



newsletter

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The management
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related
technologies.

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No one was talking "for the record"....

....last month about the suits and countersuits between Symbol Technologies and Spectra Physics (*SCAN* May 91). Now, however, the curtains have parted a bit and a little light has been shed on the underlying reasons for these litigations, which involve accusations by Spectra of restraint of trade and claims by Symbol of patent infringement.

In a very open and wide-ranging interview, Tom Durant, Spectra's Vice President of Portable Products Business (which includes the hand-held laser scanners under dispute), laid out some of the antagonisms that have been building between the two companies over the past few years.

It started two years ago, Durant told *SCAN*, when Spectra was negotiating to repurchase the hand-held laser scanner license that Spectra had originally obtained from Symbol and subsequently sold to Computer Identics (*SCAN* March 89). "Symbol knew," Durant explained, "that we had the 'right of first refusal' to buy that license back from C/I, and yet they knowingly bid against us when it was put up for sale."

Durant contends that Symbol made the attempt to reclaim the license primarily because of its attractive terms. Unlike Symbol's more recently completed agreements -- which call for as much as a 15% royalty fee -- Durant revealed that the Spectra contract currently calls for a royalty fee of under 5%. Although the amount that Spectra pays Opticon for their laser gun design has not been disclosed, it is believed to be well under 10%. Spectra's total obligation to both companies would thus be less than the standard Symbol royalty amount.

Durant also described a litany of alleged "hostile" acts by Symbol which, he maintains, damaged his company. Some of these acts, he believes, were illegal. For example, he detailed the following circumstances:

- Just prior to SCAN-TECH 90, when Spectra was about to announce their model SP300 laser guns, Durant received information that Symbol was threatening potential customers, according to Durant, with "patent infringement suits if they were to purchase from Spectra." Durant stated: "In one specific instance, we lost a contract for 5,000 to 6,000 units because of this very act by Symbol."



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INCLUDING THE INTERNATIONAL EDITION

- Symbol has made it a condition of their agreements with OEM accounts, according to Durant, that these customers would be billed an additional amount if they were to purchase hand-held laser scanners from any source other than Symbol. This extra charge by Symbol, Durant says, would be intended to reclaim any quantity discount already included in their contracts. [Durant described this action as an illegal use of the "bill-back" stipulation which normally covers dealers who do not meet annual quantity discount requirements.]
- According to Durant, Spectra spent a year and a half researching Symbol's patents and Spectra felt it was "clear to reenter the hand-held laser market." Durant adds: "We also felt we were in a position to invalidate some of those Symbol patents." Durant now believes that Symbol was aware of this possible threat. He states that Symbol requested the US Patent office to reexamine these patents just before Spectra's product announcement in order to avoid any move by Spectra to challenge their validity. "While in reexamination," Durant maintains, "the patents cannot be contested by another company."

As for how Spectra's new laser guns have been received on the market, Durant told *SCAN* that they are currently oversold and back-ordered. "Many customers are switching to our unit," he claimed, "and we will be announcing major sales to retailers in the coming weeks." This assertion was almost immediately supported by a Spectra announcement on May 28, which stated: "After a comprehensive evaluation process, [the Federated Stores department store chain] has contracted with Spectra Physics for delivery of more than 10,000 Model SP300 POS bar code scanners." Delivery is scheduled during the next 12 months.

Federated, and its sister company, Allied Stores, comprise more than 245 stores in 26 states, including such flagship chains as Abraham & Straus, Bloomingdale's, Bon Marche, Burdine's, Lazarus, Rich's, Stern's and Jordan Marsh. Federated/Allied had been a Symbol customer and had previously set up limited scanning operations in many stores. This scanning roll-out, estimated at about \$5 to \$6 million, seems to represent a major coup for Spectra.

Durant feels that Spectra is in a strong market position because they offer their retail customers a full line of CCDs, stationary laser scanners and hand-held laser scanners. "All we are seeking," he says, "is for the customer to have a choice among suppliers and for the opportunity to do business on a fair basis."

And how does Symbol respond to all of this? We ran Durant's statements past Ray Martino, President of Symbol Technologies, for his comments. Here are our questions and his replies to these serious allegations:

1. *Did Symbol ever threaten potential Spectra customers with patent infringement suits?*

"I categorically deny that ever happened. That [unnamed] customer Durant refers to was already a Symbol customer and continued to be a Symbol customer. Similar charges were made by Metrologic and never substantiated."

2. *Has Symbol penalized any of their customers who purchased equipment from another source?*

"Absolutely untrue. If a customer meets his volume commitment to earn a discount, there is never any consideration as to whether purchases are made from any other company."

