The bar code is beginning....

....to show up on more and more items for scanning <u>by</u> the consumer. The first one we noticed was the Casiotone Keyboard (SCAN Feb 82). This unit included preprogrammed background rhythm, chords and melodies, in bar coded form, read by an attached scanner and played back on command.

Now there is the new Texas Instrument <u>Magic Wand Speaking Reader</u> which is generating a great deal of interest and positive response from the teaching and publishing worlds. This battery operated device, due to be available later this year, will be sold for $120 to help pre-school children to read. The hand-held wand scanner will read the bar code under the printed words and will electronically reproduce the spoken word. TI plans to license publishers to issue the "talking stripe" books, which will be used with the readers. The new reader stores 128 word sounds which it strings together to form natural sounding speech -- words and sentences in an unlimited multilingual vocabulary.

The consumer will see it in the supermarket, play it on his piano, develop it on her photographs and teach her children with it. "It" is the machine-readable bar code symbol. Scanning will cease to be an oddity and become a way of life in the very near future.

The extensive use....

....of bar code symbols and labels by <u>Kodak</u>, on their new <u>disc camera system</u>, is growing in significance (SCAN March 82). The preprinted cartridge labels, produced by Oliver Products Company of Grand Rapids, Michigan, have one bar code which identifies the product (ID code), and another identifying each disc negative (film identification number). The film identification number is represented by a Codabar symbol with 6 significant digits plus a start and stop. The code sequence runs from 0 through 999,999 and then repeats. The film identification number is intended to be used by the customer to identify the film, and by the photofinisher to link each film unit to a specific customer's order envelope.

At the time that the film is ready for factory loading into the cartridge, the film identification number on the cartridge label is scanned. That bar code and the associated human-readable number are then reproduced on the film disc itself as a latent bar code image. When the consumer returns the film for development, that latent image is simultaneously developed, then scanned and printed as a human-readable number on the back of each photoprint.

We have learned that Kodak has spent a great deal of money to develop the bar coding part of their system and is extremely protective as to its operating details. They are not releasing that technology, nor the key elements to the improved productivity, to any other companies. The company is particularly careful to protect its technology in the preparation of the cartridge label as well as in the production of the bar coded film image. Even their licensees, other companies which will be producing and/or processing the disc system, will not be privy to this information.

The scanning industry can only be pleased with the high visibility resulting from the decision to select bar codes as the most efficient method for controlling this new process.

The Automotive Industry Action Group (AIAG)....

....is continuing its work to improve productivity in the US auto industry (SCAN April 82). There have been some recent actions and decisions that are directly related to bar code scanning, which has become a very important part of the total effort:

o   The Group has recommended the use of 3/9 and interleaved 2/5 bar code symbologies throughout the automobile industry. Where space allows, the 3/9 code is preferred because it is alphanumeric.

o   The project team members have begun work on developing bar code formats for standardized shipping labels and individual part labels. It is intended that all of the information on the labels will be represented in machine readable bar codes, including supplier identification, part number, quantity and shipping information.

o   The Group is specifically asking for conformance to their recommendations on the selection of bar codes to avoid a proliferation of symbologies "that would add complexities and hinder shared uses by supplier, transportation and customer activities."

o   The newest project will be aimed at developing a standard industry coding scheme to identify auto manufacturers and their suppliers. This will possibly be modelled after the UPC system. (Editors note: Why not contact DCI and become integrated into that program? See below.)

AIAG, 466 Stephenson Highway, Troy, MI 48084.

The assignment of vendor numbers....

....to companies outside the supermarket industry, is continuing through the efforts of the Distribution Codes Institute (DCI). Headquarters for DCI has been moved to Florida where Frank Knapp is the new president.

Knapp is encouraging manufacturers and suppliers in his industry, and other hard goods industries, to obtain their six-digit vendor numbers. They can then assign five-digit product numbers, and use these 11 digit DC numbers on cartons and documentation. This is a necessary step in the standardization of product identification, and preliminary to any future move toward machine-readable symbols.

We do not know if the DCI manufacturers' numbers can be assigned and used in those cases where the product numbering system does not fit into the current 5-digit constraint. We don't see why not. As suggested above, it might be an area for the AIAG to explore.

DCI can now be contacted c/o Air Conditioning & Refrigeration Wholesalers, 1351 South Federal Highway, PO Box 640, Deerfield Beach, FL 33441; 305/421-5500.

SCAN-TECH '82 is now open....

