There are 18 application areas....

....that are identifiable for bar coding in a hospital, according to the American Hospital Association's Special Survey Report on the Status of Bar Coding in Hospitals by Karen Longe, AHA's resident bar coding guru. In her cover letter accompanying the report, Longe writes: "Bar coding is becoming essential to the swift and accurate delivery of health care services, whether it is in the admitting room or at the patients' bedside, in the pharmacy or in the surgical suite. Bar coding increases accuracy and improves productivity and quality of care, and there are appropriate applications for the technology in almost every hospital department."

Longe goes on to report that "the use of bar coding is increasing rapidly, and its future in health care delivery is a certainty." The evidence from her own survey, however, indicates that this phenomenon is happening more slowly than anyone would like, or had anticipated.

The primary reason for these delays remains the same: implementation of auto ID systems has invariably been a market-driven process and the hospitals have not taken a strong unified position on this issue. Successful broad-based industry applications -- whether in retailing, automotive, government or blood banking -- only happened when the users decided they needed and wanted bar coding.

Of all the industries targeted for auto ID, the health providers may present one of the most formidable challenges. While no one disputes the value of automatic identification in this market segment -- which has such a desperate need for improved efficiency and reduced costs -- why, then, are so few hospitals moving to take advantage of the benefits offered?

In a recent interview with SCAN, AHA's Longe put it this way: "The basic problem is getting the hospitals to invest in cost-avoidance rather than income-producing programs. The hospital administrators are under pressure to cut costs by reducing current expenses (salaries, number of employees, utility costs), while the medical staffs are clamoring for more C-T scanners and Magnetic Resonance Imagers (at $1-2 million per copy). The industry may have been initially oversold on bar coding, and led to believe that the value of these systems was self-evident and they would happen by themselves."

Robert Hankin, President of the Health Industry Business Communications Council, recently offered *SCAN* a different point of view about this problem. Hankin feels that bar coding has failed to capture the attention of the decision-makers in the nation's hospitals. "The CEO's and financial executives," he observed, "are just not enamored with bar coding. They see it as part of a larger, more comprehensive technology. They think it is too focused to gain consideration on its own."

Because of this perception, the HIBCC 89 Conference, held on June 21-23 in Philadelphia, switched its emphasis from bar coding to EDI. Hankin believes that attendance increased substantially over last year because two-thirds of the seminar programs were EDI-oriented. There were 500 registrants at the conference, including about 175 health care provider representatives. Hankin noted that these hospital attendees were primarily "CEO's and other decision-makers."

"EDI has more pizazz than bar coding," Hankin maintains, "and these executives from the health provider institutions see it as the wave of the future." While admitting that EDI communications with trading partners have limited applications in hospitals, and that EDI has little relationship to the more widely used bar coding systems, he nevertheless complains: "Bar coding is misunderstood and devalued by hospital executives, and the technology has no champions in these institutions. When the medical professionals want their new toys, they get them, but no one is pushing for bar coding."

This lack of support for bar coding becomes even more difficult to understand given the successful installation showcased at Thomas Jefferson University Hospital in Philadelphia. At HIBCC 89, 200 delegates were bused to a featured seminar at the Jefferson Hospital where the impressive implementation of bar coding was demonstrated. Eight application areas have already successfully installed bar coding, and the next steps are designed to bring the technology right to the patient's bedside. The key to the program's headway has been a strong central bar coding committee which administers an overall plan for full system integration.

The Jefferson experience also points up one of the difficulties often encountered by hospital management teams when they examine the auto ID alternative. According to Karen Longe, the 18 separate functional application areas within a hospital -- including pharmacy, radiology, clinical laboratories, maintenance, medical records, materials management, asset management, nursing, and the administration of patient medication (with its built-in problems of unit-dose coding and marking) -- must be viewed, ultimately, as part of a total system built around patient care.

> [The AHA survey, by the way, indicates that bar coding in the materials management area is by far the leading application in large hospitals, accounting for almost half of all active installations reported at the end of 1987.]

Where is the leadership to come from that will drive this market? The most logical place is the HIBCC. When we recently discussed this problem with several HIBCC Board members (all of whom requested anonymity), a consensus emerged about one of the key obstacles they face: The HIBCC is often hamstrung by the self-interest positions taken by the various industry segments which the HIBCC represents -- i.e. hospitals, drug manufacturers and distributors, equipment manufacturers and distributors, and auto ID manufacturers. The

health providers have not yet had the strength or authority within the Council to lock in standards, initiate required educational programs, or establish firm deadlines for compliance.

