



newsletter

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

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The first round ended....

....on Sunday, May 31, 1987 when the Board of Directors of Spectra-Physics (S-P) emphatically rejected the tender offer made by Ciba-Geigy (C-G) to buy all of the S-P common stock for \$32 per share. The events leading up to and surrounding that offer, and the decision to reject it as "financially inadequate and unfair," are quite interesting and also have had significant impact on the bar code scanning industry beyond what was reported in the financial press.

- First, the cast of characters: Spectra-Physics is the major US manufacturer of lasers for use in industry. Its Retail Division has been the largest supplier of slot scanners (using he-ne lasers) since UPC was first introduced in 1973. Ciba-Geigy is the Swiss-based chemical-pharmaceutical giant which also markets medical devices, including some based on laser technology. C-G and S-P have been doing business together for a number of years.
- In December, 1985, C-G invested \$30 million in S-P in exchange for 18.8% of the stock. As part of this deal, the two companies agreed to work together on special R&D projects and new product development. C-G promised not to use their large equity position as a launching pad to take over complete ownership of S-P -- unless a third party made a move to buy control.
- Enter Reliance Financial Services, the aggressive investment firm headed by Saul Steinberg. In January, 1987, Reliance/Steinberg increased its holdings in S-P to 12.8% and was allocated one seat on the Board. C-G, contending that Reliance was positioning itself to buy the entire company, has used this move as their excuse for bidding for all of the outstanding shares of S-P. When we reported the Reliance/Steinberg acquisition of additional S-P shares (SCAN March 87), we pointed out that this investment group had also purchased a large block of shares in Symbol Technologies (bringing their total holdings to over 26% of that company) and maintained a substantial stake in Recognition Equipment (REI). We wondered at the time whether something was brewing among these three auto ID companies, although the only responses we received from the principals were denials and "no comments."
- We have now learned that both Symbol Tech and REI had approached Spectra within the past 6 to 9 months about the possibility of buying their Retail Division, and that both offers had been spurned.

And now to tie it all together: If Ciba-Geigy succeeds in purchasing Spectra-Physics, it would probably have little interest in the Retail Division. Although the pharmaceutical giant doesn't need the cash, it might sell off that subsidiary to defray some of the cost of buying the S-P stock. In that event, who would be a more logical buyer of the Retail Division than Symbol Technologies? (The S-P slot scanners would dovetail nicely with Symbol's hand-held laser guns.) So while the price of Spectra-Physics stock jumped from 23 to 36 in a few days in late May, Symbol Technologies rose from 25 to 30 during the same period.

[Editor's Note: This increase in Symbol's stock price may also have been fueled by negotiations which were underway for an \$11 million order for laser guns for Mervyn's Department Stores, a 200-store chain based in Hayward, CA. This order actually came through on June 4, and turns out to be one of Symbol's largest ever. Mervyn's is a unit of the Dayton-Hudson retailing giant.]

We expect the Spectra-Physics/Ciba-Geigy story will involve many more rounds -- and side-shows -- before it is over.

There are two things....

....that journalists quickly learn about rumors: (1) They must all be checked out carefully, and (2) even when they are incorrect, or cannot be verified, there is often some nugget of truth that triggered the report in the first place.

Take the Instaread story which originated in the Far East a few months ago (SCAN April 87). We reported that the Instaread Division of Rexnord was on the block and that Rexnord was talking to interested buyers. This was flatly denied by Jack Cochran, Instaread's VP Sales and Marketing. He told us emphatically that the company was doing well and that there was no substance to the rumor.

Well maybe that response was true in March, and maybe it wasn't. But, as of May, we have reliably learned that Instaread is definitely up for sale.

Several companies are actively investigating the acquisition -- while an Instaread management group is attempting to raise enough capital to structure a leveraged buyout (LBO). The key executives of this group are Jack Cochran, who would be the Chairman if the LBO comes off; and Mike Reid (currently VP Operations), who would be the new President.

Although LBO's are the rage these days, we haven't seen any such deals in the bar code business as yet. It will be interesting to see how the bankers and/or venture capitalists respond -- and to what extent their replies are affected by the general outlook for the auto ID industry.

And talking about LBO's....

When we last reported....

....on the recent developments at RJS Enterprises (SCAN April 1987), we noted that Illinois Tool Works (ITW) had bought Signode, and that soon afterwards, ITW had accelerated its option to complete the acquisition of RJS. Signode had initiated the RJS purchase three years earlier. What we didn't mention

was that ITW was apparently unhappy with the fairly steep price paid for RJS (reportedly in excess of \$12 million), particularly in view of the relatively poor recent performance of its acquired property.