3. *Why has Symbol sent some of its patents back to the Patent Office for reexamination?*

"As a standard practice, Symbol sends all of those we consider our important patents back to the Patent Office for review about a year after the patent is issued. We do this because it strengthens the patent and it's much cheaper to test the patent this way than to litigate in the courts. Of the 4 patents which are the basis of our suit against Spectra, one was sent back for such a review last year before Spectra sued us.

4. *What caused Symbol to lose a customer as important as Federated Stores?*

"Spectra 'bought' this contract with a very low bid. Since Federated is still in Chapter 11 bankruptcy, all major purchase awards must be made to the lowest bidder under court approval. Many of the stores would have preferred Symbol equipment but they had no choice in the matter."

Martino sees no quick reconciliation between the two companies and believes the litigation will drag on for a long time.

The auto ID industry has settled comfortably...

...into a pattern of two trade shows each year: ID Expo in the Spring and SCAN-TECH in the Fall. Although SCAN-TECH (sponsored and managed by AIM/US) is larger, more elaborate and better known, the recent (May 15-17) ID Expo Conference and Exhibition has established that event as a major showcase.

After several rocky years of moving around the country (from California to Massachusetts) with marginal results, ID Expo's sponsor (*ID Systems Magazine*) and manager (Expocon) decided last year to lock into Chicago -- and they are pleased with the results. This year's event drew about 185 exhibitors and 5,900 seminar and show visitors. Including exhibitor personnel, 7,775 people showed up, a 37% increase over the 5,671 in 1990. If there weren't as many vendor hospitality suites and social happenings as is evident at SCAN-TECH, they did not seem to be missed.

[A number of vendors prefer the Chicago location because it seems to draw the largest attendance. AIM members are ambivalent about whether SCAN-TECH should follow suit. We believe that would be a mistake, particularly in view of currently restricted travel budgets. There is a definite need to move around the country to allow regional distributors and users to get full exposure to auto ID technologies. Current plans call for ID Expo to remain in place for the next two years. But in 1994, SCAN-TECH is scheduled for Chicago and ID Expo will probably relocate to Philadelphia for that year.]

Although ID Expo was geared up to attract all of the auto ID technologies -- bar coding, OCR, RF and voice recognition -- *ID Systems'* publisher Kevin Rushalko emphasized that "bar codes are still the driving force behind the technology."

The most active scuttlebutt we heard was keyed to the Intermec/Litton Industries deal (SCAN May 91). People were asking: Why was the acquisition price so low? Do Litton and Intermec know something about the future growth potential of the industry that we don't know? Will there be other acquisitions of major auto ID companies? (It was only a year ago, with their stock values depressed, that the public companies in this industry could have been bought up for only a fraction of their worth today.)

Among the other major points of discussion on the floor:

- The non-retail market for auto ID products continues to be erratic. Some pundits blame it on the poor economy. Others maintain that industrial applications are more complex than point-of-sale, requiring customized systems and longer lead times to close a purchase contract.
- Thank goodness for the service industries -- particularly transportation. The airlines, truckers and overnight couriers continue to place large orders which comprise a significant portion of new business.
- The health industry is still the bride waiting at the altar. Although a million US nursing stations are waiting for automation, the necessary systems and budget allocations never seem to materialize.
- Finally, there is a tough challenge that everyone agrees will be with us for some time: Where do we find the trained, knowledgeable sales and marketing personnel to carry the message out to the user community? This is not an obscure problem. Manufacturers are complaining that many of their own people, as well as those working for the VARs and resellers, have grown up in the industry selling "boxes," and thus do not understand software or systems. This situation is similar to what the computer industry went through many years ago and it could prove to be a continuing stumbling block in promoting the use of bar coding, particularly in manufacturing applications.

There were a number of other significant products, trends and news items we gleaned while moving around on the exhibit floor, seminar rooms and hotel lobbies. Some are detailed in the articles below -- others will be included in next month's issue.

Prominent among the featured products....

....were the compact, inexpensive, high-speed, high-performance, fixed-mount laser scanners which were being actively promoted by five companies. Joining Microscan -- which pioneered this design and built its company on this type of product -- were Accu-Sort, Barcode Industries, Computer Identics and Lazerdata.

Using laser diodes as their light source, these units (housed in boxes as small as 4" x 3" x 2" and weighing about a pound) offer features that include raster scanning at rates as high as 800 per second, and depths of field up to 30" and more. The scanners typically cost \$2,000-\$3,000 and are designed for applications where high-speed, non-contact scanning is necessary, and mounting space is limited.

Among the examples of the markets targeted for these miniature, high-performance units, Microscan's successful installations include health-related applications (e.g. scanning test tubes in medical laboratory analysis equipment), photo finishing, manufacturing, warehousing and robotics. Microscan has featured these units since the company's inception in 1983 and is the acknowledged leader in this product area. [On April 4, the company announced an OEM agreement with Intermec to provide that company with the scanners and decoders designed to operate in light industrial environments.]

