



# newsletter

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

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## Using "narcs" to create the database....

....for a new type of bar coding system is really bringing automatic identification into the real world.

There is proposed legislation -- Senate Bill S.1475, currently before the Senate Banking Committee -- that will require the bar coding of US currency. As introduced by Senator John Kerry (D-MA), the dual intent of the law will be to trace "marked" money to the major drug dealers, and also to identify those banks that are laundering the dealers' illegal drug profits. One of the factors that makes this money-marking approach attractive to the proponents of the bill is the theory that the top drug dealers do not actually touch the drugs themselves, but they do ultimately handle the cash.

The plan goes something like this: When making an undercover "drug buy," narcotics agents would pay with bar-coded bills whose serial numbers will have been recorded. In the daily war against drugs, successful drug raids not only capture some dealers and their narcotics, but also pick up a great deal of cash. Scanning this currency, and tracking some of it back to its origins, can uncover new information about the drug networks.

Phase II of this plan contemplates the Federal Reserve Bank scanning all currency received from their member banks, while looking for a "match" with the serial numbers of drug money listed in their database. When a match occurs, the offending bank can be identified and monitored. In Phase III, bar code readers might be placed in every bank to scan all currency -- as it is deposited -- in order to immediately identify the criminals.

[Just to get some perspective on the size of the problem, consider the following: approximately \$1 trillion is handled daily by the banks -- physically and electronically -- from all sources. Money related to drug trafficking is variously estimated to total \$100-200 billion per year -- of which as much as \$250 million per day is deposited in banks; this \$250 million, therefore, represents only one-fortieth of 1% (.025%) of the total daily bank handle; in 1988, there were 6 million Cash Transaction Reports (on deposits and withdrawals of \$10,000 or more) filed by the banks, only a small fraction of which were actually audited. The inevitable conclusion, from these overwhelming numbers, is that trying to trace drug deposits -- through their complex interlocking transactions and transfers -- is virtually impossible using current methods.]



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INCLUDING THE INTERNATIONAL EDITION

Given the enormous logistics problem (and keeping in mind that a bank can earn over \$250,000-a-day in interest on deposits of \$1 billion), the conclusion was that this problem was never going to be solved by relying on the banks to act as policemen. The proposed solution, therefore, is to bar code all large denomination bills (\$20 or more), plant some in the drug community, and then track them as they're introduced ("laundered") into regular economic channels.

[Appearing on the ABC-TV program "Business World" on Sunday morning, September 10, Sen. Kerry told host Sander Vanocur that the "cost of installing this bar coding system will be the cost of the ink." From these remarks, it didn't seem as if the Senator had completely accounted for the cost of high-speed scanners to read all of the currency captured or deposited, nor the cost of the special printing equipment that would be needed to print consecutive bar code numbers on the currency notes.]

The Banking Committee is planning to conduct hearings on the bill within the month. According to James Brenner, Legislative Assistant to Sen. Kerry, both the US Treasury and the US Mint oppose the bill and are "stonewalling" the committee. Brenner says that the two federal agencies are suggesting it would be easier to just scan the serial numbers presently on the currency (a 10-character, alpha-numeric code printed in green, twice, once on each half of the face).

As introduced, S.1475 calls upon the Secretary of the Treasury to consult immediately with experts in the fields of coding, symbology, scanning systems, computer data compilation and printing technology. Within six months after the bill is passed, the Secretary would be directed to "promulgate regulations that require each United States currency note...of a denomination of \$20 or more to be of such form and design that a serial number on each...may be read by electronic scanning."

Oh, yes, we almost forgot to mention that Ted Williams, President of Laserlight Systems (and Chairman of the AIM Technical Symbology Committee), also appeared on the "Business World" TV show. Williams (a resident of Massachusetts and a constituent of Sen. Kerry) was interviewed regarding the uses and underlying technology of bar coding, and he effectively demonstrated the accuracy and speed of automated scanning.

#### "Deep Pockets" has been identified....

...as the Nitto Denko Corporation, whose tender offer of \$18.50 per share, a few weeks ago, has been accepted by Graphic Technology (SCAN Sept 89). The primary products of the Japanese firm are electrical insulating materials, with \$1.4 billion in annual sales and, reportedly, \$1 billion in cash on hand.

[Last month, GTI's President, Terry Van Der Tuuk, told SCAN that he had agreed to sell his company (trading on the American Stock Exchange) for \$56 million to a "foreign corporation with large resources." At that time, he would not identify the buyer, since the acquisition was still subject to approval by the Directors of both companies.]

According to Van Der Tuuk, this was a logical move by Nitto Denko, which already owns two US companies -- Permacel, a New Jersey-based pressure-sensitive label manufacturer, and Hydronautics, a California company making water filters -- and is looking for additional US acquisitions. Nitto

Denko was seeking direct entry into automatic identification and buying GTI was an important part of its acquisition program.

