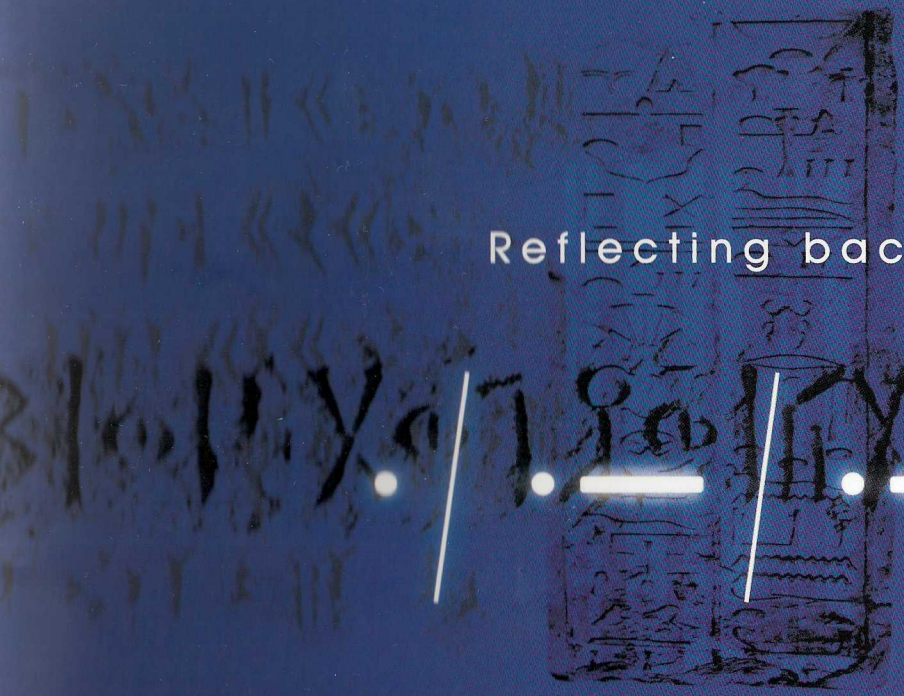
Reflecting back, moving forward



EAN INTERNATIONAL

25 YEARS

The Global Language
of Business

moving forward moving forward moving forward moving forward moving forward moving forward moving forward

moving forward



Tracking 25 Years of Success

Try to envision a world without bar codes. Pretty impossible to do, isn't it? Bar codes are prevalent and pervasive in our lives, so much so that we barely notice them anymore. Once the quiet workhorse of retailing, technological advances have transformed them into something the world can't live without. How did these little bars and spaces become such a fixture in everyday existence and, more importantly, where are they heading?

EAN International's 25th anniversary offers a wonderful opportunity to reflect on the bar code's triumphs and tribulations, as well as the organisation's many milestones.

It was a mere quarter of a century ago when manufacturers and retailers from 12 European countries came together to try to change the face of retailing. In fact, they accomplished much more than that, pioneering a new global language for business.

Today, from Anchorage to Zanzibar, EAN International and the Uniform Code Council, Inc. (UCC), the organisation that represents North American users, are driving their vision of "one system for the global marketplace".

Fact: Altogether, these practices fuel 900,000 member companies in more than 100 countries. With a solid track record, EAN International has proven its success in meeting challenges head on, and continues to pursue its goal of a seamless marketplace in the new economy.

It's not all bars and spaces: What is a bar code?

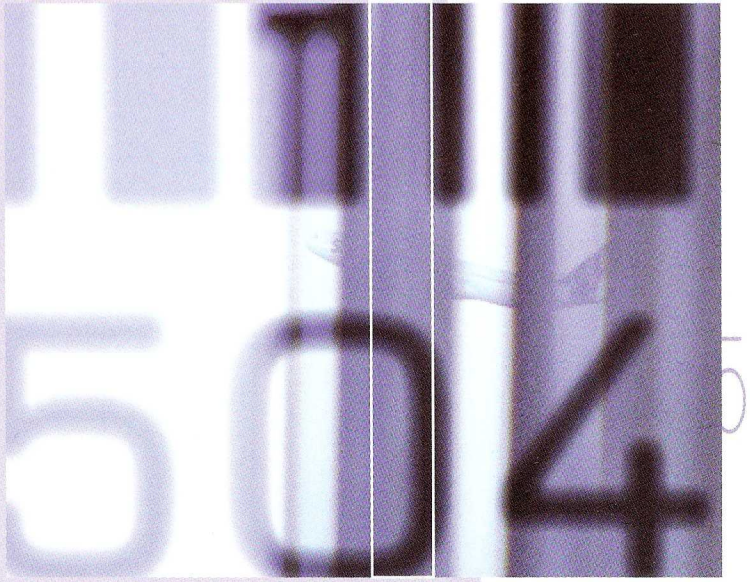
A bar code is a series of parallel vertical lines (bars) and spaces that represents data that can be scanned and interpreted by a reader (scanner). More than 200 different styles or languages (symbologies) were invented but only a handful is used regularly. They are Code 39, ITF ("Interleaved 2 of 5"), Code 128, EAN/UPC and the EAN•UCC standards. The latter enable any product to be uniquely identified by a number anywhere in the world.

Fact: The EAN•UCC standards are known as the world's leading system for efficient global commerce with more than five billion scanning transactions a day serving more than 23 major industries.

The best part of it all is that bar codes don't require human input so there is little chance of error.

Fact: Scanners can record data five to seven times faster than a skilled typist, and more than that, manual entry methods make one mistake for every 300 keystrokes. But a misread bar code symbol is somewhere between one in a million and one in four trillion.

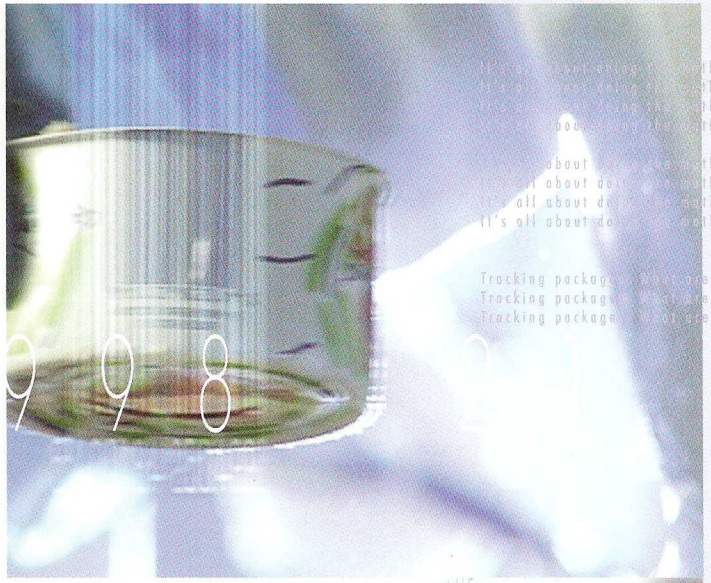
Fact: Many companies, after switching to bar codes from the traditional method of keying in information, experience a 50% improvement in productivity.



More than meets the eye: What's inside?

Basically bits of information. What kind of information? Well, most people think it contains descriptive data like product information and price but, in actual fact, in the majority of the applications it contains a unique reference number. The number, when read, is sent to a computer that looks up the information in a database. Think of it as a licence plate number that doesn't mean much by itself but when that number is entered into a relevant database, it produces a wealth of information about the vehicle.