Now, two months after completion of the deal, rumors have surfaced that ITW would welcome the opportunity to sell its RJS operation. So far, the only buyer we have heard about is an inside management group attempting to structure a leveraged buyout. This management group includes President Tee Migliori, Bill McCubbins (Manager VAR/OEM Program), Jim Morgan (VP Manufacturing), and Dick Mahmarian (Senior VP Sales and Marketing) -- hereafter called the Four M's.

The Four M group and ITW have come to a preliminary agreement on terms. Now the task is to raise the debt and/or equity financing required to do the deal. That may take some doing since the only security that the financiers can fall back on, in an LBO of this type, is the value of the company combined with the faith that the money-lenders have in the ability of the management group to make it a successful venture. (None of the Four M's were part of the original, successful RJS Enterprises that Signode contracted to buy in 1984.)

We had decided....

....to let the dust settle a bit at Computer Identics (C/I) before checking for new developments. After a shake-up led by the major stockholders (SCAN March 87), we felt that the new President, Frank Wezniak, needed a little time to look around and settle in.

Wezniak took office following the resignation of David Collins as President/CEO/Chairman. In other management changes, the contract of Bob Shallow, VP Sales and Marketing, was not picked up when it expired in May, 1987. In his place, the new Director of Sales is Bill Miranda, promoted from West Coast Regional Sales Manager; and the new Marketing Director is Whit Ford, from the home office Marketing Department.

We spoke with Wezniak following a series of planning meetings held by his new management group. In a major policy shift, the company has re-focused its marketing strategy away from a systems approach. In particular, C/I will not be offering hardware and software services to create customized systems. Instead, it will be emphasizing its broad line of standard products, which can also be tied together as off-the-shelf systems.

In a related move, a new company will be created called Computer Identics Systems Corp. to be headed by Ted Williams, formerly C/I's VP Systems. This new organization will act as an in-house VAR to put together custom systems based on Computer Identics hardware. It is not yet clear how the formation of this separate division will conform with the new no-custom-system philosophy of the company. The details are still being worked out.

Wezniak stressed that "new orders are coming in at double the rate of a year ago." Although he did not make any specific predictions as to 1987 sales volume or profitability, he did say that "if orders stay strong, we will have some profitable quarters this year." He cautiously added that the "entire 12 month period may not wind up in the black." For the first quarter of 1987 (ended 3/31), total sales were \$3.0 million (compared to \$2.0 million last year). The company posted a loss of \$665,000 for this same period (compared to a loss of \$550,000 last year). Wezniak points out that there were increases to the

first quarter 1987 losses due to some financial "housecleaning" and the establishment of reserves against future losses.

It is often pointed out....

....that one of the key factors prompting the introduction of bar code scanning in the health care industry was the need for cost savings. This motivation was accelerated by other circumstances including: The US Government's limitations on cost allowances under the Medicare program; the pressures from the large medical insurance carriers; and the rapidly rising costs at all levels of production, distribution and delivery of health care.

After spending a few days at the International Conference and Exhibition on Health Industry Bar Coding in Atlanta in early May, we have concluded that there are three other and even more compelling reasons for moving this technology into hospitals: They are "Accuracy! Accuracy! Accuracy!." Dramatic improvements in patient care and in materials and records management have been readily demonstrated when bar coding systems are installed at all levels of manufacturing and distribution -- from the production/packaging line all the way to the patient. And since it can be shown that these improvements are realized in addition to significant cost savings, the need would seem to be irresistible.

One of the worst kept secrets among hospital pharmacists and medical personnel is that anywhere from 5% to 25% of all drugs are administered to patients in error -- wrong patient, wrong drug, wrong dosage, wrong time. From the production line to the bedside, the overriding concern of health providers is to try to get the correct product, in the proper package, to the appropriate patient at the right time.

Why, then, does the acceptance of the Health Industry Bar Code seem so slow and labored? The Atlanta conference and exhibition were heavily promoted for many months, yet only about 300 attendees showed up from over 7,000 US hospitals. Although many of the 60 exhibitors dutifully commented to us on the high quality of the visitors, they were clearly disappointed by the quantity.

We do not know why bar coding has not penetrated more deeply into the hospital environment. Most large pharmaceutical manufacturers have been using bar codes on production lines for years and almost of their over-the-counter products have been UPC'd by now. There is, apparently, a need for more education for the hospitals' management and operations personnel. Maybe the vendors need to address the lack of off-the-shelf drop-in systems for the health care facilities. Whatever the reason, this is still an enormous market waiting to happen.

To paraphrase the promotion line used at the HIBCC Conference -- parentheses ours: "The Future is (not quite) Now."

Another not very well-kept secret....

....this past year has been that the Health Industry Bar Code Council has not been too pleased with the progress of the HIBCC program. Part of their unhappiness has been focused on the performance of the management company that was handling the Council's affairs.