....for the rental of exhibit booths to companies who are not members of the Automatic Identification Manufacturers (AIM) organization. Over 50 exhibitors are expected to show their latest wares in 8' by 6' booths limited to table top displays of equipment and company literature. SCAN-TECH '82, the first industry conference devoted entirely to non-retail applications of bar code scanning, is scheduled for November 4-5, 1982 at the AMFAC Hotel and Resort in Dallas, Texas. We will be providing more SCAN-TECH details with regard to the names of the exhibitors, papers to be presented and updated conference events in future issues. Meanwhile you can obtain your exhibit booth or your attendance registration by contacting Bill Hakanson, AIM, 1326 Freeport Road, Pittsburgh, PA 15238; 412/782-1624.

AIM elected new officers for 1983-84 at their recent meeting. Ed Andersson (Computer Identics) will be the new Chairman and Dick Dilling (Intermec) the new Vice-Chairman. Congratulations to both. Our congratulations also to the outgoing officers headed by Chairman Dean Percival (Mekontrol). AIM has achieved enormous progress under their stewardship. Another example is the decision reached at the same meeting to open up membership eligibility by eliminating the minimum two-years-in-business requirement.

For the past seven years....

....there have been over 100 groups from EAN countries visiting the US studying the state-of-the-art of retail scanning. Automated checkout started with UPC, and most of the technical innovations have originated here. This is the place to go therefore, to study the latest technology and learn first-hand from the almost 6,000 retailers who have installed scanning.

According to Roberta Goldberg, President of TechTours Ltd, most of these trips were poorly organized and achieved limited success. She continues, "that's why Scanamerica was organized. This is a full service organization dedicated to organizing educational tours to gain the most complete and up-to-date information with the least amount of wasted travel and idle time."

Every Scanamerica tour will include store visits, seminars, meetings and presentations by experts in front-end automation. The subjects covered will comprise a wide range of related topics including store and warehouse operations, market research, the latest hardware and software innovations, inventory control, purchasing, random weight automation and improved management information systems. It won't be all work, work, work: Time is allocated for visits to major historical, entertainment and natural sites.

Goldberg has announced that the next scheduled 16-day tour will be English-speaking and will be conducted from November 5-20, 1982. It will cover 6 cities:

New York, San Francisco, Los Angeles, Las Vegas, Dayton and Washington DC. The cost is $3,900 including international and domestic air fares, ground transportation, first class hotels and some meals.

For information about this trip, or other scheduled English, German and French speaking tours, contact: Scanamerica/TechTours Ltd, 2416 K St NW (Suite 804), Washington DC 20037; 202/296-5673. Or the UK office at Scanamerica, 124 Pitshanger Lane, London W5 1QP; 01/998-6810.

As an example....

....of progress in the implementation of EAN scanning, Sweden is moving along at a steady pace. Swedish retailers and manufactuers were among the first to recognize the importance of POS scanning, and have been carefully doing their homework to be sure implementation would proceed smoothly. There have been a number of visits by interested groups to the US and other countries to keep abreast of developing technologies.

As of now, over 50% of all dry grocery products are reported as source-marked, with 70% anticipated by late '82. Less than 20% of the dairy products are marked and this will continue to develop slowly. There are six scanning stores, three of them with ICA, a leading coop chain. All stores are using hand-held wand scanners (DTS, NCR, IBM and Ads Anker). The ICA group have about 600 stores with electronic POS equipment and they are expected to move ahead rapidly with conversions during the next two years. It is reported that by the end of 1983 about 150 stores will be scanning in Sweden (possibly an optimistic forecast).

Lagging a bit behind, surprisingly, has been the large national cooperative chain, Kooperativa Forbundet, which did much of the original research into scanning applications in Sweden. KF has yet to install their first system and is reported working with their sister company Hugin, which is not quite ready with the scanning and related hardware. As noted before, Sweden is committed to wand scanning. This is primarily due to the requirement that checkout personnel can remain seated while working. Studies done in Sweden have concluded that wand scanning is fully as productive as slot scanning.

In general, Sweden's attitude towards scanning is positive and continued progress and excellent results are expected over the next few years.

Characterizing FY 1982 as a "difficult year"....

....David Allais, Intermec's president, believes his company is positioned to resume its historic growth pattern in fiscal 1983. Prior to 1982, the company had achieved an 8 year compound sales growth of 52%. The year ended March 31, 1982 showed a 9% sales decline and a sharp net earnings drop of over 56% (figures in $000):

	Year Ended	
	3/31/82	3/31/81
Net Sales	14,256	15,636
Net Earnings	715	1,651

According to Allais, the drop in revenue and profits was partly due to the loss of OEM sales of bar code printers to manufactuers of retail scales. Allais is "enthusiastic about prospects for fiscal 1983" because of the company's concentrated effort to develop the industrial market, the potential offered by the Department of Defense adoption of bar code symbology, and the growth of Intermec's international sales organization.