The Japanese company recently developed two products with auto ID potential: the first is a ceramic-based, bar-coded material particularly suited to high-temperature applications such as printed circuit boards and CRT tubes; the second product is a fabric-like material (not yet otherwise identified) upon which bar codes can be printed that will withstand laundering and will be applicable as sewn-in tags for hospital laundries, uniforms and linen supply. (Van Der Tuuk indicates that this proprietary material would be manufactured in Japan and printed in the US by GTI.)

Of particular interest to Nitto Denko was GTI's direct marketing and sales force that covers the US. Van Der Tuuk, in turn, sees this takeover as an opportunity for opening up the international market for additional sales of his primary products (vinyl bar coded shelf labels for retailers).

We asked Van Der Tuuk point-blank whether he had any misgivings about selling to a Japanese company -- considering not only the international competition between our countries, but also the fact that this represents the first such Japanese acquisition of a major US company in the auto ID industry. "None at all," he replied. He related that Bear Stearns (the financial advisor he retained to find a buyer) had actually searched out about 300 companies, which they eventually boiled down to a few finalists. He felt Nitto Denko's offer was far and away the best of all.

On a personal basis, Van Der Tuuk sold approximately 57% of his holdings for \$10.4 million, payable on contract. The balance of his GTI stock -- worth almost \$8 million -- remains invested in the holding company which was set up to make the acquisition. At the end of three years -- presumably based on his continuing employment with GTI -- Van Der Tuuk can cash in that reinvestment for a guaranteed \$11 million. (Not bad for a guy who bought the company for \$25,000 just 11 years ago.)

According to Van Der Tuuk, Nitto Denko wants the present GTI management team to continue to run the company. The new owners will follow through by signing two-year contracts with key individuals as soon as possible. Above all, GTI's Chief Executive is convinced that his new bosses have a long-term outlook on financial results. "I was drained by the demands of the financial market to continually produce short-term profit results," Van Der Tuuk explained, "and I'm happy to shuck the quarter-to-quarter performance pressure that characterizes the point of view of US investors."

That's not the first time we've heard that complaint from a CEO of an American public company, many of whom feel that this "What did you accomplish today?" attitude inhibits the growth and prosperity of their businesses in the international market (SCAN Dec 87; Aug 88).

#### Two items need updating....

...from last month's issue -- both involving Imtec. Jim Williams, President of the Bellows Falls, VT manufacturer of automated printing and laminating bar code label devices, called to point out that his company's increase in sales in fiscal year '89 was 50% -- and not 25%, as we reported. He was correct, of course, and was kind enough to attribute the error to our "faulty calculator."

The other Imtec news is that Williams has been selected as the eighth corporate presenter at the Dave Collins/Data Capture Institute's Auto ID Finance Forum to be held October 17 in San Jose in conjunction with SCAN-TECH 89 (SCAN Sept 89).

It has often been a struggle....

....to single out the individual selected to receive the annual Don Percival Award. Sponsored jointly by AIM/US and *SCAN Newsletter*, the Percival Award is presented to a person or organization from the user community who has made outstanding contributions in the field of bar coding and automatic identification. Usually, it takes many weeks of discussion, weighing the merits of suggested candidates, before a decision is reached.

Although there were a number of excellent nominations this year, it was the almost immediate consensus of the selection committee that the outstanding candidate to receive the 1989 Percival Award was Karen Longe.

Since January, 1984, Longe has been the representative of the American Hospital Association to the Health Industry Bar Code Council (a.k.a. Health Industry Business Communications Council), contributing to various published HIBCC standards and guidelines. Her most important efforts have been devoted to education: i.e. teaching the health care providers about bar code scanning; and educating the auto ID industry about the needs of the hospitals.

It has been largely through Longe's efforts that 18 functional application areas have been identified in the hospitals as suitable for bar coding. These include: 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). Longe has argued that all of these applications must be viewed, ultimately, as part of a total system built around patient care.

In her cover letter to the American Hospital Association's Special Survey Report on the Status of Bar Coding in Hospitals, Longe wrote: "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." She went on to report that "the use of bar coding is increasing rapidly, and its future in health care delivery is a certainty."

After retailing and factory data collection, health care probably has the potential to be the largest single industry application for bar coding. Progress has been painfully slow because of the general inertia of the hospitals and the competition from medical services for the limited available capital budgets. In the face of these obstacles, we have found that Karen Longe's contribution toward achieving final acceptance of the technology among the health care providers has been outstanding.

Ms. Longe will formally accept the Percival Award at SCAN-TECH 89, in San Jose, at a special ceremony that will take place at 7:45 a.m., Tuesday, October 17 -- just prior to the keynote speech to be delivered by Louis Rukeyser.