It's all about doing the maths:



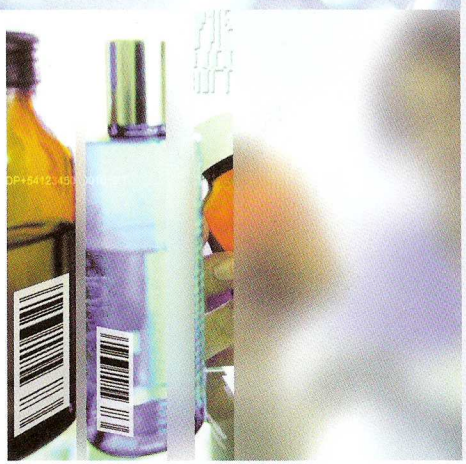
What do the numbers mean?

Each and every EAN number is unique in the world and has the following specifications: they are numeric, have a fixed length and end with a check digit.

Let's take an example of an EAN-13. This has 13 digits and simple, but carefully applied, administration ensures every product throughout the world has a unique and non-significant 12 digit number from which the 13th, reading from the left and called the check digit, is calculated. This basically indicates if the item was scanned (or keyed-in) properly. The reader is programmed to perform a mathematical calculation, designed to check if the scanner read the code correctly.

Tracking packages: What are they used for?

For most people, the most common encounter with the bar code is at the neighbourhood supermarket or store. Basically everything and anything in the retail sector that will eventually be scanned at the point of sale has a bar code attached to it. In fact, a cashier has a hard time selling you something that doesn't have a bar code on it. In the past, they have expanded to other sectors enhancing business operations. For example, they are found on material such as identity cards, direct mail pieces, invoices, labels and the like.



Testimonial: *"The benefits we derive from using EAN-13 numbers to identify locations for the purpose of electronic trading are the same benefits the EAN•UCC standards offer in other applications, such as inventory management or point-of-sale scanning," says Daniel Kochanowicz, Woolworth's QRS Manager. "That is, the use of a unique number world-wide, which eliminates the possibility of error and confusion."*

From punch cards to rail cars to grocery checkouts: History of the bar code

It's hard to imagine our lives without bar codes. This little symbol has become such a constant in our daily activities that they have become commonplace.

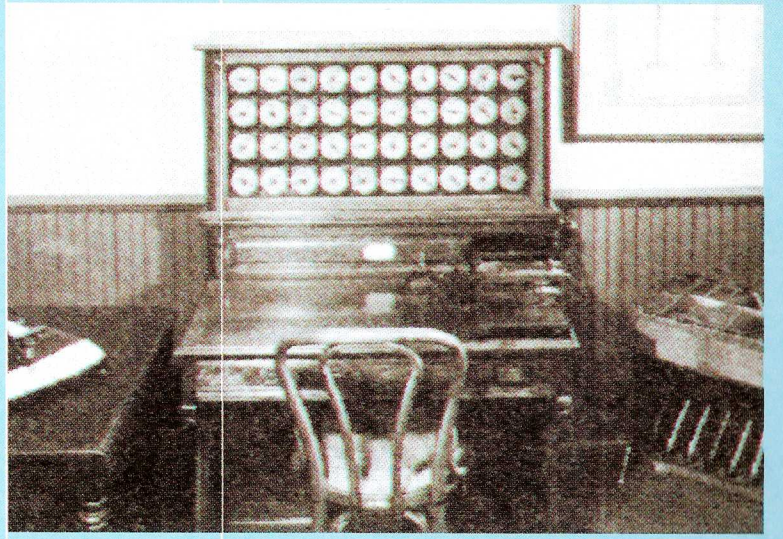
Fact: Today, it has grown into a 3.3 billion Euro multi-industry technology that is forecast to grow annually by as much as 20% for the next several years. Where is it going? To foresee the future, it is imperative to consider the past.

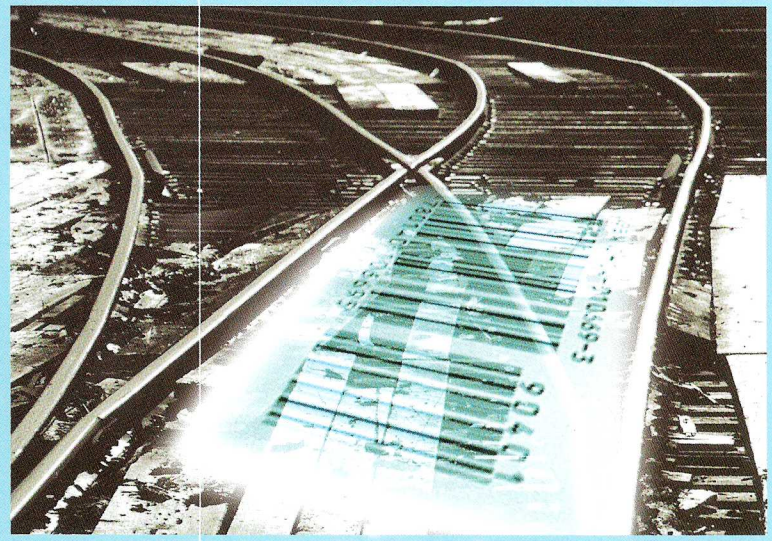
Herman Hollerith's punch cards used to process the 1890 US Census was the first glimpse into the eventful history of the bar code that spanned the next century. Fast forward 42 years to 1932 when a group of students at the Harvard University Graduate School of Business Administration embarked on an ambitious project that would lead to the first bar code concept. Brainchild of Wallace Flint who wrote a master's thesis on the subject, the proposal required customers to pierce cards to indicate their choice, the card was then inserted into a reader and the system automatically delivered the item on conveyor belts to the checkout. Unfortunately, the reading machine was big, bulky and expensive, which finally led to its downfall.

The premier inklings of what resembles the bar code of today was premised on the Morse code because that's what came to the mind of Norman Joseph Woodland, a 27-year-old graduate student and teacher at Drexel Institute of Technology in Philadelphia, when he embarked on researching a system to automatically read product information at the checkout in 1948.

Quote: *In regards to Morse code: "I just extended the dots and dashes downwards and made narrow lines and wide lines out of them".*
Norman Joseph Woodland.

Though it was a suggestion of his friend Bernard Silver who overheard the request by a food chain president, it was Woodland who became so consumed with finding a solution that he quit his job and moved to his grandfather's Florida apartment. Initially, he used ink patterns that glowed under ultraviolet light but moved on to experiment with movie soundtracks and Morse code that eventually led to the creation of a linear bar code. Finally, Woodland and Silver filed a patent on October 20, 1949, which became known as the "bulls eye" symbol because it was made up of a series of concentric circles. They were granted a patent in 1952.





Railroad companies began to explore the feasibility of bar codes in the late 1950s imprinting bar codes on the side of cars to track their whereabouts, marking the first industrial trials of this tracking method. David Collins, who was working for Sylvania Corporation at the time, discovered a system based not on black and white stripes but rather on rings. Eventually the project was abandoned in the 1970s when the recession deemed it unfeasible.



Collins envisioned the possibility of extending coding beyond railways and founded Computer Identics Corporation, a company that would eventually make great advances in laser technology. In 1969, the General Motors plant in Pontiac, Michigan, installed the first true bar code system. This validated their potential in the industrial sector but it was the grocery industry that finally propelled it into the mainstream.

Throughout the 60s, supermarkets were searching for ways to speed up the checkout process and track inventory, but it was in 1966 when the US National Association of Food Chains (NAFC) put out a request to equipment manufacturers to create a system exclusively for the industry, when it was commercialised. An industry-wide bar code system was developed in 1969, which resulted in the creation of the Universal Product Code (UPC) symbol. This moment will go down in history as it established the bar code as a fixture in the grocery sector. In 1970, a Kroger store in Cincinnati received the first scanner precipitating the launch of an industry-wide effort to standardise the system.



