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It was inconceivable....

....just a few months ago, that the three oldest, largest and most prominent SCAN-TECH shows would all be sold by their AIM sponsors by mid-year and that the increasingly successful ID Expo might have difficulty continuing beyond its just completed 1993 event (see below).

At ID Expo (Chicago, May 11-13), the buzz on the floor and in the hotel corridors and suites concerned the impending sale of the AIM/US SCAN-TECH conference and exhibition and the effect this change could have on future shows. [AIM/Europe and AIM/UK had just recently sold their SCAN-TECH conventions to Advanstar Expositions (SCAN Mar 93, April 93).]

During ID Expo, we questioned AIM's President Bonney Stamper and Executive Director Don Anderson about the decision to sell. "It had become apparent," Anderson explained, "that we had to do something about the show. There has been increasing pressure from a number of AIM's largest members and we were facing signs of mounting cancellations for the 1993-1994 shows. We decided we had to explore all of our options -- which were to change, merge, close or sell the event. The best alternative turned out to be the last one, and we were fortunate to be able to find such a reputable, well-established buyer."

The proposed purchaser of SCAN-TECH/US is Reed Exhibition Companies (Newton, MA), a division of Reed Elsevier, the giant international publishing company.

[Reed Elsevier was formed just six months ago from the merger of UK-based Reed International and the 113-year-old, Netherlands-based Elsevier company. The conglomerate is now a leading publisher of books, magazines and technical journals. The Reed Exhibition Companies division is the world's largest trade and consumer exhibition organizer, managing over 285 events, covering 40 industries, held in 25 countries. Two recent examples illustrate the reach and resources of the company: In mid-May, Reed Elsevier bid \$425 million to buy the Official Airline Guide from Maxwell Communication Corp.; a few weeks later, Reed Exhibition Companies bought a 49% interest in the American Booksellers Association Trade Show. Reed will also manage that ABA event -- the largest of its kind in the US.]

As we go to press, the Reed letter-of-intent to purchase SCAN-TECH/US has been approved by the AIM/US Board of Directors. The required final approval by the trade association is scheduled to take place at a meeting of the general



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membership on June 14-16 in Pittsburgh. Completion of the sale will await agreement on the final terms and conditions of the contract.

The reaction from the AIM members we have spoken with has been almost universally positive, indicating that the proposal is likely to pass. For the past several years, there has been growing frustration among the vendors about the management of the SCAN-TECH show. It was appreciated that the policy of moving SCAN-TECH/US to different locations each year fulfilled AIM's objective to educate as many potential users as possible. This strategy, however, was bound to result in some winners and losers based on the varying facilities and the quantity and "quality" of visitors.

At the same time, the exhibitors were growing more and more satisfied with the established venue of ID Expo in Chicago, where they had become comfortable with the hall, the layout of the exhibits, the hotels and meeting rooms and the convenience of the O'Hare hub airport.

As a result of these factors, plus the recent sagging economy, the question mounted each year: "Why do we need two competing 'horizontal' trade shows?" Although ID Expo seemed to have hit upon the correct venue and Expocon was doing a credible job of managing that show, the dilemma was that the AIM members were reluctant to undermine their trade organization by withdrawing from their own show. It is no secret that SCAN-TECH provides more than half the income of AIM/US and helps to fund many other association activities.

The initial break came last year when Intermec, Epic Data and Avery Dennison opted out of SCAN-TECH 92 in Anaheim. Those who did exhibit in California were not too enthralled with the results. Then, early this year, strong signals were sent by Symbol Technologies, Norand, PSC and others that they might follow Intermec's lead. Clearly, something had to be done -- and fast. The AIM/US management group heard the message and, to their credit, did act quickly.

What are the implications, assuming the sale to Reed is completed? Much will depend, of course, on how the new owners will handle their new property. Existing plans call for SCAN-TECH 93 to be held this October in Philadelphia; in the Fall of 1994, the show is scheduled for Chicago (with ID Expo slated for May 1994 in the same city). AIM's Executive Director Anderson insists those venues will be maintained.

