



newsletter

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

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It's a great feeling....

....to have a commodity for sale where the demand far exceeds the supply. That's what happened at Scan Tech 85 which has run out of exhibit space because the demand was far greater than anticipated.

According to Bill Hakanson, Executive Director of AIM/US, the first 90 companies that signed up took all of the space that was originally contracted for, and there is now a waiting list of over 40 companies. AIM has just completed negotiations for more space, which the show managers expect will accommodate everyone. This situation occurred because many of the early signers are planning larger booths than they had last year -- a positive reflection of the excellent results of a first-class exposition.

An added feature this year will be the reception on December 2, the evening before the show opens. At this event, the keynote address will be delivered by Nancy Austin, co-author with Tom Peters of the best seller "A Passion for Excellence - The Leadership Difference."

Scan Tech 85, (Dec 2-5, 1985 in Baltimore, MD), 1326 Freeport Road, Pittsburgh, PA 15238; 412/963-8588.

This year....

....delegates to SCAN TECH Europe 85 will be able to register for one, two or three days of seminars. The idea is to enable delegates flexibility in attending the conference and the show, which runs from November 25-28.

Day 1 covers broad applications and is intended for those delegates wanting an overview of bar coding. Day 2 has papers on the technology including bar coding, OCR, radiowave and magnetic codes. Presentations will cover different symbologies and their applications and various printing techniques. Day 3 deals with reading and decoding, both at a technical and application level. The exhibitions continue on Day 4. This year more exhibition space has been taken than at last year's pioneering event.

SCAN-TECH Europe 85 is at the Jaarsbeurs Congress and Exhibition Center, Utrecht, The Netherlands. Co-incident with SCAN-TECH Europe is the complementary exhibition, Logistica, which deals with equipment and systems for all aspects of material flow control. Delegates to SCAN-TECH will have free entry to Logistica. A highlight will be a 6000 square meter working model of the technical possibilities of materials control today.

For details of SCAN-TECH Europe contact ISM, The Old Vicarage, Haley Hill, Halifax, England, HX3 6DR; UK 'phone (0422) 59161; telex: 517250 ISMARK.

At EPoS 85....

...in London in September, there were over 50 exhibitors, and bar coding equipment was displayed on more stands than ever before. All sorts of scanners were attached to the EPoS terminals and we counted 21 vendors with bar code data capture capability. Even Kimball had bar code equipment alongside its traditional tag.

It became apparent while touring the show and seminars, that two major retail areas are poised for significant commitment to front-end scanning. The DIY (Do-It-Yourself) stores in the UK are scanning EAN bar codes using wands: B & Q, the leading DIY superstore retailer has 23 scanning stores, and Fads has 80 scanning stores. By the year end, there could be over 200 DIY stores scanning, covering products like paint, wallpaper, tools and other items for home decorating and small building jobs. A likely spin-off is that the EAN bar code will work itself into the commercial/industrial building sector and be used on some of the heavier products purchased by builders in the UK.

The other large retail group ready for EAN scanning is the convenience stores, both in the UK and throughout Europe. These two sectors, primarily geared to hand-held scanning devices, are a very significant potential market primed for further development.

Following up last month's...

....rundown of scanning progress at the mass merchandisers (SCAN Sept 85), we dug a bit deeper into current activities at K mart. And we found that things are really beginning to cook over there:

- K mart is now soliciting proposals from each of 5 POS vendors from their "short list." The companies selected were IBM, NCR, Datachecker/DTS, Fujitsu and AT&T. That last one is not a misprint: since AT&T has expressed interest in retail systems as one of their development areas, and since they have a significant investment in Olivetti, the company has been selected as a viable candidate.
- The proposals will be for 1,200 stores with 25,000 lanes (registers with scanners). Including all parts of the system, the package should amount to over \$150 million.
- K mart plans to select two vendors. About 5 to 10 pilot stores are to be set up and evaluated by mid-1986, and volume installations will start early 1987.
- The full POS system will include dual controllers (with a file capacity of over 200,000 line items), terminals, connectors, scanners, credit authorization peripherals and host communications. The new systems must be compatible with existing systems and with each other, a feature K mart calls "connectability." Each system will be individually programmable to satisfy the store requirements.

- Based on the company's efforts with its vendors, and the existence of crossover merchandise from supermarkets, it is estimated that over 95% of all non-apparel merchandise in the stores is already source marked. Because of the very large file expansion that would be necessary to accommodate the size and color specifics of shoes and apparel, some method for adding a secondary symbol is being explored for these commodities.

