



newsletter

Ltd.

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

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The significant move....

....by Mitsubishi (Japan) to link up with Veritec (Chatsworth, CA) brings the giant Japanese conglomerate into the auto ID business on two fronts.

The companies have signed a Memorandum of Understanding confirming their intent to finalize an agreement for Mitsubishi to become the exclusive manufacturer of the hand-held Vericode Symbol Scanner and to become the exclusive sales and marketing agent for the Verisystem in Japan and the Pacific rim countries. Veritec has been a public company since 1986 and characterizes itself as "in the business of providing computer-aided item identification systems for automatic data collection, component processing and traceability."

According to Veritec President Robert Anselmo, Mitsubishi has made a significant investment and has been actively involved in the development of the new scanner for two years. Vericode is a binary, two-dimensional, matrix symbol which we first noted two years ago (*SCAN* May 90) when we reviewed the various 2-D symbologies that were being offered. The symbologies -- in both bar code and matrix format -- were described at a 2-D symposium sponsored by FACT in Arlington, VA on July 11, 1990. The stacked bar codes, sometimes referred to as "dimensional," included Codes 49 (Intermec), 16K (Laserlight Systems) and PDF417 (Symbol Technologies).

The matrix codes, which are considered "positional," included Softstrip (Cauzin); Data Code (I.D. Matrix); Codablock (ICS); and Vericode. At the 1990 meeting, Anselmo reportedly said: "A hand scanner is under development which should replace the camera as a reading device."

The features and advantages of each of the two basic approaches have been generally acknowledged. The straightforward, binary, matrix codes can pack more information into a smaller area and have a greater built-in printing tolerance; but they are restricted to being read by CCD, camera-type scanners.

Stacked bar codes can be read by CCDs or with hand-held lasers which allow for off-the-surface scanning at some distance. Bar codes also have the added feature of "scanning redundancy" along the height of each bar.

Both the Vericode symbol and the hand-held reader, called Veritouch, have been patented. So far, Veritec has chosen to keep these scanning system components as proprietary products. We questioned Anselmo about whether he plans to place



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his products in the public domain. He answered, somewhat disingenuously: "No one has asked us....If it comes up, I'll address it at that time."

[In the past, symbologies that have not been placed in the public domain have not been successful, primarily because restricted products are generally not acceptable to the US government or many industries. A prime example of this is the Telepen symbol which, after 20 years of frustration, was finally placed in the public domain last year (SCAN Sept 91).]

Anselmo was very enthusiastic about the future of Vericode. Although Veritec's literature describes the hand-held scanner as being placed "over the code," he maintains that the special CCD scanners can actually "read this symbol as much as 14 inches away from the surface."

Veritec's president states that "flexibility" is the key feature of the Vericode, when compared to bar codes. "It is superior in many ways," he explains. "The Vericode symbol can contain up to 100 times more information than a standard bar code, and it has the ability to be imprinted on 98% of everything that's ever been manufactured, including metal, paper, glass, plastic, fabrics, ceramics, etc. Unlike bar codes, which are generally restricted to paper or plastic, there are 30 different methods for placing our code on a product. Our strength is in manufactured products, where the Vericode symbol can be built into the manufacturing process." The company sees major markets for the Veritouch units in applications such as publishing, document control, legal, medical and retail.

Anselmo claims that his company has already sold and installed the Vericode systems in about "10 to 20 companies" -- mostly in the aerospace and electronic industries -- but he's not prepared to announce their names. Recently, the company reported it has been notified by NASA that Rockwell International (Huntsville Operations) had successfully completed a 130-day engineering evaluation test of the Vericode symbol. The Rockwell testing covered a variety of hostile environmental operating conditions, including heat, cold, vibration, data accuracy, data density, readability under solvents and liquids, rotation and distance on a variety of surfaces.

It is still too early in the development of these mega-density symbologies to predict which will gain a significant share of the market. We noted, however, exactly two years ago (SCAN May 90), that this new phenomenon may be the "breakthrough that promises to move auto ID into expanded markets" in this decade.