Here, then, are some key questions which may affect the way in which the scenario will play out:

- If the sale goes through as proposed, will all AIM members swallow hard and remain with the SCAN-TECH show for the next two years, even though this commitment may require a change in plans and a strain on their promotion budgets for the short term? Having lobbied for change, it would appear to be churlish of them not to support their own organization at this critical moment.
- If the "no-two-shows-a-year" feeling prevails among the larger vendors, will this make ID Expo 94 vulnerable? With SCAN-TECH 94 held just five months later in the same city, will the leading vendors decide to skip the Spring exhibition?

- If ID Expo 94 experiences a significant drop in exhibitors in 1994 and Reed manages SCAN-TECH more successfully than before, will that signal the demise of ID Expo?
- If Reed should take a good hard look at SCAN-TECH and decide that the show could do even better if it were to be folded into one of their other properties -- e.g. the National Design Engineering Show or the International Control Engineering Expo -- how would the AIM member/vendors respond?
- If Reed decides to discontinue the SCAN-TECH exhibitor discounts offered to AIM members, will this cause a sharp drop in AIM membership? Many AIM members, one industry executive noted, join AIM primarily to gain those exhibitor discounts. (At this point, AIM has pledged to "work to ensure that AIM members continue to receive savings as a SCAN-TECH exhibitor." But there has been no guarantee, as yet, that this benefit will be covered in the purchase agreement).
- If AIM/US now devotes up to 60% of its personnel and resources to managing the SCAN-TECH shows -- as estimated by President Stamper -- will the sale portend a sharp reduction in staff and overhead expenses at the Pittsburgh headquarters? The administration has often had to defend itself against criticism from members of excessive administrative costs, and the sale of SCAN-TECH may be the opportunity to trim some of those expenses.

These decisions, to be taken during the next few months, are sure to have important implications for future marketing programs in the auto ID industry.

While roaming the aisles....

....at the 1993 ID Expo in Chicago (May 11-13), we were repeatedly asked by exhibitors and vendors: "Did you see anything new or exciting at this show?" At which point, everyone would generally agree "Well, not really new -- but maybe that's a sign that the industry has matured."

This exchange would be most often followed by more rationalizations, such as: "We need to open up a major new application -- for instance, [pick one] health care/currency coding/document tracking/2-D symbology;" or "Is automatic data capture really an industry, or is it just a subset of [pick one] material handling/computers/information systems?"

To a large extent, all of these comments were valid. They reflect a slightly nervous environment in which the overall growth curve of the industry has flattened noticeably (that's one sign of maturity). With an even greater intensity than in the past, companies are seeking that next broad-based application -- such as the previously successful ventures into retailing, US government logistics marking (LOGMARS), package delivery and warehouse/distribution -- that will provide the platform for the next business surge.

But signs of any new major markets or breakthrough technologies were not apparent at the O'Hare Convention Center. What we did find were interested users attending in record numbers (according to Expocon's preliminary figures), and vendors who said (though without much enthusiasm) that they were pleased with the quantity and quality of their inquiries.

This apparent ambivalence was not too surprising. The two largest companies, Symbol and Telxon (with combined revenues comprising about 20% of the US-based auto ID industry), had reported less than stellar performances during the past year; some middle tier companies, e.g. Norand and Zebra, are currently buzzing along at a record clip; and others, such as PSC, are cautioning that sales this year and next may be a little flat with earnings under pressure (see below).

But there were a few special features that did catch our attention at the show:

- A fully operational, 12-station printing press churned out a new type of pressure sensitive label. (See below.)
- After six years of development and following two years of actual use in the field, United Parcel Service decided to exhibit their proprietary UPScode at a show devoted to automatic data capture. (See below.)
- The hottest technology being written about today in the trade and consumer press is "Virtual Reality." According to the cognoscente: "Don't ask for a definition -- you'll know it when you see it." The Reflection Technology exhibit was as close as the automatic data capture industry came to VR. (See below.)
- The up-and-down pattern in radio frequency identification (RF/ID) seems to be on the upswing, with a larger number of more aggressive exhibitors showing their wares -- but with problems. (See next month's edition of *SCAN*.)