This represents total commitment to UPC. It will go a long way toward convincing any of the remaining doubters throughout the world that bar code scanning is the only viable alternative for retailers of all types. Whether it's a single lane 7-Eleven convenience store in Japan -- where a few thousand are up and running -- or a hypermarche in France, or a 50 register K mart store in the US, nothing else can do the job as well.

Zengrange, together with

....Hewlett-Packard have just announced a UK order worth £5M (\$7M) for 6,000 Zenwand-71 terminals (SCAN Aug 85). The system, being supplied to all of the 430 local offices of the Department of Health and Social Security (DHSS) throughout the United Kingdom, was designed and developed by Zengrange and the principal equipment manufacturer Hewlett-Packard.

A local DHSS office can handle up to 24,000 active cases and each case is kept in a separate file jacket. Each claimant's file will have a unique bar code. Typical file locations, such as inquiry desk, mail room, pension department and cashier, are also bar coded. When a file is moved from one office to another, the DHSS personnel will simply wand the file and destination code to register its movement. At the other end all files will be booked in, enabling stray files to be identified and any file to be traced quickly.

Zengrange Ltd., Greenfield Road, Leeds LS9 8DB, West Yorkshire, England; UK 'phone (0532) 489048; telex: 557621 ZEN G. Hewlett-Packard Ltd., Nine Mile Ride, Wokingham, Berkshire RG11 3LL, England; UK 'phone (0344) 773100.

Has RJS gone through....

....an identity crisis? We couldn't help but wonder when we noticed the recent Therma-Bar 2001 printer ads and press releases identified as RJS Enterprises in one publication and Cintrak in another.

It actually turns out that the company has experienced the usual settling-in period that follows most acquisitions (SCAN Dec 84). In this case RJS has re-established a firm grip on its own operations and will expand and develop those products and programs which prompted Signode/Cintrak to acquire it in the first place.

RJS Enterprises, once again under the direct supervision and control of its founder and President Harry Palmer, has grown to 130 employees. It has opened a new sales office in Livonia, Michigan to service the automotive industry with labels, printers and verifiers, and has restructured its sales and marketing department.

William McCubbins is the new Vice President of Sales and Marketing, coming to RJS after 15 years with Signode. Reporting to him there are now 5 Product Managers: Dan Niemiec takes care of the Thermabar 2001; Kathleen Parsons looks after verification equipment (she is also VP Industry Relations); Vicki King watches over the VLP/85; Frank Baca handles soft goods (film masters and pre-printed labels); and Arun Gupta is the Product Manager for printer product consumables.

In an important departure from its prior policies and practices, RJS will be looking outside the company exploring scanning system products which can be offered through the newly expanded sales and marketing organization. This is expected to develop further in 1986 and it portends a much different company than the one that handled only film masters and verification devices a few years ago. RJS is assuming the leadership in the Signode/Cintrak move to become an important full-line company in the automatic identification industry, offering hardware, supplies and services approaching a full system capability.

RJS Enterprises, 140 East Chestnut Avenue, Monrovia, CA 91016; 818/357-9781.

A great deal of attention....

....is being focused on Japan and its activities in bar code scanning. The most recent issue of Bar Code News carried a number of feature stories on the developments in that country -- and, of course, recent history has much of the world looking over its shoulder to see if competitors from the Orient are gaining on us.

It was timely, therefore, when the Technology Transfer Institute organized a study mission to visit Japan and to meet with the manufacturers, distributors and users of bar code scanning equipment. One of those who went on the trip was Rich Bravman of Symbol Technologies. We met with Bravman and asked him to share some of his thoughts about what he learned on his visit.

- The greatest area of current bar code scanning development seems to be concentrated on CCD (charge coupled diode arrays) technology. The Japanese are familiar with CCD's. It has the advantage, which the Japanese always seem to prefer, of being home-grown, and the costs are lower.
- The largest single concentration of scanning is in the 7-Eleven retail stores. There are 2,700 convenience stores scanning in this chain alone, out of a total of 4,500 scanning retail stores. The original wand scanners installed by 7-Eleven have not performed well and half of them have already been replaced by CCD devices. Bravman pointed out that Japan has few large supermarkets and shoppers are still oriented toward daily trips to one of the 90,000 small local groceries. Therefore, larger multi-lane supermarkets with slot scanners are not forecast as a significant future market for equipment.
- Although the industrial applications of bar code scanning are about where the US was five years ago, no one expects it will take five years to reach current levels. Industry in Japan knows about the advantages of automatic identification and is poised to move rapidly in the next 1-2 years. There are many pilot programs already up and running -- but

there does not seem to be any movement by industry consensus as we have experienced in the US.