In 1974, manufacturers and distributors (Quaker Oats, Tesco, Metal Box, Boots, Reckitt and Colman) from 12 European countries got together to examine the possibility of developing a standard numbering system for Europe, similar to the UPC system in the US. They took the US idea and turned it into an international concept; for example the UPC concentrated on the retail point of sale, while the Europeans focused on the supply chain.

Testimonial: *"Where UPC insisted on a code containing system identification, manufacturer identification and product identification, EAN decided on a "blind" identity number: one where you cannot read meaning into particular digits," said Andrew Osborne, Director, e.centre-EAN UK.*

Though little is recorded of the first bar code transactions in Europe, it is known that as early as late 1972, checkout scanning equipment started appearing in European supermarkets. The pioneers were Swiss Migros and Danish Irma. Denmark and Germany started to distribute codes in 1977.

Fact: A packet of Melrose tea bags was the first source marked item with an EAN-13 bar code in the UK.

The next best thing to the real thing is testimonials from individuals who witnessed early bar code scanning operations in Europe.



From Swiss Migros to UK Boots: History of the bar code in Europe

Testimonial *from Irving Nixon, who was IBM's senior food retail consultant from 1977-91*

"My first sight of a scanning lane was early in 1976 at a demonstration centre in Croydon. The checkout had been imported from the USA and to UK eyes it was huge. The register was built like a tank and the scanner was designed for a standing operator. At £3,000 for the register and a further £3,000 for the scanner, many first time observers were sceptical. The all-in cost was £10,000 per lane at 1976 prices, once you included the controller and the checkout.

As a result, the European forefathers of scanning envisaged that some retailers would opt for key entry of 'velocity codes' of up to 6 digits as an alternative to scanning. This saved £3,000 per lane and would enable price look up (PLU) without manufacturers defacing their labels. What they forgot was the practical difficulty of applying the correct velocity code to each pack and time it took to key. Albert Heijn, in their first scanning store near Amsterdam in 1977, tried this approach. Within a week, they were convinced that scanning was a given. Tesco also tried this approach in 1978 in their trial store in Wellingborough where they tested the concept of price look up. International Stores in Folkestone and Sainsbury's in Broadfield, in February 1979.

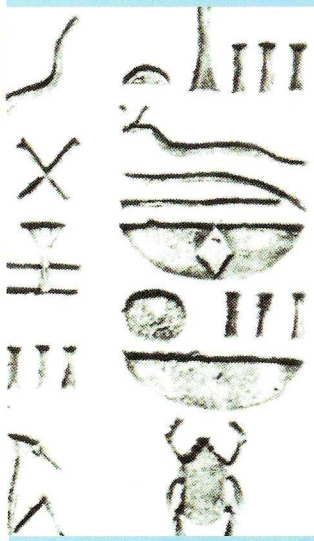


both tried the key entry route and regretted it. Scanning was the only feasible way forward and the challenge was on.
Scanning helped change this inefficient supply chain. Because price look up (PLU) meant that price marking of packs was redundant, the new stores were equipped for the first time with priced shelf edge labels. The decade from 1976 to 1985 saw the concept of scanning become reality. By the late 1980s, every pack had a bar code and every supermarket chain had a scanning program in place. And success was catching. Boots and other non-food chains had also adopted the EAN bar code. They were fun days."

Testimonial *from Trefor Hales, Director, Principal Consultant Founder of Strategy Partners (UK) Ltd. & Co-founder of Strategy Partners Group Associates Ltd.*
"Sainsbury's opened a new store at Broadfield, Crawley in November 1976; I was the store manager. The store was in the middle of a new edge of town housing development with a small parade of shops. Sales were below expectations and Sainsbury's in central Crawley continued to be the heavier trading store despite a smaller range and more congested sales area.

When the decision was taken early in 1979 that Sainsbury's should trial scanning, Broadfield, with its large sales and backup areas, lower sales density relative to the Sainsbury norm, and relatively close proximity to headquarters, was selected to be the site to test scanning. We would be one of the first supermarkets to do so and while Sainsbury's has a reputation for being risk-averse, the introduction of one of the first scanning stores in Europe was something that John Sainsbury was especially pleased about as it put Sainsbury's on a par with industry leaders in the US.

The first UK store to have live bar code scanning at the point of sale was Key Markets in Spalding in October 1979. At that time, less than 10% of groceries were bar coded at source by their manufacturer and the store had an enormous bar code labelling task to make their points of sale work. The manufacturers were not prepared to commit to putting the symbols into the artwork of their packs until they saw the retailers commit to the scanning technology. Over the next two or three years, retailers such as Sainsbury's, Tesco, International Stores, Fine Fare, WH Smith and Boots joined the community of scanning."



Fact: UPC developers were so confident in the system that the codes were standardised before bar code readers were developed.

Fact: During the first centuries AD, Ogham, the alphabet used by the Irish resembled a bar code.

Bar code invasion: coming to an item near you
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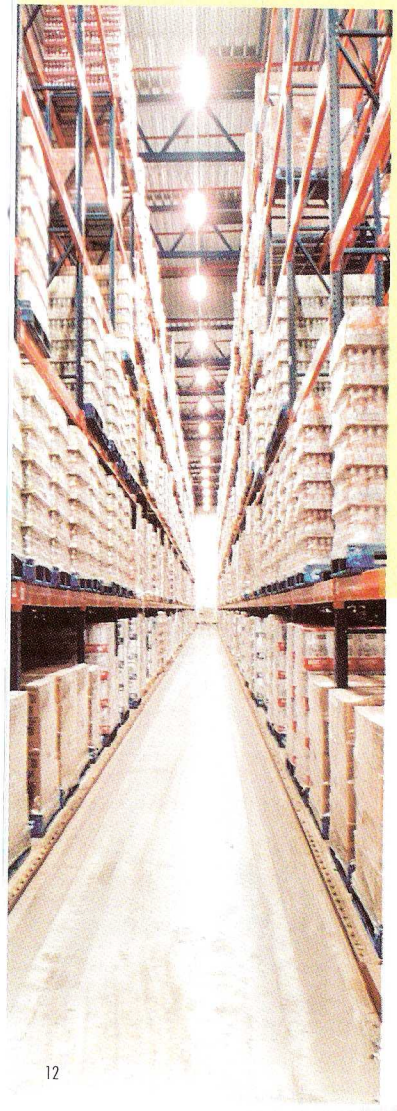
Bar code invasion: coming to an item near you

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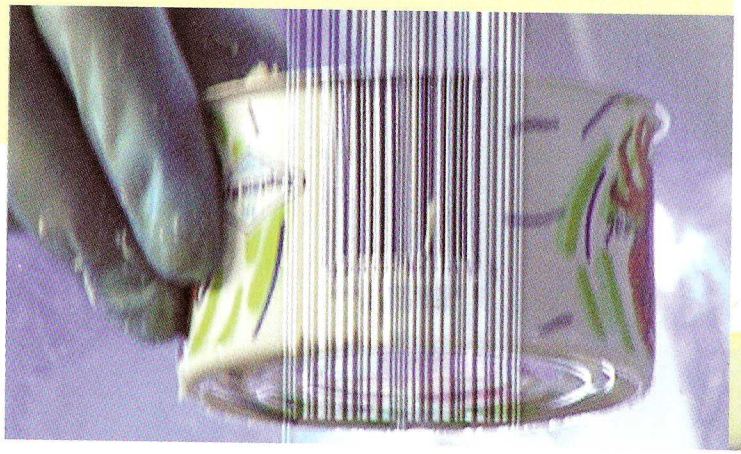
Bar code invasion: coming to an item near you

