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Volume XVIII Number 1

September 1994

The sudden departure....

....of Mike Weaver as Chairman/CEO of Hand Held Products (HHP) three months ago signalled a major change in the character of the Charlotte NC-based manufacturer of portable data collection devices (*SCAN* June 94). Weaver, a founder of HHP, was its acknowledged mentor and driving force. (In his new position, he will function in what has been vaguely defined as a "consulting capacity.")

The position of Chairman went to Miles Smith, Jr., one of HHP's original investors. Ed Sternagle, who had been president, assumed the additional responsibilities of CEO. Sternagle came to the company in May 1991 when Weaver was seeking a professional manager to help run operations.

Sternagle spoke to *SCAN* in late August about the reasons for these corporate changes. "Weaver is a brilliant technologist," Sternagle explained, "but operating the day-to-day business was just not his bag. He is an entrepreneur, and the personality of a company always takes on that of its CEO. Our goal is to change our image and culture. I am more people-oriented. We are now transitioning from a technology-based company to one that is more customer-oriented -- although we are not divorcing ourselves from the technology."

Sternagle recently revamped the company's organizational structure. Personnel were cut from 100 employees to 75; a number of major management changes also were made, including the replacement of both the VP Finance and the VP Operations. In a particularly significant move, the sales and marketing functions were merged. According to Sternagle, Jeff Osborne, who had been the VP Marketing, "elected to leave the company" in early August. Osborne had been with HHP for eight years and was quite well-known in the industry as the most prominent spokesman for the company. Bob Berlin has been appointed as VP Sales and Marketing. (Osborne has not returned our phone calls.)

When questioned about the company's fiscal performance, Sternagle insisted that privately-held HHP "does not reveal or share any financial information." On the subject of corporate operations, however, he was more forthcoming: "We do no manufacturing in-house," he disclosed, "other than some final assembly. We are going more and more to outside sources even for our marketing and engineering and we do business with firms from Charlotte to Singapore. My philosophy is to have a senior, core nucleus of talent here to manage and control our own destiny and to outsource the rest to the best available companies."



0273-3080(199409)18:1;1-1

INCLUDING THE INTERNATIONAL EDITION

Sternagle promised that there would soon be some "hot-breaking news" about HHP's "renewed relationship" with Federal Express. (HHP had lost Fedex as its major account a few years ago. Recently, HHP settled its 1992 lawsuit against the overnight carrier which involved Fedex's plans to make its own scanners.) A few days later, on August 29, HHP announced that Federal Express had purchased 300 of HHP's new Micro-Wand 32ES portable bar code scanner for an "extensive package tracking field test."

This time around....

....it looks as if Metrologic Instruments (Blackwood, NJ) will actually complete its "initial public offering" (IPO) and will become a publicly-held company within a few months.

[Harry Knowles, Chairman/President/CEO -- who founded the company in 1968 -- went down the IPO road once before, in 1987, only to veer off at the last minute when he decided the timing wasn't right (SCAN July 87, Sept 87). Metrologic designs, manufactures and markets hand-held, fixed projection, in-counter and industrial bar code scanners.]

Metrologic has had a checkered history of successes and failures (SCAN June 94). In 1991, the company was the loser in a patent infringement suit brought against it by Symbol Technologies. As a result, Metrologic was forced to withdraw its major line of hand-held laser scanners which were in violation of Symbol's patents on trigger-activated laser guns. Sales in 1991 were down more than 25% (to \$12.3 million) with a significant loss of \$890,000.

[Note: The results of the 1991 lawsuit were settled late last year. The agreement requires Metrologic to pay Symbol a royalty based on gross sales for a 12-year period. The total of these payments, through the year 2004, will fall between a minimum of \$4.45 million and a maximum of \$7.5 million -- depending on sales. Still pending is a separate patent lawsuit brought against Metrologic by PSC in July 1992 (SCAN July 92).]

Metrologic went back to the drawing board in 1991 and developed a new series of products, including a triggerless laser gun that avoided Symbol's patents. Vigorous steps were also taken to strengthen and enlarge its sales and marketing organization, both in the US and abroad.