- The symbologies of choice seem to be the same as those currently in use in the West, i.e. UPC/EAN, code 39, I 2/5 and some Codabar.
- Japan will probably continue to provide technological and hardware leadership in printers.
- Laser diodes are under development and probably coming soon -- but no clear picture emerges.

Bravman concluded the interview with a very strong caveat about any company planning to enter the Japanese market: you must have a product that is technologically superior to any available in Japan; you had better understand the marketing and distribution structure which is quite different from ours and which communicates through a well entrenched old-boy network outsiders cannot hope to penetrate; and be prepared to invest heavily in time and money to establish a profitable position in that market.

A new study....

....on Optical Character Recognition (OCR) has been published by International Resource Development. The scope of this report is the US market for OCR equipment, software, maintenance, parts and service. The current and projected US demand are measured and analyzed.

One of the conclusions is that few of the markets anticipated as growth areas 20 years ago developed to their forecast potentials. For the purposes of this report, IRD has segmented OCR applications into four areas: office automation, turnaround document processing, retail and industrial processes, and mail processing in commercial and US Postal Service environments.

Of particular interest are some of the comments in the the Executive Summary of the report:

- The majority of OCR applications center on handling data in controlled formats and type styles.
- Errors still occur, and the cost of substandard printing is reduced throughput.
- OCR has often been called a "transitional technology" and as such is likely to be displaced by other technologies at various times in the future.
- OCR faces serious competition from bar coding. OCR's greatest interest in this area has been the retail point-of-sale terminal market, but it has been comparatively slow in gaining acceptance.
- OCR also competes with bar coding in various industrial settings. There, however, bar codes have certain innate advantages such as code redundancy, greater focus flexibility, and reading on the fly. It is unlikely that OCR will have a chance to gain significant ground in industrial settings in the future.

- The appearance of dual OCR/bar code products, including a number of hand-held readers, is more a tribute to the success of bar coding than the success of OCR.
- Excluding the US Postal Service contracts for mail handling, the commercial market for OCR equipment in 1985 is estimated at \$395 million. The forecast for 1990 is \$322 million, a drop of 20%.

The overall picture presented does not seem to be one of a vibrant growing technology. Of particular interest to us, the study confirms that OCR does not represent a serious threat to bar code scanning in any of the important bar code application areas.

IRD, 6 Prowitt Street, Norwalk, CT 06855; 203/866-7800

We enjoyed our participation

....in the International Conference on Packaging held at Michigan State University in mid-September (SCAN July 85). The session on bar code scanning was reasonably well attended and the presentations were well received by representatives from many countries, industries and disciplines.

A group of us from the bar code scanning industry took advantage of the visit to take a tour of the MSU School of Packaging. The University offers both undergraduate and graduate degrees in packaging and we were told that employment opportunities were good, with extensive recruiting taking place each year.

What we were disappointed to learn is that education in bar code scanning is virtually non-existent at the college. There is no course, or even a lecture, devoted to the topic and students were only generally aware of the technology. There are over 50 subjects available for graduate research -- and not one addresses automatic identification. We met with Dr. Chester Mackson, the Director of the school, and with other faculty members and graduate students, to discuss the subject. Our feeling is that we elicited interest, but there was limited enthusiasm because they seem totally unaware of the impact of bar code scanning on packaging.

It is an area that needs some work. There are a number of potential benefits that could accrue from a more aggressive coordinated program with those colleges offering similar courses of study:

- A new pool of talent for the engineering, marketing and management personnel that this industry will need as it grows.
- A means to utilize the talent and facilities of the schools, through research grants, to perform independent studies in many of the technical areas.
- A grass-roots educational effort to teach automatic identification to young people who will be employed as packaging specialists. Many of these students will wind up as potential users who will understand the advantages of scanning and incorporate them into the systems of their future employers.

- A great place for equipment manufacturers to install their testing and operational units. The teaching and research labs will pre-educate these students and familiarize them with specific "brand names." (This marketing approach has been used successfully for over 50 years, most notably with Singer sewing machines in our high schools earlier in the century, and Apple and IBM computers today.)

We recommend an active program by AIM and FACT to explore this further. Kathy Parsons (RJS) and Ben Nelson (Markem) promised to bring it to AIM; Ed Coe (Deloitte Haskins Sells) will take it up with FACT. We would like to hear about other colleges and universities with similar programs and interests.