On the operational side, Intermec has officially unveiled its new Code 93 symbology and introduced the Model 9300I reader. Code 93 has nine modules with three bars and three spaces defining each character. It encodes 10 digits, 26 letters and 7 punctuation marks (like 3/9) and is similar in its construction concept to UPC. The symbol is continuous and, according to Intermec, is immune to uniform ink spread allowing for generous bar and space width tolerances. One of the major attractions of this new symbol is its high density. Starting with the same narrow bar width as a 3/9 symbol, code 93 occupies only 60% of the area. Code 93 has been placed in the public domain and has not been trademarked. A descriptive manual is available.

The new Model 9300I reader is programmed to read "all major industrial codes" (3/9, 93, I 2/5) in various user-selectable mixed combinations. Other features of the new unit include: flexible asynchronous serial data interface; ACK/NAK protocol; user beep control; compact, lightweight and easily installed; baud rates from 100 to 9600. The price of the Model 9300I (in quantities of one) is $948.00.

Intermec, 4405 Russell Road, Lynnwood, WA 98036; 206/743-7036.

The placement of a decimal point....

....can become a critical issue when attempting to establish industry standards. Tom Wilson of McKinsey & Company has been designated by the UPCC Board of Governors to resolve the last remaining questions required to issue a standardized random weight code and symbol to be used for the meat industry (Guideline 12). A number of questions have been raised by the National Meat Association (NMA) and most seem fairly straightforward and are being reconciled.

But the placement of the decimal point for the 4 digit weight code is more difficult and carries significant implications for the industry. The UPCC would like a 2 plus 2 format; i.e. the decimal between the second and third digits with pounds expressed in hundredths. Many of the NMA members object: some round off to one decimal place (tenths of a pound) and do not want to use a zero in the last position for fear the weight would be considered exact. Considering the current prices of beef, the difference could be significant. Seems like a minor point, but it is holding up UPC Guideline 12 which the meat industry is anxiously poised to implement.

We have probably devoted....

....as much time to the UPC/EAN issue of item pricing as to any other topic related to retail automation. Our position has always been that the issue must be defused, and that one of the best ways to do it is to guarantee the integrity of the shelf labels. Now we see signs of increasing interest in this approach. Retailers, especially those dabbling in item price removal, are concerned about the necessity for price integrity to build consumer confidence. More and more systems are becoming available to check shelf pricing, in real time, in the supermarkets.

We still like our own solution. Let the sovereign states abandon their laws requiring item pricing, and substitute severe penalties for any discrepancies: if the item is not priced, and the shelf marker is wrong, then the customer gets the item free (a common practice in many stores), and the store can be fined $100 for every incorrectly marked product.

Can't you just see the inspector walking into a store, picking up a portable scanning unit programmed with the store's current pricing, and walking around spot-checking a few hundred items? In the long run it would be a boon to the retailers and their customers.

When we were first contacted....

....by Matt Lezin of Identronix, he wondered whether we were interested in any automatic recognition method other than optical scanning. We concluded that our readers would certainly be interested in a system which purported to pick up where bar code scanning might leave off.

Identronix started by developing a system for implanting their UHF Transmitters under the hides of cows to record their movement in and out of the barn -- only the farmers didn't cotton to the idea. So the company moved on to railroad cars and signed a $15 million contract with General Railway Signal to do the same on rail cars (minus the surgery). General Railway is now installing Identronix systems on railroads in Africa and Canada. From that base, Identronix moved to vehicle identification (General Motors) and to the tracking of buses on their routes past the individual bus stops.

The system includes an active UHF Transmitter and receiver that reads a passive electronic tag at a distance of up to 25 ft. The tag is inexpensive, has no battery or power source, and contains a digital identification code. When the tag is powered up with a UHF signal from the reader, it transmits back its unique digital code. These tags can be used to automatically and remotely identify railway cars, buses, autos on the assembly line and in parking lots, shipping containers, pallets, conveyors, totes and of course the aforementioned cattle.

All of the above is from an enthusiastic report by Lezin who is director of marketing of the company. He is looking for new applications and marketing opportunities. Identronix, 1918 Soquel Ave, Santa Cruz, CA 95062; 408/427-2248.

Metrologic has been taking a new....

....and more aggressive approach to the scanning market. This manufacturer of lasers is now producing and marketing their Laser Data Terminal MS 131, featuring terminal communication functions, high-speed laser scanning, data retention, and portable data gathering. The system includes a laser scanning head and controller, plus optional features such as battery pack, expanded memory capacity, printer, modem, multiplexer and other hardware. The basic MS-131 lists for $2,990 including the software to scan UPC/EAN, Codabar, 3/9 and interleaved 2/5 codes. The company sees applications in libraries and warehouse/industrial environments. Metrologic Instruments, 143 Harding Avenue, Bellmawr, NJ 08031; 609/933-0100.