### The industry lost....

....one of its most outspoken and knowledgeable voices last month with the sudden death of Tim Bitler from a massive heart attack. Most recently, Bitler was the editor of *Identification Journal*.

Although *SCAN Newsletter* and Bitler did not always come down on the same side of all issues relating to automatic identification, we often found ourselves worrying about the same things at the same time.

Tim was especially concerned about education. In his editorial in the March, 1989 edition of *IDJ*, titled "Educating the Next Generation," he minced no words: "Where is the pool from which the automatic identification industry can draw the expertise necessary to create the next generation of equipment and methods? And where is the pool of expertise in the user community to generate the demand for new technologies and techniques? If there are no ready answers, it's past time to find them...It is time for a substantial infusion of money and time."

In September, 1988, on the subject of automation in the health industry, Bitler posed the question: "Where have the hospitals been?". He went on to comment: "Hospital screw-ups kill and maim people. No error level is acceptable...behind the blinking lights of new treatment and diagnostic machines lies Nineteenth Century record keeping...The Health Industry Business Communications Council...has simply not been effective in spreading the word...It is now up to manufacturers to get their act together, design appropriate software and hardware and begin a cooperative effort to educate hospital administrators on what bar coding can do."

Tim Bitler spoke his piece and was beholden to no one. Some thought that his attitude was a negative one -- even to the extent that it may have driven off some advertisers of the magazines he edited. We found that what may have appeared to be negative, was, in fact, an expression of his dedication to searching out the truth. He maintained that posture while editor of *ScanJournal* (*AIM's Journal of Technology*), as well as during his participation in AIM's Technology Symbology Committee and the Bar Code Systems Performance Test (whose methodology he ultimately severely criticized).

The AIM organization is helping to administer the "Elizabeth Bitler College Fund" established for Tim's 3-year-old daughter's education. Contributions, made out to the Fund, may be mailed to Bert Moore, AIM/USA, 1326 Freeport Road, Pittsburgh, PA 15238; 412/963-8588.

### The response this year....

....to the third annual Teachers Institute, sponsored by AIM/US and Ohio University and held this past summer, was considered to be the best ever.

According to Chet Benoit (Welch Allyn), one of the seminar leaders, the group of 31 college educators, who came to learn about auto ID, was more diverse, more animated and more responsive than in any of the previous sessions. Hopefully, these professors will integrate their new knowledge into material for courses in medical records, distribution/transportation/logistics, industrial engineering, computer and library sciences and other disciplines.

Ben Nelson (Markem), also one of the Institute's lecturers, took an informal survey of the group, during his presentation, and found that two attendees had hands-on experience with bar codes, four had previously attended seminars on the subject and the rest were total novices. [Ed. Note: We wonder whether these proportions reflect similar levels of exposure in the commercial/industrial world?] Attendees lugged away 60 lbs. of data sheets, suggested course and testing materials, reprints of speakers' papers, magazines, manuals and books -- enough to provide them with the wherewithal to institute their own course of study.

The effectiveness of the Teachers Institute concept was analyzed by Ohio U's Professor James Fales, who sent follow-up questionnaires to all of the 1988 attendees. He found that during this past academic year auto ID subject matter was included in 33 different classes at 19 universities and colleges -- either as part of existing courses or, in three instances, as courses totally dedicated to the subject. There were about 1,100 undergraduate and graduate students exposed to the technology.

One common complaint among the professors surveyed was the lack of funding available to equip auto ID labs for their students. Although Dr. Fales has made no direct requests that we know of, this sounds like an excellent opportunity for auto ID vendors to help with a project that would benefit the entire industry.

Teachers Institute sessions are available on videotapes and slides: AIM, 1326 Freeport Road, Pittsburgh, PA 15238; 412/963-8588.

#### The volatile issue....

....of item price removal has been tackled head-on in Australia -- and from all appearances the forces of reason from down-under have won out.

We have previously reviewed this emotional consumer issue, which involves whether item prices should remain on all merchandise in scanning supermarkets, and the way in which this challenge has been met in the US, UK and Germany (SCAN July 89; Aug 89).

Brian Smith, Executive Director of the Australian Product Number Association (APNA), explains that his country has been dealing with this problem since the early 1980's. Smith adds: "We now seem to have gained some respite by hooking our biggest critic into a definitive survey which proved our point, [and] then enlisting the Trade Practice Commission into a joint effort to produce and formalise a Code of Practice."

The critic referred to by Smith turns out to be Peter Spyker, the Prices Administrator for Victoria State, who has been lobbying for many years against the removal of item-pricing. One Aussie trade publication characterizes Spyker as "an unrelenting, often vicious opponent of scanning." In an attempt to diffuse the issue, the APNA -- along with the Retail Traders Association and the Victorian Government Office of Prices -- commissioned Nielsen Marketing Research to conduct what it calls "the world's first comprehensive field study of scanning accuracy."