Bar code invasion: coming to an item near you



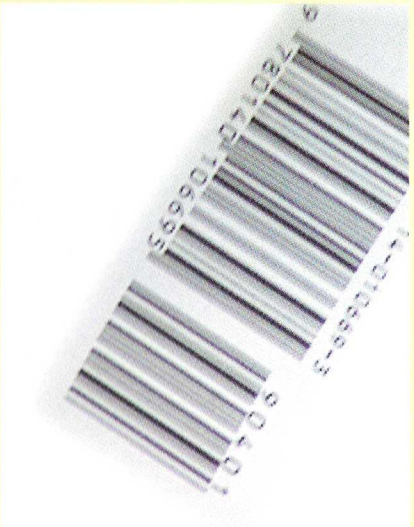
Take a look in the cupboard, refrigerator, kitchen, washroom, in fact every room in the home and you'll notice that all items: soup cans, milk cartons, shampoo bottles, CDs, magazines, mail, furniture, almost everything you buy, comes with a bar code symbol printed on it. The bar code's existence has improved the lives of the producer, supplier, distributor and most importantly, the consumer. How? It facilitates the management of the supply chain, or should we say the Demand Chain. In other words, it helps companies control their inventory and respond better to customer's needs.

What is the supply chain? It is the interconnected parts needed to turn an idea into a delivered product or a service. Supply chain management has received a lot of attention since the mid-1980s in hopes of improving customer service. Its success depends on companies working together to integrate business practices. Over the past 25 years, EAN International has played a critical role in optimising the supply chain by providing a common language, which promotes borderless communication.



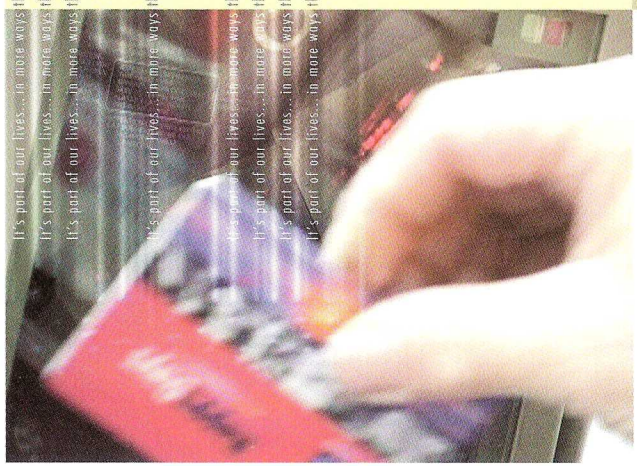


It's part of our lives... in more ways than you can imagine

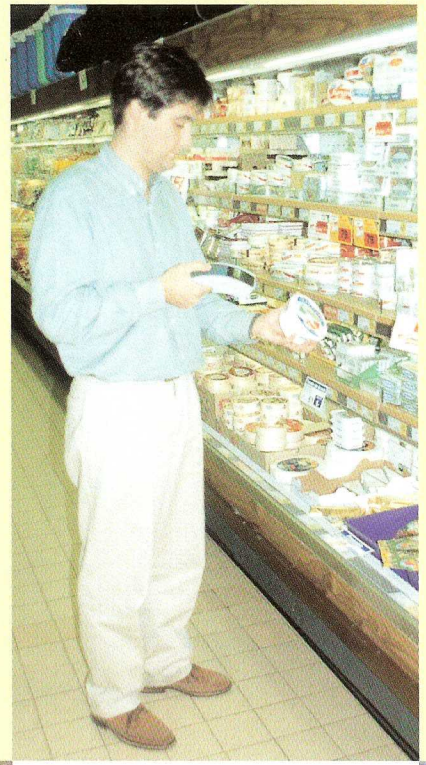


Bar codes come in all shapes and sizes and with advances in technology, they have become so versatile that they can be found on hospital patients' identity bracelets, office furniture, skiers lift passes, antidepressants, carry-on baggage and newspapers.

Practically every industry has experienced improvements in its supply chain with the introduction of the EAN•UCC standards including fast moving consumer goods (FMCG), manufacturing, transportation, retail, government/defence, healthcare, textile and apparel, and agrochemical. Here are some ways bar codes have made our lives easier and safer.



Close to home



When companies streamline their supply chain, it is crucial for them to uniquely identify processes in a standard manner. EAN International and the UCC, the organisation which represents North American users, offer a system to retailers to reduce costs, improve efficiency and ultimately, boost customer service.

Several large retailers have installed self-checkout lanes in their stores that allow customers to scan their own groceries. Shoppers receive a hand-held scanner and when they pick an item off the shelf, they scan it and put it into their cart. When they have finished, they drop off the scanner, receive the bill, which they take to a cash desk and pay. This saves up to 40 hours of paid labour a week per checkout stand. There's no way to cheat because a security system is in place, so you can't scan a tin of soup and then switch it for a steak later.



Industries at large

It's sometimes hard to imagine just how pervasive bar code technology is in sectors, which don't directly affect us. Here are some examples.