There is a long way to go and much to be done. The AHA survey questionnaire was sent out to more than 3,100 hospitals, each with over 100 beds. (Currently 100 beds is considered the minimum size for the successful implementation of bar coding systems.) Of the 837 hospitals that replied, only 4 had instituted bar coding at the nursing stations, 24 for medical records, 42 in pharmacy and 34 in radiology. These figures probably represent even smaller proportions than is apparent from the numbers, since it is reasonable to assume that the 1 out of 4 hospitals that replied to the survey are among those facilities that are most committed to bar coding.

Education, which has always been a key to success in the auto ID industry, is probably an even more crucial factor in the health industry -- and the current HIBCC efforts in this area seem pitifully inadequate. As one HIBCC Board member put it: "Interest would go way up if, at the very least, the education programs were to feature 'How to Cut Hospital Costs,' since that's really what the hospital people are concerned about."

For a copy of the AHA Special Report: AHA, 840 North Lake Shore Drive, Chicago, IL 60611; 800/242-2626.

From the earliest days of UPC....

....the objective of the scanning retailers to remove prices from individual products has met with regional opposition from consumer activists and supportive legislators.

In the 1970's, a number of states passed legislation which forbade, or severely restricted, item-price removal. The retailers' arguments, which fell on deaf ears, were that the consumer was best served with accurate shelf marking, unerring scanning registers, and precise, detailed receipts. It was an emotional issue and some of the lawmakers became convinced that the consumer needed protection. The battle was especially fierce in the two largest states -- New York and California.

The controversial matter of item-pricing surfaced again recently in New York, where the state's 13-year old law was due to expire at year's end. Lobbying groups from both sides were pressuring the legislature in their debate as to whether to renew the law, amend it, or let it expire. The issue was joined by the New York State Food Merchants Association (representing the supermarkets) squared off against the New York Public Interest Research Group, which was joined by the powerful AARP senior citizen's association and the United Food and Commercial Worker's Union. (PIRG is directed by college students based on 17 campuses and represents 40,000 "citizen members.")

One of the main arguments advanced by the New York retailers was that stamping or labeling the price of each product on the shelf adds $150-200 to the average family's annual grocery bill. This was hotly disputed by Travis Plunkett, of the NY PIRG who called it "an outrageous exaggeration." Plunkett claims that the real savings amount to only about $12. He contends that this is more than exceeded by the direct savings the consumer gains through selective comparison shopping based on item-price-marking.

Way out in front of this dispute is Robert Wegman, the 70-year old Chief Executive of Wegman's Food Markets in upstate Rochester, New York. Wegman's chain is just not complying with the item-pricing law. In a recent newspaper interview published in *Newsday*, he described the state law as "baffling, discriminatory and goofy." The NY State Attorney General's Office, while admitting the law has not been strictly enforced until now, has taken up Wegman's blatant challenge and plans to prosecute the retail chain.

Wegman, who was active with the industry's Ad Hoc Committee that developed UPC in the early 1970's, claims that his chain is now saving almost $2.5 million annually in labor costs by cutting the number of clerks required to item price. His refusal to pay the $12,500 in penalties already assessed against him has brought his case to the attention of the Attorney General.

Meanwhile, the New York State legislature wrestled for months with the item-pricing issue in an attempt to compromise the various positions. Finally, on June 30, in the legislature's annual end-of-the-session ritual of staying up all night to act on a raft of bills languishing in the hopper, the lawmakers voted. They gave final approval (just as dawn was breaking) to a bill that extends the existing law and requires item-pricing to continue for the next two years (until June 30, 1991).

The lawmakers also directed the Executive Branch to submit studies on how to strengthen the law so that the Attorney General can deal more effectively with Mr. Wegman's supermarkets. From all indications, the consumers have won this skirmish in NY, and item-pricing will remain in effect for the foreseeable future.

> [Footnote: The Washington, D.C. office of the Food Marketing Institute -- the retailers' trade organization -- has been tracking this problem over the years. According to FMI, 8 states currently require item-pricing: California, Connecticut, Massachusetts, Michigan, Minnesota, New York, North Dakota and Rhode Island (plus some local jurisdictions in Florida and Illinois). Of course, FMI officially supports scanning and "opposes legislation mandating item-pricing at all government levels." Interestingly, however, FMI maintains a fairly low profile on the issue. Michael Rosen of the NY State Food Merchants Association further complained: "I was surprised that there was no support for our position from the POS equipment vendors."]

An indication of how far....

....and how fast auto ID has moved these past few years, is the decision reached last month by the Directors of the <u>Automatic Identification Manufacturers</u> (AIM/USA) to move into their own brand-new facilities. AIM has purchased a 3-acre site and will construct a 12,500 square foot building (in an industrial area of Pittsburgh) to house their growing staff -- currently at 15 employees.