Expanding the exciting prospects....

....of a bar code scanner in every home (SCAN Oct 91, Jan 92), a new consumer service is about to explode which has the potential to place scanning units with as many as 20 million families by the end of this decade.

The service -- called ScanFone -- is the product of US Order, based in Herndon, VA. Formed in 1990, US Order is 60% owned by William Gorog. (The other 40% is held by WorldCorp, a New York Stock Exchange airline holding company which provided the original funding for US Order. Gorog is a director of WorldCorp.)

ScanFone is a home-shopping and bill-paying transaction system that places a three-component unit in the home: a transaction-processor, a bar code scanner and a standard full-service push-button telephone. The transaction processor is produced by VeriFone (Redwood City, CA), a leading supplier of what it calls "transaction automation solutions." (The most familiar of these systems is used by retail establishments for electronic credit card authorization -- the company has sold about 2 million of them.) The bar code scanning light pens are made by Hewlett Packard.

The ScanFone system enables consumers to shop at home. Equipped with a ScanFone hardware package and a bar-coded catalog of more than 6,000 grocery items, consumers scan in their daily or weekly shopping lists item by item. The entire order is automatically transmitted via modem to the US Order host computer in Herndon, VA where it is processed and retransmitted directly to the local merchants to be filled and delivered. Mag-stripe credit cards are swiped (or payment can be made by cash or check when the order is delivered).

To perform the final fulfillment task, US Order has teamed up with several major supermarket chains (Safeway was among the first) and with Shopper's Express, a national grocery home-delivery service. Plans have been made for the ScanFone system to expand shortly into national mail order catalogs (Crate and Barrel has already been signed up).

According to John Backus, Senior VP of US Order, the ScanFone system has been patented. He sees many other home-based applications, including lottery systems, tickets by mail, stocks and bonds trading, takeout food and pay-per-view cable systems.

ScanFone makes their money mostly from transaction fees from the vendors who fill the orders (plus future bank participation when electronic payments will replace the expensive handling of paper checks). For example, Shopper's Express -- which has built its service based on consumers calling their orders into an 800 number -- charges \$10.00 per delivery, of which \$3.00 will be passed along to US Order. In addition, consumers will pay \$9.95 per month for the convenience of having this shop-and-pay system at their fingertips.

US Order has announced expansion to 16 cities during the next few months, including tie-ins with Safeway, Winn-Dixie and Kroger supermarket chains. Although Backus would not be pinned down as to how many units are now in place, he did confirm that they estimate a potential of 20 million installed systems over the next ten years.

One final interesting note: in its 6,000-item grocery catalog, the ScanFone system does not use the UPC symbol as its bar code. "We are using a 6-digit Code 39," Backus explains, "because we want to be certain that orders are scanned in only from the catalog. We do not want the consumers to scan items from their pantry, which we may not have in our data base."

Most public auto ID companies....

....continue to report in with very positive financial results and impressive new contracts, notwithstanding the sluggish economy:

- DH Technologies' first quarter (3/31/92) revenues increased 46% to \$12.9 million and net income went up 47% to \$1.4 million (\$.27/share). CEO William Gibbs stated that there were sales improvements both in the company's established businesses and its recent acquisitions. A year ago, the newly purchased companies -- IBI and Datac -- were performing at less than expected levels.
- Imtec has been losing ground and is the only company reporting poor results in its fiscal year. Nine month (3/31/92) revenues and income were both off: sales at \$4.6 million were down from last year's \$5.8 million; profits so far for fiscal '92 were \$71,000, compared to last year's \$342,000. President Jim Williams has attributed his company's weak performance to the current recession.
- At Photographic Sciences, it's boom-time. First quarter sales were up 71% to \$7.1 million. Profits multiplied over five times to \$916,000 (\$.12/share). President/CEO Mike Hone attributes the success of the company to the 5300 Series Laser Scanners and the Quick Check 200 Portable Verifiers. PSC also announced that John Nugent is now its European General Sales Manager. Nugent, based in Cheshire, England, is Chairman of AIM Europe and his last position was with Welch-Allyn.
- Symbol Technologies' first quarter sales were up 26% to \$89 million while profits increased 33% to \$5.5 million (\$.22/share). Although scanner revenues were up, the company emphasized in its report that the increases were also largely attributed to worldwide portable terminal sales. Since a greater portion of the company's sales now comprises integrated terminal/scanner units, this suggests that Symbol is finally hitting its stride with the integration of these two product groups. An example of this product integration is the "wearable" computers we reviewed last month (SCAN Apr 92).