Barcode Industries introduced the Maxiscan, the company's first product entry incorporating lasers. (Up to now, Barcode has specialized in CCDs and a wide assortment of interfaces to computers and POS terminals.) Maxiscan, which raster scans 500 times per second, is priced at \$3,295 with a built-in decoder. According to President Jeremy Metz, about 100 units will be shipped as sales office demo units by mid-June, with production shipments to follow soon after.

Computer Identics' new entry in this product area is the raster scanning Scanstar 15, priced at \$1,895. The smaller, non-rastering, Scanstar 10, introduced earlier this year, costs \$1,195. Both are accompanied by the separate Scanstar 240 decoder at \$995.

Accu-Sort's Model 30 scans at rates up to 800 per second with read distances in excess of 40 inches. This unit -- at \$995 plus \$1,000 for the decoder -- is also compatible with Accu-Sort's DRX (data reconstruction) decoder technology.

Lazerdata's small scanner, the LD 9000 -- priced at \$2,995, including built-in decoder -- is notable for its unique, patented, electronic cooling system which, according to VP Marketing, Dick Wheeler, significantly extends the operating life of the laser diode.

Barcode Industries (Beltsville, MD - 301/498-5400); Accu-Sort (Telford, PA - 800/227-2633); Computer Identics (Canton, MA - 617/821-0830); Lazerdata (Orlando, FL - 800/843-2700); Microscan (Tukwila, WA - 206/575-3060).

An example of a new product....

...that is taking advantage of the miniature, high-performance scanners, was shown by first-time exhibitor, Computata USA (Miami, FL) which introduced their Multiscan document scanner to the US market. The device is designed to read lottery tickets, utility bills, cents-off coupons, bank checks and currency at a speed of 300 to 400 documents per minute.

The Multiscan, now assembled by Computata's parent company in Argentina, incorporates a Microscan miniature scanner with paper handling parts made by Brandt (Bensalem, PA), a leading manufacturer of automated system components of this type. Computata expects to transfer assembly to its US operations later this year.

There are two models currently available. The semi-automatic sells for \$12,500 and the fully automatic for \$30,800. According to the company, 50 of these patented devices have been sold and installed in South America. Marketing in the US will be through resellers.

Computata USA, 1221 Brickell Avenue, Miami, FL 33131; 305/888-1236.

At the other end of the spectrum...

...are the super-performance, monster scanners, based on helium-neon lasers and designed for very high speed production and sortation lines. These units are typically omni-directional, can autodiscriminate among as many as 8 different symbologies, and create complex scan patterns to read severely truncated and poorly printed bar codes (with aspect ratios as low as .25).

The three companies offering this type of product -- Accu-Sort, BRT and Lazerdata -- were involved in designing similar units to meet the US Postal Service requirements (*SCAN* April 91). They all recognized that there is a market for such versatile devices which can scan packages at successful read rates of over 99.5% at conveyor speeds of 500 feet per minute. Typically, these units feature large scan zones and have the ability to read high-density codes (X = .007") with just a few inches of spacing between packages.

Each company has taken a different approach to the design requirements of these complex devices. Accu-Sort -- which has undergone extensive field tests with the Post Office -- uses three scanning heads. Lazerdata's "Hawkeye" unit includes 9 lasers and demonstrates an overhead mount that runs as large as 6' x 2' x 2.5'. BRT, which introduced their Eagle I at ID Expo, uses only one laser scanner and a proprietary technique of processing partial scans of the bar code to recreate the entire symbol.

[This piecing together of partial scans was pioneered by Accu-Sort more than three years ago with their DRX, which constructs the full symbol from data segments derived from multiple scanners. Lazerdata boasts that its nine scanners create a multiple scan pattern that does not require code reconstruction, but reads each code in real time -- or alternatively, can decode eight bar codes simultaneously. At ID Expo, Lazerdata constructed what looked like a rocket launcher that went off every few seconds accompanied by bells, whistles and horns when its Hawkeye successfully scanned a Frisbee thrown in its direction (you had to be there to appreciate it).

Prices for these super scanners run as high as \$30,000 per system. BRT is aggressively pricing the Eagle I system at \$20,000 (not including automatic focus, mounting hardware and presence detection devices).

Accu-Sort (Telford, PA - 800/227-2633); BRT (Fountainville, PA - 215/249-3300); Lazerdata (Orlando, FL - 800/843-2700).

The possibility of reconciling...

...UPC/EAN Application Identifiers (AI) with FACT Data Identifiers (DI) into a compatible, unified system has been a topic of concern this past year. In our January 1991 issue, for instance, we wrote: "We believe that it is not too late...to arrive at a common ground that will avoid the confusion that seems to lie ahead."