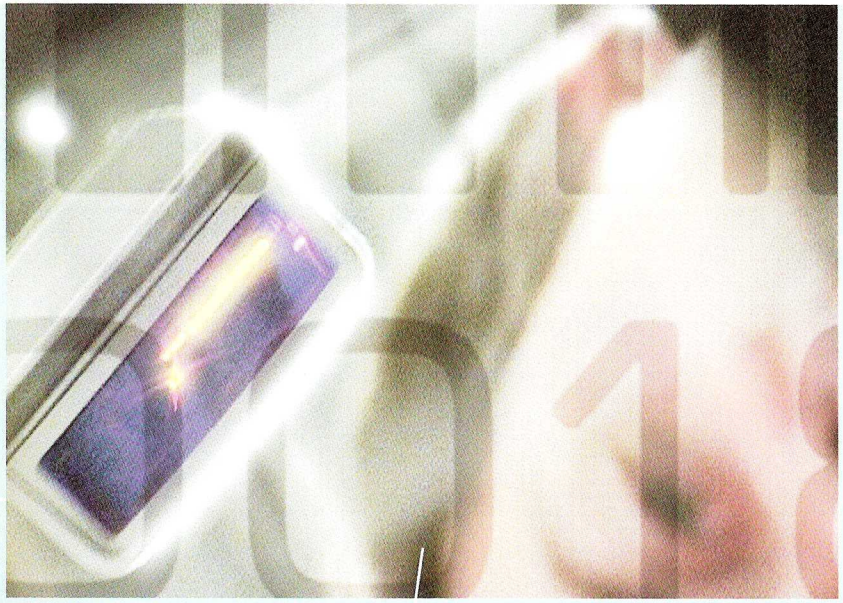


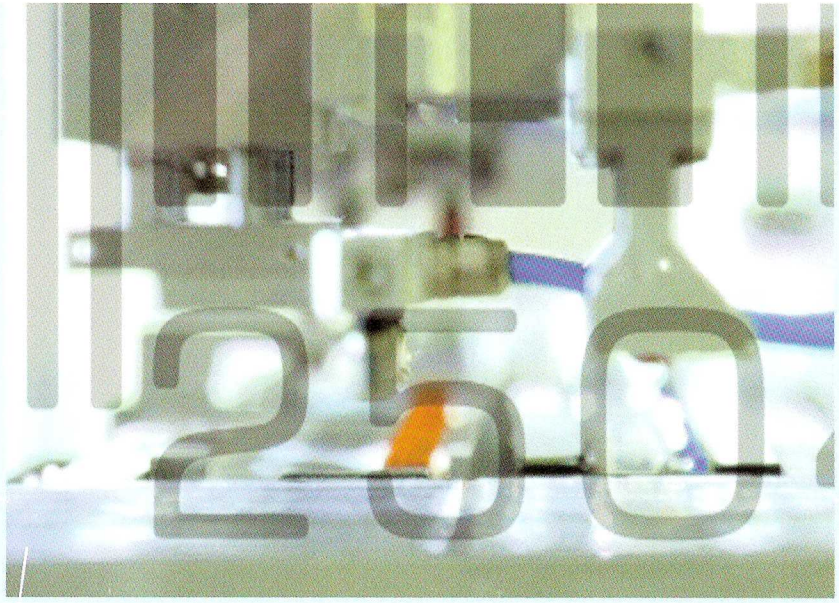
Healthcare

Tracking and tracing patients and pharmaceutical/medical products

Using bar codes is one of the cheapest and most effective ways of tracking and tracing patients and pharmaceutical products. The EAN•UCC standards are a foolproof method for achieving this. During 1999, France and Poland joined the ranks of the 44 countries using the EAN•UCC standards for the coding of prescription and over-the-counter drugs.

In the Netherlands, the National Emergency Hospital, part of the University Hospital Utrecht, has a 300-bed unit in the basement that is not used on a daily basis, but is on stand by round the clock to admit disaster victims. Its success depends on having the right information getting to the right people in the right place and at the right time. When a patient arrives, they receive a barcoded wristband, which identifies them for the duration of the treatment. This number also corresponds to a generic pre-prepared patient file that is built up with information derived from EAN•UCC bar codes as the patient proceeds around the hospital. The file is therefore built up with information such as injury type, medical urgency, treatment and locations within the hospital such as x-ray rooms and bed sites. Scanning automatically updates the history allowing all departments to have the most current information.





Government/Defence
Helping to keep us safe

Since the end of the "Cold War", the Defence sector has been under great pressure to reduce costs and improve the efficiency of its operations. As part of this drive, many countries' defence departments have adopted commercial standards into their supply chain through EAN International.

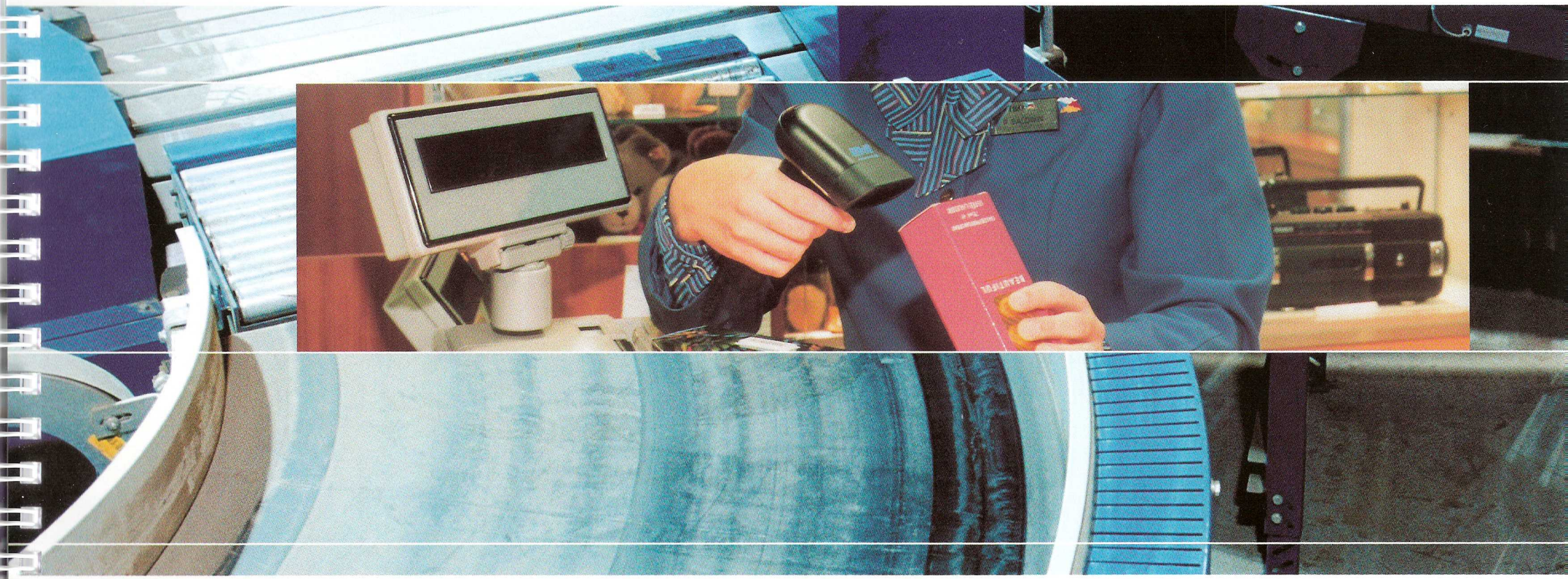


Transportation
Moving things from A . . . . . to B

Increasing environmental pressures have led to the need for companies to make greater use of reusable transport containers. With Automatic Data Capture (ADC), which is a means to identify and collect data into a computer system without using a keyboard, the information on a received shipment can be immediately sent to a central computer system and the package can be sent on its way. This, along with Electronic Data Interchange (EDI)*, allows shippers to know precisely where goods are at any given moment and when they will be delivered.

Cross Docking (CD) is a distribution system that employs both processes. When merchandise is received at a warehouse or distribution centre, it is not put into stock but immediately prepared for onward shipment. In other words, cross docking is the transfer of deliveries from the point of reception directly to the point of delivery with limited or no interim storage. It is characterised by very short lead times. The benefit stems from the elimination of time and costs needed to move the product in and out of warehouse. It is particularly useful for fresh products, such as poultry, in order to increase the shelf life of the product or slow moving products with small volumes such as cosmetics, hygienic products and apparels.

*Refer to page 24 for explanation



Debenhams is one of the UK's largest department store retailers, specialising in the clothing, accessories, home and cosmetic markets. Now, 19% of its inbound volume is cross-docked. All incoming cartons are labelled with UCC/EAN-128 bar codes and upon receipt are scanned off the carrier's vehicle using hand-held terminals and electronically matched against the despatch advice. As a measure of its success, Cross Docking at Debenhams has increased availability of products by seven per cent.

Quote: *"Cross Docking is very much sales reactive, so warehouse operations must be able to deal with fluctuations in the flow through of goods. One problem we have encountered is with large cube merchandise, e.g. bed quilts. A small variation in volumes puts pressure on space in the Central Distribution Centre and creates a need for extra vehicles. Cross Docking reduces the time you have to plan for these situations".*
Supply Chain Development Manager, Debenhams.

A container full of apples leaves the warehouse, uniquely identified with a Serial Shipping Container Code (SSCC), a specific 18 digit identification number. It will arrive on time and at the right place thanks to a single scan capability, which quickly processes its mixed contents by linking the container to a detailed EDI transaction.



Textiles and Apparels
Keeping track of the latest fashions

The concept of just in time is crucial to the textile and apparel industry, where manufacturers and distributors must be able to meet the demands of continually evolving fashion cycles and still keep costs down. Asia has played a forefront in this field and EAN International has developed a proposal that standardises the approach to supply chain management from identifying, tracking and tracing raw material to semi-finished and finished products.