From the 1991 depressed revenue base, sales increased dramatically to \$17.0 million in 1992 and \$23.6 million in 1993. For the first six months of this year, revenues were \$16.1 million. Operating income (before taxes) was a healthy \$2.8 million in 1993 (11.8% of sales); \$2.4 million for the first half of this year (14.6%). Currently, sales outside the US -- mostly in Europe -- account for 60% of the company's revenues.

The current Metrologic IPO is based on the issuance of 1.5 million shares of corporate stock expected to sell at between \$8.00 and \$10.00. (The principal underwriter is Janney Montgomery Scott Inc., Philadelphia, PA.) From the proceeds, the company will pay off its bank loans of \$2.2 million, plus notes of \$2.2 million from Knowles (lent to the corporation during its difficult times). After fulfilling other corporate obligations and the costs of the underwriting, the company should net approximately \$6 million for working capital. After the

IPO, Knowles will retain 66% of the voting stock, the public will own 30%, and the balance will be held by other minority stockholders.

Comment

Independent entrepreneurs, who have nurtured their companies from infancy, often find it difficult to share ownership with strangers. However, raising a sizable amount of capital (that does not have to be repaid) and realizing substantial cash and fungible assets from the company, are opportunities that these business pioneers often find irresistible.

One of the most promising....

....activities currently under way at AIM/US is the "Health Care Initiative." This project will attract special interest because it represents the type of constructive services that a progressive trade association -- such as the rejuvenated AIM/US -- can provide to its members (SCAN Aug 94).

Karen Longe (Zebra Technologies) -- who heads the AIM Task Force on the Health Care Initiative -- recently told SCAN that the program is still in its early planning stages. "We awarded a [six-figure] contract to a New Jersey research firm last month," she said, "and we are just now developing our objectives, methodology and timetable. During the first phase, we will be mailing a detailed questionnaire to hospitals in New Jersey. We selected one state as a control area and we hope to learn enough from this sample to extrapolate the results to the entire country."

According to Longe, the hospital questionnaires will serve two purposes. "Not only will we derive important information from the answers of the hospital personnel," she explained, "but in completing these questionnaires, we will be educating these health providers with information about automatic data capture and its applications in their facilities."

There has not been any survey of this magnitude conducted among hospitals since the one completed in 1987 by the American Hospital Association (under the direction of the same Karen Longe who was then an administrator for that organization). "We must have updated information to understand the hospitals' needs," Longe continued. "Seven years ago we talked about scanning equipment installed at the patient's bedside. Today, we have portable data terminals with much more flexibility and capability. One of the questions we will be asking is whether the requirements of the hospitals can be met with adaptations of the hardware, software and systems designed for the industrial environment -- or do we have to develop a complete new set of tools?"

Longe expects the questionnaire to be mailed in late September. Meanwhile, she will be discussing this project with the Health Industry Business Communications Council (HIBCC) and other trade organizations hoping to form alliances to assist in the program and to gather information from as many sources as possible. "We have not even decided how or when we will disseminate the results of the study," she concluded. "Questions remain about whether it will be made available to the entire industry or sold as a participating study to AIM members."

Obviously, this research effort is not going to bear fruit until next year and

beyond, but it represents a significant organized effort to open up the health industry market to automatic data capture technology. Its results will also point the way to similar AIM/US studies for other industries and applications.

One thorny issue....

....remained unresolved, last year, following settlement of the dispute between AIM/US and AIM/Europe over the reorganization of AIM International (AIMI): Did Advanstar have clear title to the SCAN-TECH name in Europe? (SCAN Nov 93)

[On March 2, 1993, AIM/Europe sold its SCAN-TECH/Europe convention to Advanstar Exhibitions; AIM/Europe was then still in the midst of its strained relations with AIM/US. Part of the dispute between the two AIM affiliate organizations centered around the rights to the "AIM" and "SCAN-TECH" names and marks. AIM/US claimed exclusive worldwide title to these names; AIM/Europe maintained that no such rights existed in Europe.

Advanstar officials were aware of this dispute, but decided, after researching the matter, that they were purchasing clear title to use the SCAN-TECH name and mark. Advanstar then proceeded to organize and sponsor SCANTECH Expo Europe 93 in Köln, Germany last year; and has scheduled SCANTECH Expo Europe 94 for Paris this November 15-17. AIM/US responded by placing Advanstar on notice that it did not accept the transfer of the name and might pursue legal redress.