We were wrong -- it was too late! On February 27, 1991, the Uniform Code Council (Dayton, OH) and the International Article Numbering Association/EAN (Brussels) announced the adoption of 36 Application Identifiers using the Code 128 symbology. Data Identifiers remain as a totally separate system

administered by the Federation of Automated Coding Technologies (FACT).

AI's and DI's are prefix codes designed to accomplish the same purpose: they are intended to unambiguously identify the numbers that follow, in environments where more than one code or symbol may be encountered. The Data Identifier concept originated in the early 1980's with the Automotive Industry Action Group, when that organization developed multi-coded shipping labels which included the product, vendor, quantity and other information which had to be separately identified in the data base. A few years later, the project's sponsorship was assumed by FACT with participation by a wide spectrum of industries and applications, mostly oriented toward non-retail trades.

Application Identifiers, on the other hand, were developed by the UPC/EAN organizations, which recognized the need to distinguish among the multiple packets of information appearing on consumer packages passing through discrete scanning stations. Since the UPC/EAN organizations have always been philosophically committed to tighter-structured, all-numeric codes, they have resisted the alpha-numeric, loosely formatted Data Identifiers.

Since we will have to live with these different coding systems, it might be worthwhile to examine some of the strengths, weaknesses, similarities and differences between the Application Identifiers and Data Identifiers:

1. Structure: The AI may be two, three or four digits, all numeric; for each AI there is a prescribed (or maximum) number of characters assigned; the AI is always in Code 128/Function One. The FACT DI consists of one alpha character, preceded by up to three numerics; there are few parameters for data length or structure to follow the DI; it can be represented in any alpha-numeric bar code symbology.
2. Adaptability: Both methods are intended to be used in open system environments; i.e. they can travel across industry and geographic borders. FACT's approach is to go beyond a common communication system and attempt to provide as broad a dictionary as possible to cover all identifiers. (There are approximately 150 DIs assigned and the list is growing.) Thus, there are DIs which are unique to a particular industry, and there are those which can even be used within a company (e.g. employee number, work order number).
3. Application: Where the user environment involves a predominance of UPC/EAN product coding, the AI/Code 128 approach is logical because it will allow the data to cross any industry and national boundary. This wide acceptance is attributable to the single symbology and the uniform parameters set by the print and scanning specifications. Where there is no history of UPC/EAN product coding (e.g. on the components in the automotive industry), FACT DIs will be used and will find new applications. Where there is a crossover (always the problem area), that industry may be faced with a dual system.
4. Harmonization: Proponents of the pragmatic view maintain that FACT DIs and UCC/EAN AIs are two separate *de facto* standards based on the common ground that both interface with data held on computers. Therefore, supporters of this approach suggest, if there could be an agreement on the precise definitions for each Identifier, then the two systems could be "harmonious."

COMMENT

The bottom line is that a harmonization effort must be superimposed to reconcile two systems which should have been one. The incompatibility of the two systems will adversely affect label printers, scanner/decoders and computer data bases; and any users who serve different markets will have to be very careful about their AIs and DIs.

We are aware that there is no going back; the DIs and AIs will not be merged. We hope the various groups involved will undertake a constructive dialogue to make life easier for us mortals. More importantly, we hope that the lesson learned is that harmonization should be undertaken to resolve differences before they are set in concrete.

One of the best known figures....

....in the auto ID industry has made a dramatic change. Doug Edgell has resigned his position as publisher of *Automatic ID News*.

The monthly trade journal was started in July 1985 by Doug and Gabrielle Edgell, who also publish other trade magazines under the Edgell Enterprises banner. In June 1986, when they had difficulty continuing *Auto ID News* on their own, they sold it to Harcourt Brace Jovanovich. Doug stayed on as publisher with a year-to-year contract with HBJ and helped to build *Auto ID News* into a financial success.

Three years ago, the Edgells founded *Retail Information Systems Magazine* and last month they introduced their new *Data Interchange*. "I'm too much of an entrepreneur to think of continuing to work for someone else," Edgell told *SCAN*, "and I would rather pursue building my own company full-time." Edgell's replacement at *Auto ID News* has not yet been announced.

As part of his severance agreement with HBJ, Edgell has agreed to stay out of the auto ID business for one year (with the exception of *RIS* and *Data Interchange*).

Anyone taking any bets as to how soon after May 1, 1992 we'll see Doug back in this industry?

[Ed. Note: Last month, when discussing the recently arrived *Data Interchange* and *EDI World* magazines, both of which cover EDI, we stated: "It's going to be tough for such publications to broaden their EDI qualified reader base to meaningful numbers" (*SCAN* May 91).

Richard D'Alessandro, publisher of *EDI World*, cornered us on the floor of ID Expo to set the record straight. "We now have 42,000 qualified readers," he told us, in no uncertain terms, "and it's all we can do to keep up with the bushels of new requests that arrive at our office each day." That's great, and we hope the advertisers take note.]

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