To remedy this, the HIBCC voted last month to replace Henry Givray of Smith Bucklin Associates and to establish an in-house administrative agency. The Council has retained Robert Hankin as its full-time Executive Director. He will be based at the HIBCC offices in Chicago.

Definite signs are emerging...

...that "very high density" (VHD) bar code symbols are moving onto the horizon. Until recently, high density Code 39, for example, meant 9.4 cpi (characters per inch). This was based on a narrowest bar width of 7.5 mils ($X = .0075$ "), which was derived from the early specifications published by Intermecc.

For the applications contemplated during the last 10 years, this code density limitation was not very restricting. It was inevitable, however, that symbol density would increase (i.e. more characters per inch) as the technology advanced and new applications evolved. The need for more condensed bar codes is now becoming particularly evident in industrial applications where symbols are being affixed to electronic components, printed circuit boards and other items which have limited space available. In general, these products would be scanned in a "closed system" -- i.e. a controlled environment where all components and scanning stations were under system control.

For unit-dose packaging in the health industry, VHD symbols have now become a very hot topic. There is limited real estate for printing the symbol on a medical product such as a sealed envelope containing two pills, or a vial for a single injectable. Thus there was interest in the very high density printers and scanners featured at the HIBCC Conference by Intermecc and Symbol Technologies. Intermecc's Model 8404D impact printer, for one, is rated to print at 14.7 cpi with a 4.4 mil narrow bar. The potential offered by printing techniques such as ion deposition and ink jet may be significant for printing VHD bar codes.

The ability to successfully scan even 3 mil bars or less is not considered impractical. In general, the he-ne laser scanners would slow down a bit (32 scans per seconds for the current Symbol Technologies model), but this would be transparent to the end user, and would not affect performance. It should be noted that very high density scanners tend to have a smaller depth of field, and this may limit some of the applications.

Getting back to unit dose packaging, the problem that exists is to achieve high-speed in-line printing right at the packaging production line. So far, no one seems to have come up with a workable solution to that application. Some sample packages were displayed at one of the HIBCC seminars, but the print quality (even at 9.4 cpi) had to be considered "marginal" at best.

The unofficial documents....

...which are floating around in a few very exclusive hands, include selected preliminary results from the AIM Technical Symbology Committee Study on the testing of symbol reliability and auto discrimination (SCAN July 86, Dec 85).

This test, commissioned by AIM/US in late 1985, was conducted by the faculty and staff at the State University of New York at Stony Brook (Long Island) under the supervision of the Technical Symbology Committee. When the

study was originally announced, there were a number of challenges to the validity of the methodology that was to be used. These questions were primarily based on the large number of variables involved, including 7 symbologies, 10 densities, 8 reader/scanners, and 12 printing techniques. The original plan was to perform 2 million scans and, as we reported when the study started: "The matrix of variables is so large and the number of scans so relatively small -- that the results may not be statistically significant."

The study was originally scheduled to be completed by October, 1986 (possibly in time for SCAN-TECH 86), but there were delays and problems: equipment did not work as planned; operators needed further training; scanning methodology had to be adjusted. The first draft of the results is to be presented at the AIM membership meeting on June 5. At that time, preliminary copies are to be distributed (to AIM members only) for review and comment. The final report is scheduled to be distributed to the general public at SCAN-TECH 87 in October in Kansas City.

We have not yet seen the interim report, but we did have a chance to glance at the unofficial abstract which provided selected highlights. From this document, we learned that the study will include two important conclusions: 1. There is no significant difference in the measured misread error rate among any of the symbologies tested (with the possible exception of UPC Version E, and even that may have been due to faulty equipment); 2. There is no significant increase in the misread error rate when autodiscrimination is attempted among 2 or 3 symbologies (and again there may be one exception, this time involving Codabar and UPC).

Since even those two conclusions may prove to be very controversial, the full report is certain to draw a great deal of attention.

Some concern has been expressed....

....among members of AIM/Europe that their group could be severely weakened if another major nation (in addition to AIM/UK and AIM/France) sets up its own independent Automatic Identification Manufacturers organization. It seems obvious that these separate national organizations have sapped the strength and effectiveness of AIM/Europe, which is the AIM affiliate designated as the regional umbrella group. For example, both AIM/UK and AIM/France have scheduled their separate trade shows in June this year, competing with AIM/Europe which will have its SCAN TECH exposition just a few months later.

Given this as background, an important meeting took place in Stuttgart on May 11 when 25 representatives from German automatic identification companies convened to discuss the possibility of forming AIM/Germany. It soon became apparent that most of the attendees saw the advantages of maintaining a strong AIM/Europe, rather than creating independent national groups which would weaken the European organization. Virtually all of the companies voted for retaining their membership in AIM/Europe and against establishing a separate German affiliate. They also decided that SCAN-TECH/Europe should be the primary annual convention for German members, even if it was held in a location outside their country. An advisory committee was set up to deal with national issues and to handle inquiries from the German marketplace.