An manufacturer in Sao Paolo ordered shirts from a supplier in the Czech Republic via Electronic Data Interchange (EDI). Since they both used the same global system, EAN International's EANCOM®*, it took only a couple of minutes before the employees in the warehouse near Prague knew which shirts to ship where and how payment would be made.

*Refer to page 24 for explanation

Big things come in small packages: Reduced Space Symbology (RSS)

The Reduced Space Symbology (RSS) family contains three linear symbologies to be used with the EAN•UCC standards. Designed by the UCC, it is employed where there are space constraints; in particular, products and packages like medicine to the single dose level, small medical devices, and fresh produce such as fruits and vegetables.

Fact: RSS could well save an estimated 4.6 million Euro annually in operating costs for a 100-store chain, according to research carried out in 2001.

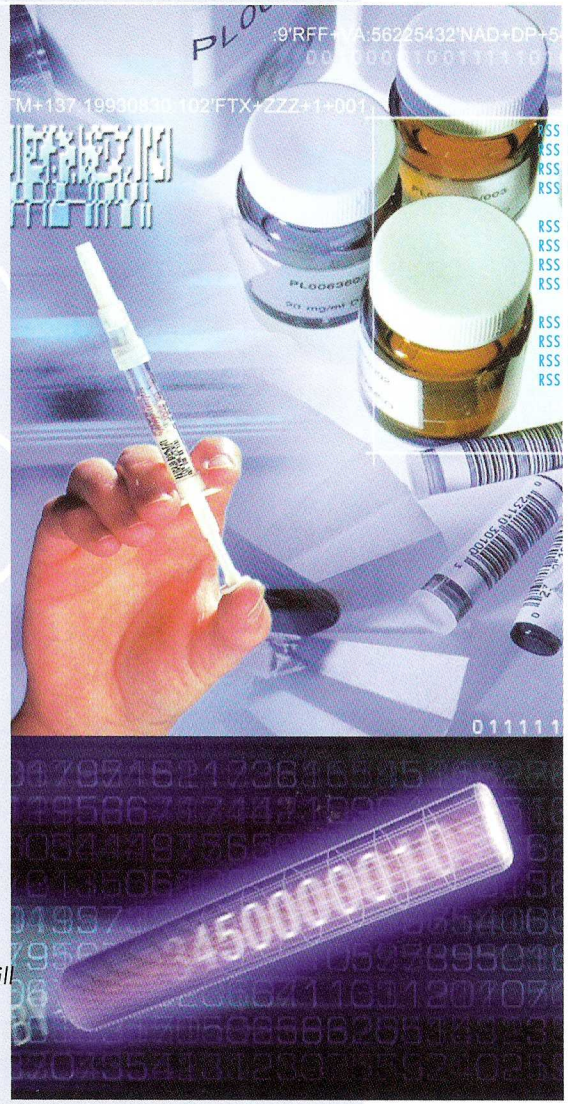
Miniature bar code technology mean great benefits for supermarkets:

Scott Sullivan, a patent agent and Robert Hess, a patent lawyer came up with an idea to put Braille on pills but if one of the raised dots came off or was damaged, the blind would misread it.

RSS was born out of a need for smaller bar codes without sacrificing the amount of information it could carry. Based on this premise, RSS and Composite bar codes have been developed to mark small products where linear symbology was not possible.

On May 2, 2001, a New York Strip Loin steak was passed over a scanner in Dorothy Lane Markets in Dayton, Ohio, marking the first commercial use of this new symbology.

***Testimonial**: "I remember how the UPC truly transformed our industry in the 1970s. I am confident RSS will bring the same type of innovation and convenience to the supermarket industry. The RSS bar codes may be small, but it will mean big benefits to supermarket operators and their customers." Norman Mayne, CEO, Dorothy Lane Markets.*



History of RSS

Stacked bar codes, travelling databases: Composite Symbols (Two-dimensional)

Just as RSS is a linear symbol for small items, composite symbols combine the linear bar codes with two-dimensional (2D) symbols allowing existing systems to operate while more advanced systems capture bigger data sets all in one symbol.

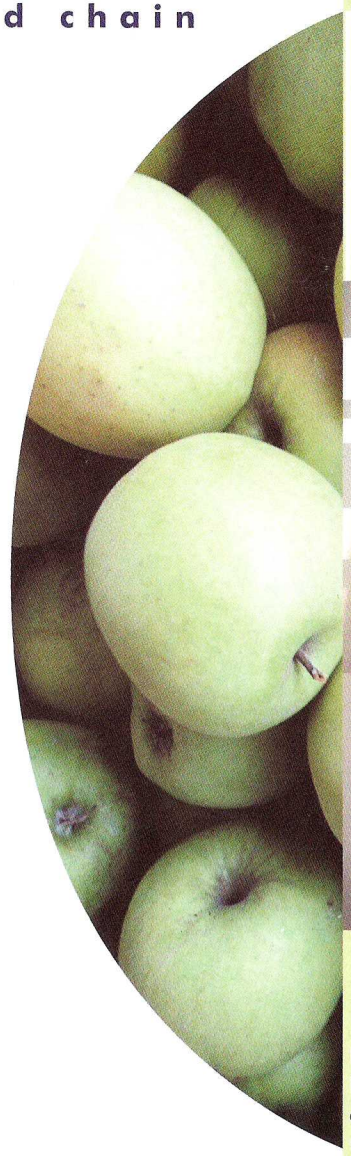
What's the difference between one-dimensional (1D) and two-dimensional (2D) bar codes?

When 1D bar codes are scanned, it is only the width that is measured. With 2D bar codes, it is both the width and height that is important. Imagine many 1D symbols stacked on top of each other. This means a lot of information can be kept, in fact, an entire database can be encoded in a single bar code.

Fact: Just how much is that, well more than a thousand numeric characters (up to 2,361 numeric digits for Composite) can be placed in a single symbol the size of a large postage stamp.

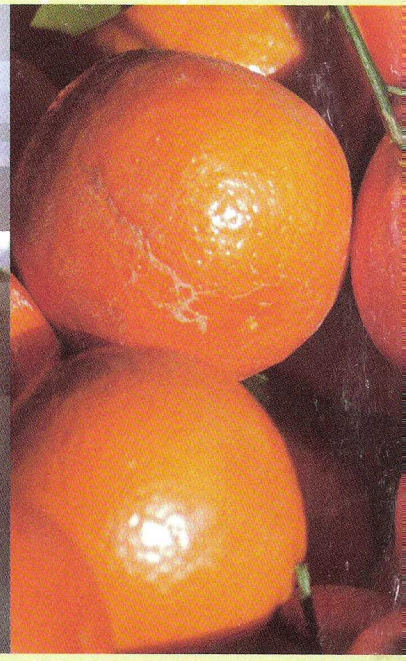
Traceability in the food chain

The recent food crises in Europe have produced wary consumers. When a defective product slips through quality controls, traceability makes it possible to trace the cause and respond quickly. The EAN•UCC standards offer a method to identify recorded information throughout the supply chain, thereby enhancing food safety for consumers through improved produce traceability.



It's all about apples and oranges: Future of RSS





In the future, scanners will also rise to the challenge and be able to recognise such items like beans, parsley, apples and oranges, overcoming occasional problems during checkout. And eventually, most groceries will wear tiny tags so they will be scanned automatically without us noticing.