[We can now reveal that these new systems were jointly developed with McKesson Drug Company, which purchased the units as part of that company's new automated warehouse distribution program. The total system was integrated and installed by Texas-based Electronic Data Systems -- a name you may have noticed in the news recently.]

At press time, Symbol announced two major new alliances:

First, the company has teamed up with its Long Island neighbor, Computer Associates (Islandia, NY), the world's leading independent provider of systems management, data base management, application development and business application software (sales of \$1.3 billion -- 8,000 employees worldwide). One example cited of the potential for this agreement is that users of Computer Associates' accounting software can replace keypunching with bar code scanning for order entry and physical inventory. An additional, underlying advantage to Symbol, according to a company spokesman, is that this relationship provides potential access to the worldwide network of several thousand resellers of CA's products.

In a separate announcement, Symbol entered into an agreement with IBM to market a range of Symbol's bar code scanner and portable hand-held computer products in Europe, the Middle East and Africa. The agreement provides for local IBM companies and business partners to purchase

Symbol products for systems solutions for IBM customers in the fields of retailing, manufacturing, warehousing, distribution, government and health care.

- Since Telxon's fiscal year ends on March 31, it is too soon to expect the company's 12-month audited results. Analysts who follow the company, however, estimate that annual sales were approximately \$214 million, up about 16% over last year. They believe earnings will be around \$1.13/share, up 24% from last year's \$.91.

The company did announce two acquisitions during the past few weeks. Telesystems SLW (Toronto, Canada) a developer and supplier of wireless data communications products using spread spectrum radio technology, was purchased for \$10 million in cash and stock. Telesystems' products are a part of the wireless spread spectrum system that Telxon recently announced it was providing to Wal-Mart stores.

In another aggressive move to integrate key suppliers of hardware and software, Telxon acquired Retail Management Systems (Des Moines, IA), one of the largest suppliers of store-level software solutions. (Terms of the agreement were not disclosed.) Founded in 1984, RMS was reported to be the first software company to successfully implement a number of auto ID industry standards into store management software systems.

- Zebra Technologies recovered sharply from last year's "unusually weak" first quarter with a 50.1% sales increase (to \$13.2 million) and a 75% earnings improvement (to \$2.3 million -- \$.19/share). Zebra's CFO Randy Whitchurch cautions, however, that projections for the remainder of 1992 should not be based on the "extremely favorable comparison between the [very strong] first quarter of this year vs. the [unusually weak] last year." According to Whitchurch, analysts estimate that Zebra's sales for 1992 will be between \$56 and \$58 million with earnings per share in the mid-80 cent range.

One of the closest followers....

....of the auto ID industry maintains a data base of current data on the financial progress of five public companies. Financial Analyst, Walt Winnitzki (Brown Brothers Harriman & Co.) provided SCAN with an up-to-the-minute printout of how Wall Street is currently viewing these companies:

	<u>Stock Price</u> (5/7/92)	<u>E92 EPS</u>	<u>E92 P/E</u>	<u>E92 Sales</u>
LXE Corporation	\$13.50	\$0.75	18.0	N/A
Photographic Sciences	11.63	0.50	23.3	N/A
Symbol Technologies	20.88	1.20	17.4	\$390
Telxon	20.75	1.30	16.0	212
Zebra Technologies	18.25	0.85	22.1	N/A

[Estimates of Earnings Per Share (EPS), Price Earnings Ratios (P/E) and Sales (in \$millions) are based on calendar year 1992 "consensus estimates" of financial analysts.]