The survey was conducted in 78 Melbourne supermarkets, half of which were scanning stores. A total of 390 typical shopping baskets of 50 items each were purchased and price-checked against the shelf labels over a four-week period. The results showed an error rate of 4.9% with manual cash registers, and 3.3% with scanning. (Significantly, in both instances, for every \$100 spent, the consumers were undercharged -- an average of \$.31 in a non-scanning supermarket versus \$.13 in a scanning store.)

Based on this study, industry and government agreed on a very straightforward, three-pronged, Code of Practice, which requires: clearly marked shelf prices; detailed printouts of items purchased; and the item free when any product is scanned at more than the shelf price.

The Code of Practice took effect September 4, 1989 and all 1,400 scanning stores in Australia are expected to enthusiastically embrace the standard. Mr. Spyker's enthusiasm remains, typically, somewhat tempered. He commented, "It's up to the industry and the Committee overseeing this voluntary code to ensure that it does bring about constructive changes and is not just a cosmetic move."

And so it goes!

#### The increase in applications....

...for UPC manufacturers' numbers has prompted the Uniform Code Council to announce that they expect to switch to number system characters (NSC) "6" and "7" sooner than the first quarter of 1990 -- which was the date originally anticipated (SCAN April 89).

The UCC now calculates that it will run out of available numbers using NSC "0" around the end of this year. Vice President Harold Juckett explained that the UCC "is now issuing new numbers at a higher rate than ever." During the first six months of this year the Council registered almost 5,400 companies, compared to about 4,700 during the same period in 1988.

The scanning hardware manufacturers and the grocery retailers, who wanted a year's notice to adjust their equipment and data files, are being encouraged by the UCC to get these revisions completed as quickly as possible to avoid any errors. (There are still some operating systems in use that will not accommodate any changes in the NSC unless these relatively simple updates are made. Most equipment retrofits can be made in the field.)

In its latest bulletin, the UCC again addressed two of the potential problems raised by this change: Zero-suppressed versions, which have always been available for NSC "0" only, will not apply to NSC "6" and "7"; and administrative steps will be taken in an attempt to avoid the duplication of manufacturer numbers issued to companies which distribute cents-off coupons (which are designated as NSC "5").

There has been no recent word from the UCC about any new or expanded educational effort to encourage all retailers to expand their system capabilities so as to uniformly recognize the worldwide EAN codes and symbols. We suggest that the UCC undertake a program to forcefully promote this important issue to the supermarket operators.

### The newest entry....

....into the auto ID user-education business is *Automatic ID News* (and its parent, Edgell Communications), in association with Industrial Data Management (IDM). Starting in September, 1989, and spread over the next 9 months, this joint venture will conduct a series of 17 seminars, at locations across the country, led by IDM's President, Ron Donoghue. The programs will cover three topics: Bar Code in Manufacturing; Bar Codes/EDI; and Bar Code and RF in Warehousing.

One innovative idea introduced for these programs will be the use of corporate sponsors. Doug Edgell, Publisher of *Auto ID News* explained: "In order to hold down the cost to attendees, we introduced the idea of these sponsors. At a cost of \$1,000 per seminar, each sponsor is entitled to a tabletop exhibit and a 10-minute non-commercial time-slot to present information on the specific product group represented by his company." The sponsors' names are also highlighted on the promotional literature which is being mailed to 120,000 seminar prospects.

According to Edgell, 6 corporate sponsors have been signed up: Printronix, AccuSort, Norand, Lowery, Welch Allyn and Symbol Technologies. Each company is obligated for at least one full series of seminars (7 sessions in Fall '89 or 10 sessions in Spring '90).

Edgell Communications, Box 448, Chatham, NJ 07928; 617/749-1003.

### Reflecting the growing importance....

....of EDI, an increasing number of trade and technical publications devoted to this subject are now being offered to the vendor and user communities. The most recent entry to come to our attention is *EDI Forum*, published by EDI Publications Inc.

*EDI Forum* characterizes itself as a "professional journal about EDI issues, history and trends [and]...is the only information source of its kind" for companies as they begin to plan or implement EDI. [Although some of the journal's founders and editors are on the staff at Brigham Young University, we are told there is no corporate connection with the school.]

*EDI Forum* accepts advertising, and, as of now, is published once a year for \$50 a copy. The first issue, which came out in December, 1988, had a print run of 10,000 copies (not all of which were sold). The 1989 issue is now being assembled and is expected to be released in December. There is an open call for the submission of articles and papers. (Although most articles in the first issue were original, some were reprinted from other sources.)

According to publisher Daniel Ferguson, *EDI Forum* will start publishing semi-annually in 1990 and 1991. EDI Publications, Box 710, Oak Park, IL 60303; 312/848-0135.

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