"We look upon this as a transfer of assets from cash to real estate," explained Executive Director Bill Hakanson. Earlier this year, AIM/US adopted a 1989 budget designed to break even between income and expenses. The organization's reserve funds were deemed sufficient to backstop any emergency, and allow for the funding of more projects -- <u>even</u> <u>if</u> <u>they</u> <u>are</u> <u>not</u> <u>profitable</u>. [Although we

don't pretend that our "open letter" to Chet Benoit had any direct effect on this decision (*SCAN* Jan 89), it is gratifying to learn that AIM will have the resources to pursue new and valuable projects beneficial to the industry.]

AIM is moving ahead with a number of significant programs which are based on recognition of its position as the only available "home" for the various auto ID technologies and also of its strengths in the administration and promotion of trade shows.

We discussed some of these plans in an interview with Hakanson at the end of June:

- "We are very interested in bringing the EDI vendors under the AIM umbrella," Hakanson explained. "We envision this group operating as a bureau, similar to AIM's relationship with FACT -- administrative services will be provided and technology exchanged, but the EDI organization would remain independent with its own rules, budgets, programs and published standards." Today's EDI companies fall into three categories: network services, software and consultants. Hakanson, who revealed that discussions are already under way, sees a natural affinity between EDI and auto ID. "They feed off one another," he says, "but the primary problem, as I see it, is to convince the EDI group that they are a bona fide technology."

- The Quick Response 89 seminar program last March, was deemed a success and Quick Response 90 was immediately announced for March 20-21 next year, to be held at the same location in Dallas. This event is representative of AIM's program to reach out to other industries and organizations in a cooperative effort at joint sponsorship of seminars and exhibit programs. Quick Response, which targets the retail trade, is co-sponsored by AIM and VICS (Voluntary Interindustry Communications Standards). QR 89 attracted retailers, as well as textile and apparel manufacturers, who came to learn how auto ID and EDI can be integrated to provide increased cooperation among trading partners and ultimately produce cost and operation efficiencies.

  [VICS, the loosely confederated ad hoc group organized 3 years ago, seems to have taken on a life of its own. Originally intended to phase itself out of existence after one or two years, the organization is now undergoing a re-examination of its mission and may be looking for a home base to administer its affairs. AIM is a likely candidate to become that agency.]

- Other groups that are in various stages of discussion regarding possible AIM affiliation are the automotive industry's AIAG, health industry's HIBCC and unaffiliated companies in the Security Access business.

Meanwhile, AIM's membership continues to expand, with 13 new companies admitted since the beginning of this year (bringing the total to over 130 active members). The Technical Symbology Committee, under the leadership of Ted Williams (Laserlight Systems), is undertaking a follow-up to its Bar Code Performance Test (SCAN May 88) to include new symbologies such as Codes 49 and 16K. [We understand that the TSC is exploring new testing methods in an attempt to improve execution and to avoid the mistakes and criticisms of the last test.]

We firmly believe in the value of a strong trade association, particularly in a relatively young industry made up primarily of small companies. AIM deserves the support and encouragement of everyone. It is not easy to submerge the special interest of the individual members for the general improvement of the industry, but everyone will benefit from it.

Ultimately, the question....

....comes down to this: Are admittedly inaccurate estimates -- about the size of the automatic identification industry -- better than no such statistics at all? We've complained about this subject before (*SCAN* July 86), but at the risk of beating a dead horse, we'll tackle it again.

The worst example -- probably because it is the most ingenuous idea and because it emanates from the industry's trade association -- is the tri-annual "Automatic ID Market Growth Survey of AIM Member Companies." This informal poll, which was started in 1986 by "Zap" Czaplicki (as something of a lark, when he became President of AIM), seems to have now grown into an institutionalized survey.

At the three organization meetings of each of the past three years (February, June and December), slips of paper were passed out to all the member-attendees. One person from each firm was asked to write down -- anonymously -- the current and following year's estimated sales of his company.

The resulting "hash" totals are later released to the members and to the media. It doesn't matter how many companies participate (the count has varied from 49 to 89). And, although there is a cautionary note pointing out that this is not a scientific study, no attempt is made to reconcile or explain any discrepancies.

For example:

- In the three surveys taken in 1988, estimated sales for that year alone varied by almost 50%.

- At the December, 1988 meeting, the sales for 1988 were pegged at $1.4 billion and for 1989 at $1.9 billion. Two months later, at the very next meeting, the estimate for 1989 was $1.3 billion and for 1990 it was $1.6 billion. From these numbers we could conclude that AIM was revising its forecast downward for 1989; and we could also conclude that AIM members are anticipating a sales decline in 1989 as compared to 1988.