When AIMI was formally established last October -- with the blessings of AIM/US, AIM/Europe and the other affiliates (SCAN Nov 93) -- AIM/US transferred all of its rights to the AIM and SCAN-TECH names and marks to the new international organization. In effect, this hot potato issue was dumped in the lap of AIMI's Executive Director Brian Wynne.]

In August, following intense -- but amicable -- negotiations, the issue was resolved. AIMI sold to Advanstar (for \$75,000) the exclusive right to use the SCAN-TECH name and mark -- in Europe only. As part of the deal, AIMI will join AIM/Europe as a sponsor to support Advanstar's European SCAN-TECH shows.

[Note: Advanstar also owns and manages ICAP Expo, which is the SCAN-TECH equivalent in the UK (next show June 22-25, 1995 in Birmingham). Advanstar has not indicated whether it will incorporate the SCAN-TECH name into that event. In addition, a question remains about how Advanstar and AIMI will handle SCAN-TECH Denmark and SCAN-TECH Turkey -- national shows, sponsored by local AIM affiliates and not connected with Advanstar. AIMI's Brian Wynne recently told SCAN that these sensitive situations will be addressed separately.]

Comment

It would appear, to the cynical, as if Advanstar had purchased the same merchandise twice. However, the participants in the recent negotiations wisely decided to ignore the implications of the first sale by AIM/Europe -- as to who owned what and when -- and proceeded to clear the air for all of the regional AIM affiliates and exhibitors to the shows. In the final analysis, all parties emerged with exactly what they wanted -- at a fair price -- and that's the test of a successful contract.

Special Report

Supermarket Automation Update

The level of interest and activity in the supermarketing industry resulting from the Efficient Consumer Response (ECR) phenomenon has been unprecedented, at least since UPC was introduced a generation ago. The trade press has been replete with articles on this subject:

From the editors of *Progressive Grocer* in their January 1994 lead story: "ECR is a concept that in one year has probably been discussed and written about more than any other idea in the annals of the supermarket industry." The magazine's April 1994 cover proclaimed: "ECR - The Dawn of a New Era?"

The significance of ECR and how it relates to automatic data capture (ADC) was described in a comprehensive research study completed in April by Kurt Salmon Associates (KSA). This report -- sponsored by *Consumer Goods Magazine (CGM)* and its sister publication *RIS News* (both owned by Edgell Communications) -- was laid out in an excellent 16-page supplement to CGM's Summer 1994 edition. These are some significant excerpts:

"ECR is the strategy in which store operators, wholesale distributors, brokers and manufacturers work closely together to cut costs and deliver better value to the consumer....Key elements of ECR include business alliances, continuous replenishment, simplified deals and category management to satisfy consumers better with lower total cost....KSA projects a \$30 billion savings across the total supply chain with a 41 percent reduction in inventory....

"Before food retailers can really start achieving major ECR benefits, they need to initiate or improve their bar code scanning practices and develop databases from that scanned data, link with suppliers via electronic data interchange (EDI) and rethink their information technology strategy....

"The benchmark for scan data accuracy exceeds 97 percent over all, and 99.9 percent in dry goods. However, most grocery retailers are still at 80 percent accuracy."

From these statements, it becomes apparent that supermarket operators have taken the Quick Response (QR) concept -- pioneered eight years ago by the general merchandise retailers (*SCAN* July 86) -- and have expanded it into an industry-wide effort involving all levels of food and grocery distribution channels. "Continuous replenishment," for example, one of the key elements expected to contribute to the ECR savings, is clearly analogous to QR and to the Just-in-Time systems introduced in automobile manufacturing operations in the 1980s.

Of particular interest to vendors of ADC systems and supplies is the following statement in the KSA report: "Every firm implementing ECR will need to improve its information technology systems to support ECR's re-engineered business processes and provide performance feedback to employees."