At one point we imagined we were at a forklift convention. We spotted at least six of these large pallet-movers -- in the booths of Intermec, LXE, Norand, Spectra-Physics, Symbol Technologies and Telxon -- demonstrating the use of real-time auto ID and RF in the warehouse.

Overall, we found ID Expo to be diverse, interesting and moderately upbeat, despite the absence of any major new technologies or business opportunities.

Part of the challenge....

....in evaluating any auto ID show is that those of us who are regular visitors tend to dwell on the "new" and "innovative." We forget that these exhibitions and conferences are not really too concerned about the special visitors -- such as the press -- who have been attending two shows a year for many years. The vendors are really geared up for the managers, engineers and systems designers who are either new to automatic data capture or want an update on what's been happening since they installed their systems a few years ago.

Another reason that ID Expo may not have appeared to be very sensational this year is that most companies seem to target the SCAN-TECH convention in the Fall for the first showing of their new products. After all, SCAN-TECH has been around for ten years and, until just recently, was not seriously challenged as the industry's premiere showcase.

Given those caveats, we found several notable products which deserve attention:

"Virtual" Auto ID

A demonstration by Reflection Technology (Waltham, MA - 617/890-5905) convinced visitors to their booth that they really could focus and comfortably read information on a 25-line/80-character/1" square screen suspended just beyond the tips of their noses. The company, which first introduced this "virtual display technology" in 1990, has since sold its Private Eye Headset to more than 1,000 companies in industries such as home entertainment, aerospace, manufacturing, medical and education.

At ID Expo, Reflection Technology linked its virtual display component into a larger system -- which included a PC compatible computer with voice recognition and terminal emulation software; a mobile digital radio; a base radio configuration that connects to a host; a removable battery with a separate charger; a headset with a display, microphone and speaker; and an optional bar code scanner.

The result may not be "virtual reality" -- but it incorporates the appearance and accoutrements of this latest "hot" technology (as described in *Newsweek's* cover story of 5/31/93 and showcased on ABC-TV's recent "Wild Palms" mini-series.) The user wears a "flak" jacket (which carries the computer/bar code scanner, radio and battery pack) and a headset (complete with earphones, microphone and the special display terminal).

The result is a hands-free, walking, talking automatic data collection and communications mechanism/person -- able to drive a forklift, pick orders, operate a press and function on-line, real-time, in a wide variety of situations. An installation with a base station and seven satellite operators would cost approximately \$50,000.

Stuck on Itself

Another attention-grabber was the fully-operational, 10-ton, 45'-long, 12-color press from KoPack International (Tokyo) that was producing liner-less, pressure-sensitive labels. Starting with two rolls of plain paper, each web is fed -- at speeds up to 360 feet per minute -- through six stations, which apply a coating of adhesive, a coating of silicone and then four-color printing. The two webs are then adhered, back-to-back, without any liner paper.

This proprietary method of incorporating the silicone permits the labels to be easily separated when needed. The advantages cited by KoBel International (Milton, VT -- the distributor of these Japanese-made presses in the US, Canada, Latin America and Europe), are the reduction in material cost and improvement to the environment resulting from the elimination of the liner.

The exhibit also featured separate thermal-direct/thermal-transfer/dot matrix/laser secondary printers which produced bar codes on back-to-back labels -- imprinting both sides of the liner-less sandwich -- on a single pass.

Although the contract has not been finalized, Moore Business Forms (Lake Forest, IL) is scheduled to operate the only KoPack press installed in the US. Under the terms of a proposed agreement, Moore will be the exclusive American distributor of the liner-less, pressure-sensitive labels.

Laser Gun Update

Spectra-Physics continues its aggressive product development and marketing of hand-held laser scanners. The company's new SP400 AutoRange can read bar codes "from less than 6 inches to more than 7 feet [using] liquid crystal technology which acts like a camera's aperture to vary the scanners' focus automatically."