Winnitzki, who has long been a supporter of Symbol as an investment opportunity, estimates that that company will grow in 1993 to \$460 million in sales and \$1.50 EPS.

From two of the leading non-public companies....

....there is news of significant new products, contracts and applications.

Accu-Sort has introduced the Matrix Scanning System which, the company states, "reads entire pallets, boxes, or cartons of bar coded packages at once."

This very ambitious system is described by the company as follows: "When a pallet or box is scanned, two or more scanners send the bar code data to a sophisticated logic. The logic uses Accu-Sort's patented DRX Technology to decode the bar codes and calculate exactly where the codes are on the pallet or in the box. This information is transmitted to a 386 PC which displays a graphical depiction of the pallet or box. This graphic shows the location of the labels read, not read, and/or not verified." Accu-Sort demonstrated the first pallet/matrix system at the 1992 Poultry Show in Atlanta. The company expects that matrix scanning can be used for a variety of applications where many items are held in one standard container.

Accu-Sort also takes credit for introducing the first industrial scanner to incorporate small, low-cost, laser diodes. This scanner covers 22" of conveyor and a 40" depth of field can be achieved on bar codes with a 20 mil narrow bar.

At Intermec, the synergism anticipated when the company was acquired by Litton Industries may have surfaced with the announcement of a major contract to supply Kmart with an automated material handling system. The \$5.5 million contract calls for Litton to provide an automated material handling system for Kmart's new "just-in-time distribution center" in Atlanta. Three separate Litton corporate units are combining to provide the system for Kmart, including the Intermec Division, which is supplying the radio frequency bar coding devices to insure accurate accounting of cartons as they are loaded for shipping.

Intermec also announced that its portable bar code readers were used on board the recent flight of the space shuttle Atlantis. Intermec Model No. 9445 Trakkers -- believed to be the first hand-held scanner/terminals to be sent into space -- are being used by the astronauts to track food consumption and monitor exercise during the flight. The information collected will support research into various health-related and dietary patterns in space.

The cryptic message....

....contained in the headlines of the two articles on the front page of Volume I, No. 1 of AIM's new publication, seemed to be a reflection of the ambivalence with which the organization views its new project: "Welcome to AIM Journal" is spread across the top of the page; further along, in Column 2, the second article challenges the readers with "Gone Tomorrow?"

With these somewhat insecure beginnings, AIM once again dips its toe into the water to produce a journal covering technology-related topics.

[The last such publishing effort by AIM was *ScanJournal*, a quarterly which contained technology-oriented articles -- written by outside contributors -- focused mostly on bar coding. Although it achieved a very respectable paid circulation of 2,600 (and also accepted advertising) *ScanJournal* was discontinued in early 1986 after only six issues, because it was a money loser. After the cancellation decision, AIM's President at that time, Dave (Zap) Czaplicki, had remarked: "AIM is not in the publishing business."]

The new *AIM Journal* is being handled as a much more simplified in-house effort that will be distributed free-of-charge and will not require any circulation management or advertising administration.

The 8-page first issue (April 1992) contains an eclectic selection of articles on Code 128, 2-D Symbologies, Magnetic Stripe, a new RFID Standard, Symbology Identifiers and the ANSI Label Standard. Tucked in between were a few welcome tidbits. We particularly liked the one on "eel skin purses," which discussed the weighty topic of the "widely circulated reports that magnetic stripe cards kept in imported eel skin purses or portfolios have been erased" because the material retained the "shocking properties of the living [electric] animals." It was pointed out, however, that it was not the eel skin but the magnetic clasps on some purses or the magnetic money clips carried by some men that may have actually caused this problem.