"Smart label, talking tags": Radio Frequency IDentification RFID

Radio Frequency IDentification (RFID) is basically a "smart" bar code, sometimes referred to as a "talking tag" because it talks to a networked system. This works on two-way communication (radio frequencies) between the reader and the tag (transponder) to identify products and carry data through the supply chain. The reader generates an electromagnetic field that powers the system. The tag's antenna picks up the electromagnetic energy and retrieves and transmits data back to the reader, and finally to the host computer. EAN International and the UCC have been instrumental in standardising data communications using this technology and is moving to the next stage by developing specifications for storing and accessing data on RFID tags.

Tracking flying aircraft to roaming cattle: History of RFID

The RFID was born out of the need for British military to distinguish between their own or enemy aircraft during World War II. The IFF ("Identity: Friend or Foe") system placed a transponder on "Friendlies" so they gave the correct response to a signal indicating they were not a "Foe". To this day, aviation traffic control still uses this method. Further developments in the early 1970s allowed governments to tag personnel and equipment surrounding nuclear materials.
In the late 70s, the tagging of Europe's livestock became the earliest commercial use of this technology. After unsuccessful trials with bar codes, railroads turned to RFID technology because tags could be read at a greater distance and weather all climatic conditions, especially sunlight, which caused major problems for visual light systems like bar codes.

In the late 1990s, RFID technology, with the leadership of EAN International and the UCC, took on a new challenge: that of improving performance and reducing sizes and costs. At that time, EAN International and the UCC spearheaded the development of global standards for RFID to facilitate global trade by tracking moving goods around the world.

The vision of the joint EAN•UCC Global Tag (GTAG) project, is to have standards for RFID that will enable tags to be applied to goods at source by the manufacturer and for those to be readable in any country, in any industry sector and for any application. This must be achieved without the manufacturer of the goods having any prior knowledge either of the geographical destination of the goods or of the applications in which organisations further down the supply chain will use the data on the tag.

RFID Today

Weighing penguins to timing Grand Prix cars:

RFID has come a long way from tracking cattle. Nowadays, it has spread to every industry imaginable. EAN International has stepped forward to further the technology and improve the supply chain by developing tools to track returnable transport items and reusable containers, tracing systems for perishable goods and anti-theft protection systems.

Future of RFID

Say "good-bye" to long checkout lines and "hello" to "smart appliances":

Imagine filling up the grocery cart and walking straight out the door -- no more waiting in long checkout lines. Yes, they could be a thing of the past when RFID tags replace bar codes. Of course, we're talking a way down in the future but we can dream. What will probably happen is that RFID tags and bar codes will complement each other for a long time and will run parallel.

The tag detects and adds up each of the items upon leaving the store. For example, when a milk carton is picked up from the shelf, it may display its expiration date or it can transmit information to a cellular phone. It will also communicate the purchase information to retail and product manufacturers and notify consumers' bank deducting the amount straight from their account.

A new industry of "smart" appliances is emerging which means no more worrying about cooking instructions, storage conditions or expire dates. For this to work, each product would need a smart tag.

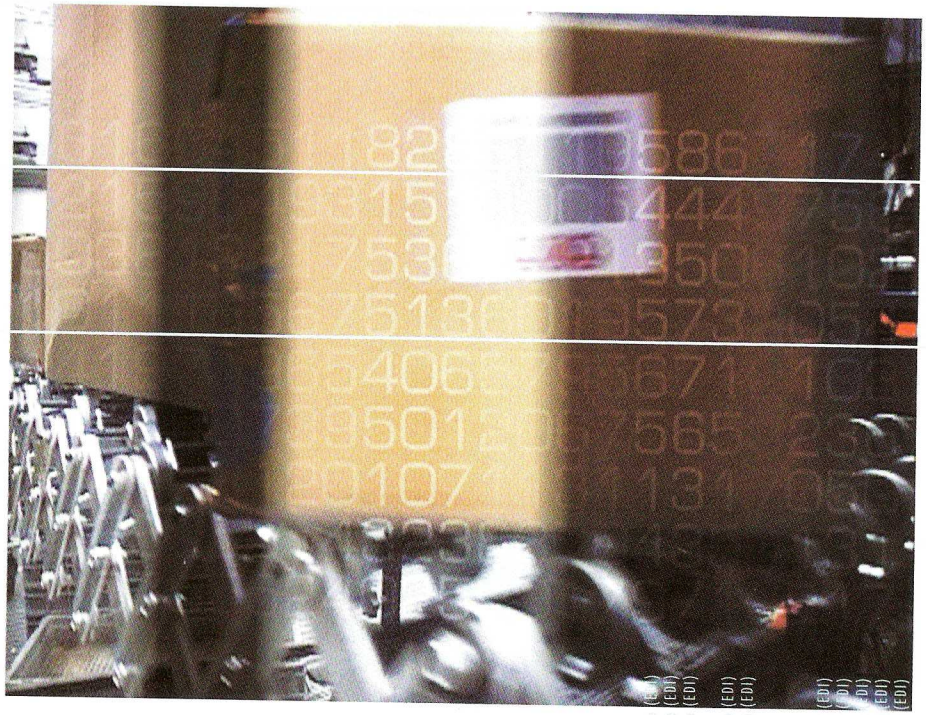
Fact: Every smart tag allows for trillions of unique numbers that can be assigned to products.

Communicating electronically: Electronic Data Interchange (EDI)

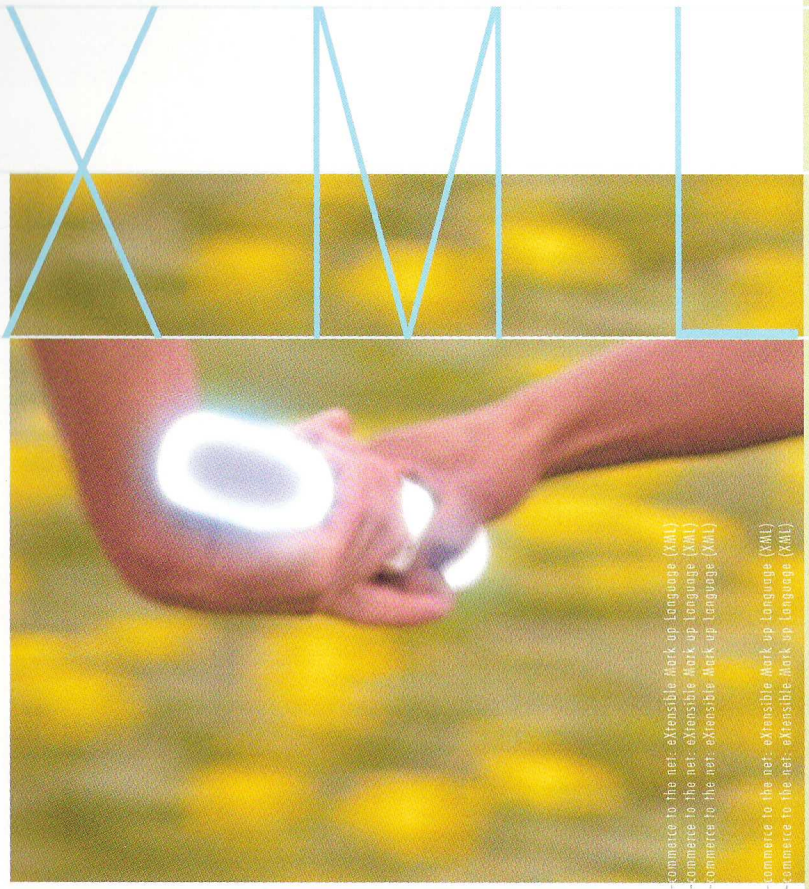
Electronic Data Interchange (EDI) is like paperless trading. It is the transfer of data from one computer application to another by electronic means without human intervention. Electronic commerce is changing the way we do business and EAN International has been at the forefront of standardising business communication through two methods. EANCOM® is a subset of EDIFACT, the internationally renowned United Nations system, while eXtensible Mark up Language (XML), is today's buzzword in the e-commerce arena.