The decisions of the German group were certainly influenced by the poor attendance at the mid-May Ident 87. This was the first attempt at an auto ID trade show in Germany and it was billed as an international event with up to

10,000 visitors expected. It turned out to be a local show with most of the attending delegates coming from the immediate region.

COMMENT

We support a strong AIM/Europe with the resources to consolidate and vitalize the industry with strategic educational and trade efforts, as well as with the necessary technical standards. The smaller national groups tend to confine their activities to the immediate problems of stimulating business for the short term. A well-organized and adequately funded AIM/Europe could be a strong adjunct to AIM/US and AIM/Pacific, and would provide the needed synergism to meet the important challenges of the future. If everyone submerged their nationalistic tendencies and got behind AIM/Europe and SCAN-TECH/Europe, and then devoted their individual energies to educating their local constituencies to the advantages of the technology, everyone would benefit. We commend the decision made by the German auto ID industry.

After crying wolf....

....that Telxon's fourth quarter would not be as strong as some analysts had predicted, President Ray Meyo released his year-end (3/31/87) financials which needed no excuses. The company broke the \$100 million sales barrier it was aiming for:

<u>TELXON</u>	<u>3 Months ended 3/31</u>		<u>12 Months ended 3/31</u>	
	<u>1987</u>	<u>1986</u>	<u>1987</u>	<u>1986</u>
Revenues (\$000)	\$28,505	\$24,104	\$100,819	\$82,095
Net Income (\$000)	3,787	3,001	12,730	8,109
Net Income/Share	.28	.22	.94	.64

Meyo estimates that Telxon is now in control of 25% of the worldwide market for portable transaction computers (PTC) in an industry where he is competing with 50 to 100 other companies. He defines the PTC industry as "a subset of the computer industry and the bar code industry, where the two intersect." "The PTC marketplace," he explains, "is made up of many niche marketplaces, defined by specific applications of many integrated technologies. The overall market for PTC system technology was approximately \$320 million for the fiscal year ended March 31, 1986."

In a very dramatic turnaround....

....after last year's lackluster performance, Intermec has ended its 1987 fiscal year with significant increases in sales and earnings.

<u>INTERMEC</u>	<u>3 Months ended 3/31</u>		<u>12 Months ended 3/31</u>	
	<u>1987</u>	<u>1986</u>	<u>1987</u>	<u>1986</u>
Revenues (\$000)	\$16,960	\$11,241	\$62,957	\$47,034
Net Income (\$000)	1,104	381	3,812	1,741
Net Income/Share	.19	.07	.65	.30

This earnings recovery is even more noteworthy considering that the final results in fiscal year 1986 included \$159,000 in operating income.

After having to defend his company's poor performance last year, Chairman David Allais can be excused when he exults: "Intermec has significantly improved its financial results while building the largest, most broadly-based company in the industry. The company's new management team is strongly motivated to capture a large share of the dynamic and rapidly growing bar code data collection business. Our fiscal 1988 goals are to increase both sales and earnings by amounts in excess of 25%."

President John Paxton, who has headed up the new management team that was put in place last year, emphasized that future plans included bidding on selected Department of Defense procurements as a prime contractor. In fiscal 1988, the company expects to ship about \$3 million of their \$5 million government subcontract with Unisys. Intermec is now preparing to bid directly on the upcoming Army T (for Tactical) contract. So far, other companies in the bar code industry have not been successful in bidding directly for these large government contracts, but Intermec plans to be selective and believes it has the bidding procedures under control.

A new and innovative....

.... retail automation product was introduced and demonstrated at the Food Marketing Institute (FMI) show in Chicago last month. It is the self-service scanning check-out system (SCAN Oct 86) by CheckRobot.

We visited the Kroger store in Decatur, GA for a full field demonstration and came away impressed with the security features of the system. The customer in the self-service lane removes the products from the wagon, scans each one, and places it on a moving belt. The belt will reverse itself and return any item to the shopper that is not scanned and recorded properly. If a different product is placed on the belt than the one scanned, it will also be returned.

We tried the system and we could not scan a 39-cent can of peas and place a \$3.39 can of coffee on the belt. A series of sensors checks the product and, in a manner that is still a mystery to us, rejects the incorrect item.

This gimmickry does not come cheap. It costs about \$20,000 per lane to install this system, which does not include the cash registers or host computers. Why spend so much? In addition to significant labor savings, the CheckRobot people say that more people will be attracted to a store which has shorter lines and which gets the customers out the door more quickly.

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