We discussed *AIM Journal* with Bert Moore, AIM's Director of Technical Communications, who is the editor of the new publication and wrote all the articles. He was pleased that he had already received a very encouraging response from about 10% of the 5,000 selected subscribers to whom the first issue was sent. Although the comments have not yet been analyzed and the future program for the journal has not been submitted to AIM's Board of Directors, Moore expects that he will be publishing two more issues in 1992, followed by six bimonthly issues in 1993. He will continue to choose the topics and write the articles, although he is open to suggestions and submission of material.

Circulation will be limited to 5,000 vendors and users. Moore hopes that distribution can be expanded through AIM's very liberal policy of encouraging vendors to reproduce articles and distribute them to their customers. Copies have also been sent to all of the AIM International organizations who may translate all or selected material into other languages or reproduce and distribute the journal in English.

COMMENT

SCAN Newsletter has always believed that the auto ID industry needs a journal for more technical subjects and we strongly encourage the continuance of the AIM Journal.

Moore's plaintive plea -- "The fate of AIM Journal is in your hands....if we don't get a positive response from readers, this will be the last issue produced" -- deserves a reply from everyone, encouraging him to continue. Our only caveat to this request applies to his description of the Journal as a summary of world topics, technical notes and application news. We would strongly suggest that the charter be expanded to also provide a forum for contributed articles on more detailed engineering and technologically-oriented subjects.

AIM's previous aborted attempt at producing a technical periodical (ScanJournal) should not discourage the association from moving once again in that direction. The industry has matured and grown in many directions during the past six years and is ready for a new beginning.

We heartily approve....

....of this year's fortuitous, overlapping schedule of ID Expo and the health industry's HIBCC Conference in Chicago during the period June 16-19.

This is the seventh running of ID Expo -- or more formally "The Conference and Exposition of Automatic Identification and Data Capture Technology" -- which has been growing in size and importance over the years. This show's 1992 venue -- a repeat of last year -- is the O'Hare Exposition Center near Chicago's airport. Sponsored by *ID Systems Magazine* and managed by Expocon, ID Expo features all of the auto ID technologies: bar code, RF/ID, RF/DC, OCR, Magstripe, Smart Cards, Voice Recognition and EDI.

On June 17-19 the Health Industry Business Communications Council has scheduled its conference at the Hyatt Regency O'Hare Hotel adjacent to the O'Hare Exposition Center. With its own offering of 25 different seminars on EDI and auto ID, as they relate to the health industry topics, HIBCC has geared the conference exclusively for health industry executives, manufacturers, wholesalers, distributors, health care providers and health care organizers.

This year, attendees at the HIBCC conference will have the added advantage of being able to visit a much broader array of product exhibits than was possible at previous meetings. In addition to the availability of ID Expo, HIBCC will showcase some of its own technical exhibits offering product demonstrations specifically for health industry applications.

ID Expo, Expocon, Box 1019, Trumbull, CT 06611; 203/374-1411
HIBCC, Box 53528, Phoenix, AZ 85072; 602/381-1091

There is a recurring lament....

....that often appears in the "Letters" section of *Advertising Age*, the highly successful and respected trade weekly that is widely read by marketing and advertising professionals. The subject of these complaints -- referred to as "Ads we can do without" -- is the sexist nature of some print ads.

We have a candidate from the auto ID industry that we believe fits this description. The recent Datalogic ad, which appeared in at least one of the auto ID trade journals, is headlined "Shrunk to Fit" and promotes the Omniscan OS510 (the company's countertop omni-directional retail scanner). The illustration, taking up almost half the ad, pictures a pair of tight-fitting jeans hugging the rear end of what most readers would presume to be a woman.

Since, other than the headline, the ad's lengthy copy makes no direct reference to the photo, it is obviously being used as an attention-grabber. We suggest that it's an ad we can do without.

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INTERNATIONAL EDITOR: Paul Chartier • United Kingdom Office P.O. Box 7 • Cirencester GL7-1HY England
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