We have selected the following recent developments to illustrate specific ADC-related technologies that are contributing to the success and excitement generated by ECR:

* **Hardware:** Point-of-sale systems have changed dramatically from proprietary (single source) hardware and software components based on host computers, to a PC-based, open architecture environment. Personal computer networks are linked, allowing multiple work stations and multiple functions to be operated at one time. Retailers can now mix and match hardware from different vendors, and information can be easily shared with wholesaler and manufacturer partners. One retailer reported (*Supermarket News*, 2/28/94): "We're replacing \$30,000 towers with \$4,500 [in some cases \$3,000] PC systems that outperform them."

Open systems allow an increasing number of computer-literate retailers to shop for components -- including in-counter, upright and hand-held scanners -- that meet their needs for improved performance at reduced purchase and maintenance costs. This move away from proprietary systems has radically changed the way that equipment is marketed. *Retail Systems Reseller* (July 94) advised its readers: "With the continuing emphasis on open systems, resellers are finding it easier than ever before to provide low-cost solutions for small stores and automation novices. Acting as system integrators, they can put together turnkey, bar code-oriented point of sale configurations for less than \$4,000 -- a sum that sits well within the budget of even the smallest town market."

Another hardware phenomenon which is attracting increased attention is the self-scanning checkout. The objectives of self-scanning are to reduce costs and improve customer service and satisfaction -- two important aspects of a successful ECR program.

Finast (Maple Heights, OH) will be the first US chain to test the newest version of hand-held self-scanners. Customers will be issued Symbol Technologies portable laser guns which they will use to scan products as they shop through the store. Finast is owned by Ahold, the Netherlands-based supermarket giant that owns six other grocery chains in the US. Ahold had successfully experimented with this type of self-scanning system in two of its Albert Heijn stores in Holland (*SCAN* Sept 93).

Finast -- along with Pathmark (Woodbridge, NJ), A&P (Montvale, NJ), and Price Chopper (Clifton Park, NY) -- is also testing the more traditional type of stationary self-scanning systems. These systems, manufactured by Productivity Solutions (Jacksonville, FL) and Optimal Robotics (Plattsburgh, NY), have been around for many years (*SCAN* Oct 86, June 87). With this system, customers scan and bag their own purchases at dedicated self-checkout lanes. Innovative security devices are built in to prevent cheating. Price Chopper reports that one of its stores has four such self-scanning lanes that handle seven to ten percent of its total sales.

[In Japan, Hitachi has introduced a similar "unmanned self-checkout system" that was reported to be the most popular exhibit at the Japan Store Automation Show in March 1994.]

* **Coupons:** More dramatic changes in the methods of issuing and redeeming cents-off coupons have occurred during the past year than in the previous twenty years. There are signs that the industry may finally escape the outrageously expensive system which requires sending eight billion bits of paper to Mexico (the number of coupons redeemed each year) -- to be shipped, warehoused, counted, shipped, recounted, shipped, validated -- before the retailers can receive reimbursement (*SCAN* Mar 94). Most often, the little marketing

information that can be gleaned from these primitive coupon tallies reaches the manufacturers and retailers too late to be of any value.

There are two specific coupon changes that will impact "Micromerchandising," one of ECR's major objectives. [*Supermarket News*, 2/28/94: "The goal of micromerchandising programs is to target specific consumer groups, ranging from a particular store's most loyal customers to neighborhood ethnic groups to high-income families, as a means of spurring sales and building profits.]"

The first of these innovations is the "extended coupon code" adopted in August by the Uniform Code Council. This symbol, an up to 22-digit Code 128 supplement to the standard UPC coupon code, allows for the inclusion of an offer code, expiration date and household code. When directly linked to the purchase of the product -- through scanning software -- the system will provide immediate marketing data on product movement, coupon redemption and targeted customers. With proper safeguards, the coupons can quickly be validated and destroyed, and the retailer promptly reimbursed.

This expanded coding system would be used primarily on the 300 billion free-standing insert (FSI) coupons which are printed and circulated each year, mostly in daily and Sunday newspapers. The redemption rate for FSIs is only two to three percent (and is reported to be dropping as consumers grow tired of clipping and saving this "funny money.")