There is a debate....

....raging (literally) behind the scenes in the bar code industry. Ranged on one side is the bar code establishment, represented by AIM/US, its Technology Symbology Committee and the engineering managers of some companies. Standing as the lone gun slinger on the other side is Harry Burke (NRC/Data Pathing Division).

The form of the debate has been a series of published articles and semi-private memos that have been selectively circulated. The latest series started with a Burke essay titled Bar Code Standards (SCAN Aug 85) and a reply from Roger Palmer (Intermec) on August 15.

The nub of the argument relates to Burke's contention that the standards being written for the industry do not pay sufficient attention to the relationship between the means and methods for printing bar code symbols versus scanning reliability. He believes there is no graphics printer available today suitable for general industrial use. He attributes this, in part, to the fact that the printing community has not paid any real attention to bar code problems and have not been represented on the various committees involved in this discussion.

The most recent missile in this exchange is a September 13 24-page memo from Burke to Palmer. (By his own admission, Burke dislikes confrontations at meetings, and prefers memos in which he can blast away at will.) And blast he does, not only attacking the results of the various industry efforts at writing standards, but also at the motivation of those who make them. He maintains that "AIM is not a proper standardization forum. AIM members are responsible for maximizing the sale of their employers' products (resulting in)...a direct conflict of interest."

Burke is tough, thorough and self-righteous, a difficult combination to oppose. His memos are replete with documentation and colorful prose, and he has no hesitation in accusing individuals of self-serving motivations -- as he did when he questioned Roger Palmer of Intermec, Chairman of the AIM Technology Symbology Committee, stating: "I do not see how you can perform your position as Chairman of a Symbology Committee. You have a legal obligation to the stockholders of Intermec. To perform this duty, your decisions must promote the sale of Intermec's products to the best you are able. As Chairman of a key Symbology Committee, you have an obligation to those who are trying to use bar codes. I hold these two tasks to be in direct conflict."

COMMENT

The debate is important and enlightening, but it might be better addressed in a more formally structured format leading to specific conclusions for

some specific problems. Certainly it serves no purpose to impugn the motivations or integrity of any of the organizations or individuals involved. Unfortunately there are too few sufficiently knowledgeable people in the industry able to devote the time necessary to resolve these issues -- and it is not unusual for the manufacturers, self-serving or not, to lead the way in the early stages of development in any technology. This may be an appropriate time, however, to launch a serious program to support independent research carried out by a university, foundation, or other independent group.

The first spanking new....

....edition of Automatic I.D. News (July-August 1985) was in the mails a few weeks ago. It is tabloid size and the 32 page issue was chock full of product news and full color ads.

In addition, there were a number of feature stories from contributing editors including Craig Harmon (QED Systems), Harry Burke (Data Pathing/NCR) and Ed Coe (Deloitte Haskins Sells). Harmon is aggressively pushing his Bar Code User's Group; Burke highlights the relationship between printing technology and the bar code schemes selected; Coe conducts a question and answer forum. The publishers are to be commended for the scope of this first issue which covers a wide range of equipment and application subjects. If you have not received your free copy; Automatic I.D. News, Box 6158, Duluth, MN 55806-9858. For editorial and advertising: 545 Fifth Avenue, New York, NY 10017; 212/503-2990.

We stumbled across....

....a situation in the UK which understates the use of scanning at retail, and distorts comparisons of scanning store installations between EAN countries. The number of scanning stores and vendor market share figures are reported only for flat bed (slot) scanners. Deliberately excluded are installations using hand-held laser scanners and wands, even though the EAN bar code is being scanned and the retailer has a full EPoS system.

The implications of this are quite significant. The number of installations, and the use of hand-held devices, is understated and underrated. The market share figures for vendors get distorted. Riva, for example, which would be ranked #2 or #3 in the UK with its 80 installations in Fads stores, currently gets no mention. In addition, there are technical differences with hand-held scanning -- like symbol and orientation -- which will not be properly addressed if the facts are not presented accurately.

We question the narrow definition of EAN scanning, as used by the Article Number Association and RMDP, which compile the data and we would refer them to the AIM definition: "Any electronic device that optically converts printed information into electrical signals." In addition, we would add that scanning must be related to the EAN/UPC bar code symbology and store scanning should refer to point-of-sale data capture. It would be helpful if all countries (certainly including the US) adopted the same criteria.