- No attempt is made to identify duplicate sales of the same merchandise. AIM membership is vertical; i.e., there are component manufacturers who sell to OEMs, who in turn market their products to wholesalers, distributors and system integrators. Therefore, the same million dollars of wands or laser guns could be, and often is, reported three or four times in each survey.

- One of the largest companies in the industry sells more than 50% of its hand-held laser scanners -- both OEM and direct -- for retail applications. The total value of the complete point-of-sale systems is not included in the AIM survey. When these same types of scanners are sold to an AIM member-company -- for integration into a factory-floor data collection system -- not only is the value of the scanner component duplicated but, in addition, the entire computer and material handling hardware/software package is included.

COMMENT

There are many more inconsistencies that could be shown. The point is that this is not a game! We need good statistical information to help in market planning and for investors to get a realistic handle on the automatic identification industry. There are companies and individuals making hard dollar decisions daily based on the best information they can find.

Misleading information, published by the industry's leading and generally respected trade organization, is a <u>dis</u>service that should be discontinued immediately.

The program to integrate....

....its independent distributors into a corporate direct marketing group has been considered an overall success by <u>Intermec</u> (*SCAN* June 89), notwithstanding a number of difficulties encountered along the way. One of the acquisitions that did not go completely as planned was that of the Swiss-based <u>Intermec-Strichcode AG</u> distributorship two years ago.

The 1987 purchase agreement stipulated that founder-owner <u>Stefan Peters</u> was to be paid 500,000 Swiss Francs and, in addition, be given a 5-year employment agreement as Managing Director of the new company. [Last year, Intermec-Strichcode was reorganized to cover the German-speaking countries, Germany, Switzerland and Austria, with headquarters in Zurich.]

This past January, Peters was fired by the Intermec Board of Directors. Peters maintains that he has never received any satisfactory justification for this abrupt termination, and he has started legal action in the Swiss courts. The lawsuit (which, under the Swiss system, is to be settled by an arbitrator) asks for payment of his unpaid salary for the 3 1/2 years remaining on his contract. Following the completion of this suit, Peters recently told *SCAN*, he plans to pursue further legal action to recover the unpaid portion of the original purchase contract.

Meanwhile, Peters, who is the immediate past Chairman of AIM Europe, has started a new company under the name of Automatic System Integration. He will distribute auto ID products for both Welch-Allyn and Eureka (a European RFID company).

Automatic System Integration, Binzholstrasse 35, 8636 WALD, SWITZERLAND; Telephone 055 95 40 78.

The rumor mill....

....was spreading the story for a few months, but <u>Mark Marriott's</u> move from Numeric Arts to Symbol MSI wasn't confirmed until mid-June.

In 1977, Marriott -- who characterizes himself as "one of Europe's bar code pioneers" -- formed Numeric Arts as a division of British Printing and Communications Corporation, and the company has since grown to become a major supplier of bar code products. The company's product line includes Symbol Technology's verifiers and hand-held scanners.

> [British Printing was owned by Robert Maxwell until early this year, when the British communications tycoon sold the company to its management group in the UK's largest LBO to date. Maxwell needed the cash to pursue his empire-building in the publishing and TV sector. Marriott was not part of that management group. The new Managing Director of Numeric Arts is Mike Sheard.]

In his new position at Symbol MSI, Marriott will be Director of International Marketing. He will report to Paul Berge, Symbol MSI's Corporate VP, International Marketing. Marriott will be based in the company's new European headquarters in Wokingham, England which was MSI's European base before the merger.

The elevation of Berge to Corporate VP status is one of the indicators of the importance that Symbol MSI is now placing on international sales. Although Berge continues to live in Brussels and maintains an office there, the international base of operations is now located at the corporate offices in Bohemia, New York.

Both Berge and Marriott have been very active in the various AIM/Europe organizations. Berge was the founding Chairman of AIM/Europe and guided that association through its first two years. Marriott was the founding Chairman of AIM/UK and held that position for two years. Both have been the recipients of the *SCAN* Newsletter Industry Achievement Award -- Berge in 1985 and Marriott in 1986.

A flair for story-telling....

....and a wry New England sense of humor, combine to make <u>Ben Nelson</u>'s regular articles in *ID Systems* (as well as his lectures and presentations at trade shows) special educational events. We are prompted to write about him this month because of his article in the May issue of *ID Systems*, about the 348-foot bar code label made for the Palomar Mountain Observatory.

Nelson describes how the 200-inch, "20-ton piece of Pyrex" was ground to a tolerance of 2 millionths of an inch, mounted in this incredibly complex rotating mechanism and, finally, how it needed a continuous label longer than a football field to be scanned in order to position the entire 100-ton dome to within a few tenths of a second of arc.

It was a great piece, Ben!