The Swedish public sector has chosen EAN International's EANCOM® system as the basis for its electronic commerce project. The project titled 'Single Face to Industry' is expected to save the government over a billion Euros in administration costs.

Fact: EANCOM® has been adopted in many of the 98 countries using the EAN•UCC standards.



Connecting e-commerce to the net: eXtensible Mark up Language (XML)

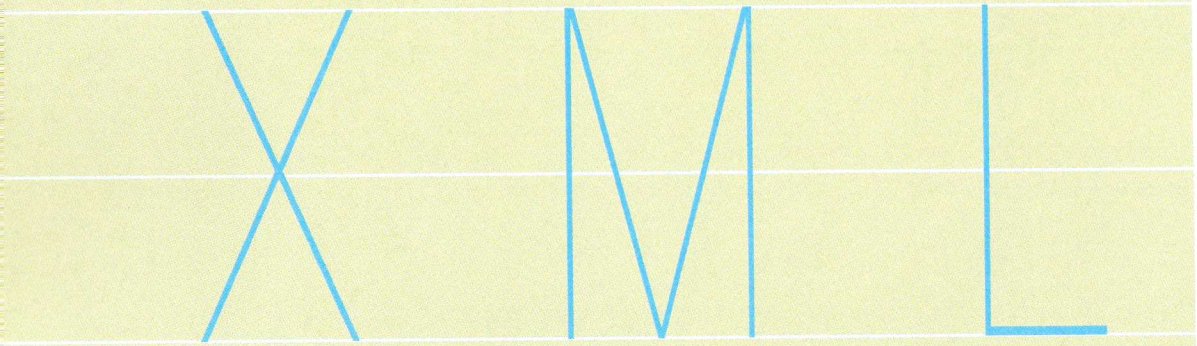


EAN International and the UCC, have produced the world's first full and open global standards for XML to enable users to conduct Internet-based electronic commerce. These schemas will allow industries with e-business solutions to fully exploit the power and reach of the Internet. It also can seamlessly communicate with EDI.

Taking the best of both worlds: History of XML

XML grew out of the need to make up for the shortcomings of its two predecessors, Standardised General Mark up Language (SGML) and Hyper Text Mark up Language (HTML). Both had their share of problems. SGML was very complex and very expensive. HTML was free, simple to use and popular but it was not able to meet the future needs of the web. Developed by the World Wide Web Consortium (W3C) with the power of SGML but the simplicity of HTML, XML has existed for a long time but it was only since the late 1990s that it has being used for B2B electronic communications.

Fact: the specification for XML is less than a tenth of the size of the SGML specification.



Bringing together e-marketplaces: XML today and in the future

EAN International plays a leading role in the development of XML for the business community. It began testing XML objects to support the business processes of ordering, dispatching and invoicing, bringing together all corners of the globe. It will become the driver for the creation of reusable XML components.

Testimonial: *"Our ability to interface through the Internet with both companies and exchanges has been broadened. This is essential for truly collaborative commerce." Ron Griffin, Senior Vice President and CIO, The Home Depot.*

Tracking success in tomorrow's world

Let's jump ahead ten years to 2012 and take a sneak preview into what is in store for bar codes of the future. Two emerging technologies that are sure to initiate great strides in supply chain management are mobile e-business linking everyone and everything and the wireless network connecting mobile users to various applications. This will inevitably change the way people shop. With the ability to scan bar codes using cellular phones or hand-held computers, consumers can compare prices, create online shopping lists or link to the Web to view product information.

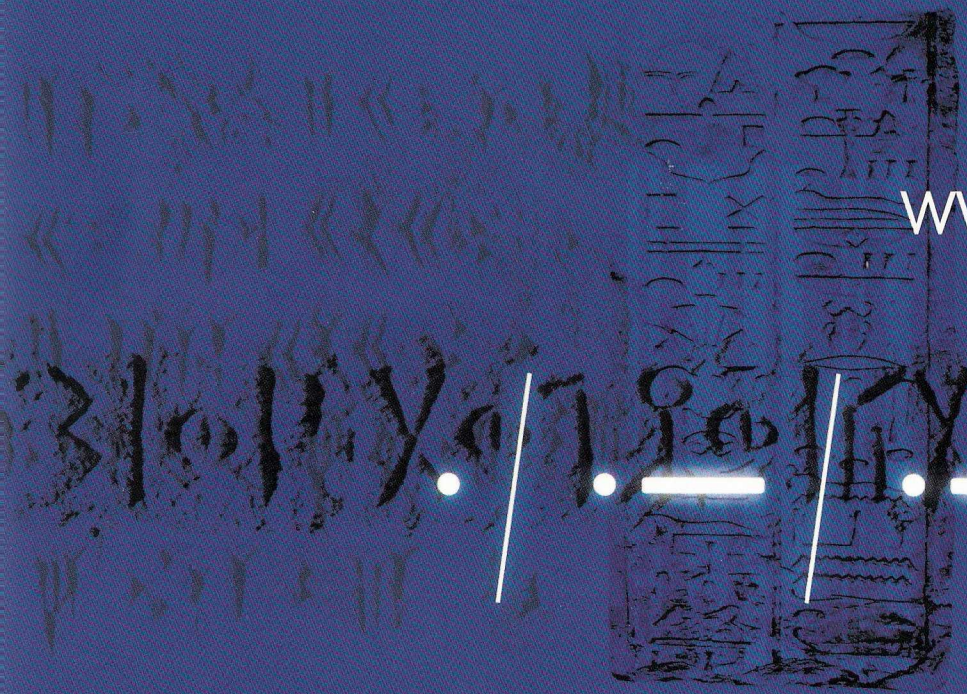
This opens up a whole new shopping experience. Even today, it is possible to scan a bar code on a CD and be directly taken to web sites with relevant information like other CDs by the artist, reviews, availability and prices in other stores. Similarly, we could scan a book in a friend's house, as opposed to writing the information down, hook up to an Internet retailer and purchase the book online.

All these developments are possible due to improvements in supply chain management, and through open and constant communication between trading partners. EAN International provides standards that nourish the co-operation of organisations that have similar objectives in mind – to meet customer's needs. Two organisations in particular have benefited from collaborative partnerships with EAN International. These are the Global Commerce Initiative (GCI), a global user group of manufacturers and retailers whose aim is to improve the performance of the international supply chain for consumer goods, and the Efficient Consumer Response (ECR), a supply chain movement requiring a joint focus on the efficiency of the total grocery chain.

In response to meeting the needs of supply chain trading partners in today's e-business world, EAN International and the UCC have taken up the challenge to be the driving force behind delivering the implementation of a single Global Logical Registry (GLR). This will, in fact, support efficient master data synchronisation through data pools. Master data sharing between trading partners is one of the most important supply chain processes, since master data is fundamental to all business systems.

Having just entered the 21st century, new technologies will undoubtedly affect how we live and work. But one thing is for certain; EAN International will be there every step of the way keeping pace with the ever-changing future. Their goal is the same as it was 25 years ago when they embarked on creating "one system for the global marketplace", -- that is, to continue tracking the successes of tomorrow's world.

Celebrating a momentous year of success .



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25 YEARS

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