According to Tom Durant, VP Marketing, Sales and Service: "The liquid crystal device has no moving parts, so it won't wear out the way mechanical systems do. No other scanner focusing system on the market uses liquid crystal technology, and patents for the technology have been applied for."

Another version of this laser gun, the SP400 High-Density, will read bar codes with an "X" dimension as small as 3.5 mils. Intended for applications using small tags or labels -- e.g. retail jewelry tags or small subassemblies -- the SP400 High-Density also has the capability to read Codes 49 and 16K in stacked or two-dimensional format.

In a move to intensify its marketing efforts in the highly competitive food retailing industry, Spectra-Physics announced its decision to target the 75 largest US food chains and sell to them directly, rather than through distributors. According to the company, the decision was based on their market research which showed that "buyers are now sophisticated enough to assemble their own systems and do not want to pay additional markups for distributor services like installation and training." Sheila Tolle, Spectra's Marketing Manager, told *SCAN*: "We have increased our direct sales force in the US from 10 to 30 people and have opened additional offices to manage this effort."

As for the impact that this change will have on their distributors and OEM customers -- probably including IBM -- Spectra is betting that their major supermarket customers are prepared to assemble the necessary hardware and software components from multiple vendors, and that if they did not make this move, they would probably lose many sales to other scanner manufacturers.

In analyzing Spectra's decision, a major distributor of POS systems told *SCAN*: "Spectra has excess manufacturing capacity for their laser scanners and they want more direct control over the sales and marketing to the end users. It remains to be seen whether they can find the experienced sales personnel to be effective in that specialized market. Many of the distributors of Spectra's scanners are value-added resellers and even value-added manufacturers, who are adding their own software and hardware products to the systems sold to the end users. With that extra margin [the discount that they now give to their distributors] Spectra is betting that they can lower their end user-prices to be more competitive and still make more money."

New QC Tools

Bar Code Systems (Atlanta, GA) and RJS (Monrovia, CA) introduced new "on-line bar code verifiers." These units are added to thermal printers -- Zebra and Fargo printers were used in demonstrations -- as a check to insure that each label meets industry standards.

RJS has been selling its own thermal printer, since 1989, with an internal verifier to check every label. This new approach allows the user to mount an external verification device to existing printers to check quality.

Continuing its very aggressive marketing of the more traditional stand-alone quality control devices, PSC introduced its new Quick Check Model 600 line of bar code verifiers. These completely restyled units, with enhanced features, will replace the Quick Check 300, 400 and 500 series that the company has successfully sold for many years. The new 600 series, with pen scanner, will be priced from \$1,995 to \$2,495, depending on features and options. A PSC hand-held laser gun can be added for an additional \$300. Deliveries will start third quarter 1993.

Upping the UPScode Schedule

UPScode (pronounced as one word, like "upscale") is the patented, two-dimensional symbology and specially-designed reader developed by United Parcel Service (*SCAN* Dec 90). After field-testing the system for two years, UPS decided to introduce the equipment to the general public.

As to why they selected an automatic data capture show such as ID Expo to make this debut, a company representative told *SCAN*: "We feel that the visitors to this show are users who are bar-code-oriented and would understand what we are attempting to do. It is a public relations effort and we want to evaluate the reactions of the people that are here."

At a UPS distribution center in Lawnside, NJ -- where the test was conducted -- an operator (using voice recognition equipment) voice-encodes the destination zip code of each package, which is then printed on a label in the UPScode symbology. The single reader at this facility then scans and diverts the package to the individual trucks at loading docks.

By the end of this summer, a similar system, employing 30 readers, will be installed at a larger UPS facility in Grand Rapids, MI. Within two years, the next major step will be to run the system at the Chicago Area Consolidated Hub which handles 4 million packages per day (about 30% of the total UPS volume of packages in the U.S.). Ultimately, the UPScoded label will contain complete shipping and customer information, including the zip code, the tracking number, the service features (regular, air, etc.) and 50 characters that can be selected by the customer. The UPScode symbol can encode up to 100 characters of data in one square inch. It has a bulls-eye locator pattern at its center with a matrix-like pattern of dots scattered throughout the rest of the area.