The second change to couponing comes under the heading of electronic marketing; i.e., preprinted coupons dispensed in the supermarket aisles, or custom-printed chits issued at the checkout counter. (The latter are triggered by current purchases; e.g., buy a six-pack of Coke, receive a \$1.00 coupon as an incentive to switch next time to Pepsi). This type of merchandising is now available in over 8,000 supermarkets -- and is increasing daily. The reported redemption rate for in-store couponing is over ten percent.

Needless to say, none of these systems will work without bar code scanning.

* Electronic Shelf Labels (ESLs): The very negative media focus on so-called "scanning errors" during the past year has prompted increased attention by the retailers to maintaining the accuracy of their shelf labels as part of their ECR programs (*SCAN* April 93, Sept 93, Dec 93). What the mainstream press constantly refers to as scanning error is almost always the result of improper maintenance of the shelf labels under the products. The items scan accurately; the database price is invariably correct; the shelf label is just not kept up to date.

ESLs have been around for more than seven years (*SCAN* July 87). Installing the latest versions of these LCD shelf tags -- RF-linked to the store's database for automatic updating -- costs about \$100,000 per store. (This is more than the cost of a complete front-end scanning system, based on the new PC-based open architecture). Although ESLs are not an investment that provides a tangible ROI that will please every comptroller, it is becoming a necessary feature that fulfills the "consumer satisfaction" part of the ECR programs.

We anticipate that ESLs will become more popular -- particularly if their prices come down -- and will spread rapidly from the few hundred test locations now installed. [The two leading vendors of ESLs are ERS International (Wilton, CT) and Telepanel (Markham, Ontario, Canada).]"

Comment

A great deal of skepticism remains about ECR. In the lead editorial of Progressive Grocer's 1994 Annual Report, Editor-in-Chief Michael Sansolo wrote: "ECR isn't a guaranteed success -- for a number of reasons. The biggest is fairness....Chains and suppliers win. The gains for wholesalers, brokers and independents are expected to be much smaller."

We believe that most of the ECR programs will be implemented, that ADC technology will play a major role in its successes, and that ADC vendors of retail systems should be aware and involved. In Supermarket Technology (a supplement to Supermarket News, 2/28/94), Editor John Karolefski commented: "In the beginning, there was scan data. In the end there will be the reward of Efficient Consumer Response....Scan data accuracy is the key....1994 is shaping up as the seminal year for scan data."

Although the seminal period will certainly stretch well beyond this year, the challenge to the ADC community is palpable.

[Note: The First Joint Industry Conference on ECR is scheduled for Dallas, TX on January 18-20, 1995. The event, sponsored by the Uniform Code Council and ten trade associations, is expected to draw 1,200 attendees. Contact: UCC, 8163 Old Yankee Road, Dayton, OH 45458; 513/435-3870.]

The provocative suggestions....

....in last month's lead article about the new DataGlyph technology introduced by Xerox Corporation ["Are you ready to be 'glyphed'?" (SCAN Aug 94)], prompted Harry Burke -- author, consultant, raconteur and one of our favorite ADC commentators -- to write:

"The Xerox glyphic analysis is faintly amusing: 'Two problems have sharply limited the use of encoding digital data on documents. The first is esthetics and the second [bar code] data density.'

"Esthetics, of course, is in the eye of the beholder. If the Xerox management prefers slash\backslash patterns to pixels that is fine with me. But, when it comes to data density, I dare say that pixels still have the edge. Then, too, /\\/ (100101) upside down is 101001 as it is with several other enciphering 'breakthroughs.' Be that as it may, something/something-else is doubtless more read-reliable than is something/nothing. Peace.

"In my view, the focal point should be on the commitment of some major organization (here Xerox) to an instrumented-cipher fitted to a significant market niche. If they carry through, this should be exciting. I am a firm believer in the goal they profess. However, I doubt if glyphs will soon displace barcodes -- from the factory floor."

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SCAN NEWSLETTER, LTD. • 11 Middle Neck Road, Great Neck, N.Y. 11021 • Phone: 516/487-6370 • FAX: 516/487-6449
PUBLISHER/EDITOR: George Goldberg • ASSOCIATE EDITOR: Jeff Goldberg • CIRCULATION DIRECTOR: Teddy Allen
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Phone: Int + 44-285-653011 • Fax: Int + 44-285-640401