UPS undertook their own development of the UPScode symbology and CCD array scanners about six years ago because the company felt there was nothing commercially available to meet their requirements. Up to this point, UPS has printed and applied all UPScode labels in-house. According to the company spokesman, UPS may select a few large customers, on an experimental basis, to print the UPScode labels and apply them on their packages prior to shipment.

At ID Expo, UPS demonstrated an overhead CCD scanner that read a selection of bar code labels (UPScode, Code 128, Code 39) at varying distances. The overhead reader is omni-directional with a 36" depth of field and a throughput of up to 500 feet per minute.

Eventually, UPS expects to develop a hand-held version of their CCD scanner which will be placed on every delivery truck. (They are currently using laser guns built around Symbol Technologies' scanning modules to scan Code 39 bar coded labels.) The company did not release any information as to who will be manufacturing their new CCD scanners.

In a turnabout....

....from his previous hard and fast position, PSC's President Mike Hone has been persuaded to issue a forecast of sales and earnings for the coming year.

[Hone had resisted previous pressures from stockholders and financial analysts to predict his company's future performance. During the past few years -- while PSC experienced rapid growth and success -- the company's increased sales and earnings record (and excellent stock performance) gave Hone the support he needed to withstand the requests for these forecasts. However, at the end of May, the stock was sitting at \$7 per share, close to its 12-month low and about half of its 12-month high.]

For 1993, Hone now anticipates that sales will reach \$37 to \$41 million, compared to last year's \$35.9 million. Earnings for the 12-month period are predicted to be in the \$.30 to \$.40 bracket -- possibly as low as \$.25 to \$.35, cautions Hone -- compared to 1992's \$.59 per share.

He attributes the flat sales and lower earnings to difficult economic conditions and, more specifically, to the completion of the very large orders received from Telxon to fulfill the Walmart contract. Although the Walmart business will be sorely missed, Hone reaffirmed that Telxon remains a major customer of PSC.

In a new offering....

....to educate the users of bar code systems, Scott Olsen has formed EduTec. Originally the Educational Services Division of Dytex (St. Paul, MN), EduTec has been split off by Olsen as an independent company.

In addition to continuing his program of "hands-on interactive seminars," Olsen has developed an innovative Do-It-Yourself Bar Code Master Plan -- "a visualization process for modeling or simulating systems design." One innovative feature is the use of simple clip art symbols on removable pressure-sensitive labels to facilitate layouts and flow charts.

"This do-it-yourself tool," Olsen cautions, "does not mean [that it is a] do-it-ALL-BY-yourself. The Master plan was [not] designed to replace a consultant, but it can be used by the potential user to pinpoint his objectives and organize his resources before calling in a bar code data collection consultant [at] \$750 to \$1500 per day, plus expenses." EduTec, 1336 Energy Park Drive, St. Paul, MN 55108; 800/854-9157.

Continuing with the topic of education, Dr. James Fales announced the upcoming Automatic Data Collection Educators Institute for University and College Professors (July 19-23). Co-sponsored by AIM/US and Ohio University, this excellent one-week summer program is dedicated to "teaching the teachers" about auto ID. For the past six years, AIM has provided the funding for meals, lodging and up to \$300 in travel allowances for each participant. There is no tuition cost. Dr. James Fales, Center for Automatic Identification, Ohio University, Athens, OH 45701-2979; 614/593-1452.

SCAN NEWSLETTER, LTD. • 11 Middle Neck Road, Great Neck, N.Y. 11021 • Phone: 516/487-6370 • FAX: 516/487-6449
PUBLISHER/EDITOR: George Goldberg • ASSOCIATE EDITOR: Jeff Goldberg • CIRCULATION DIRECTOR: Teddy Allen

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