



Barcode Scanning

eTailer Conference
17th August, 2011

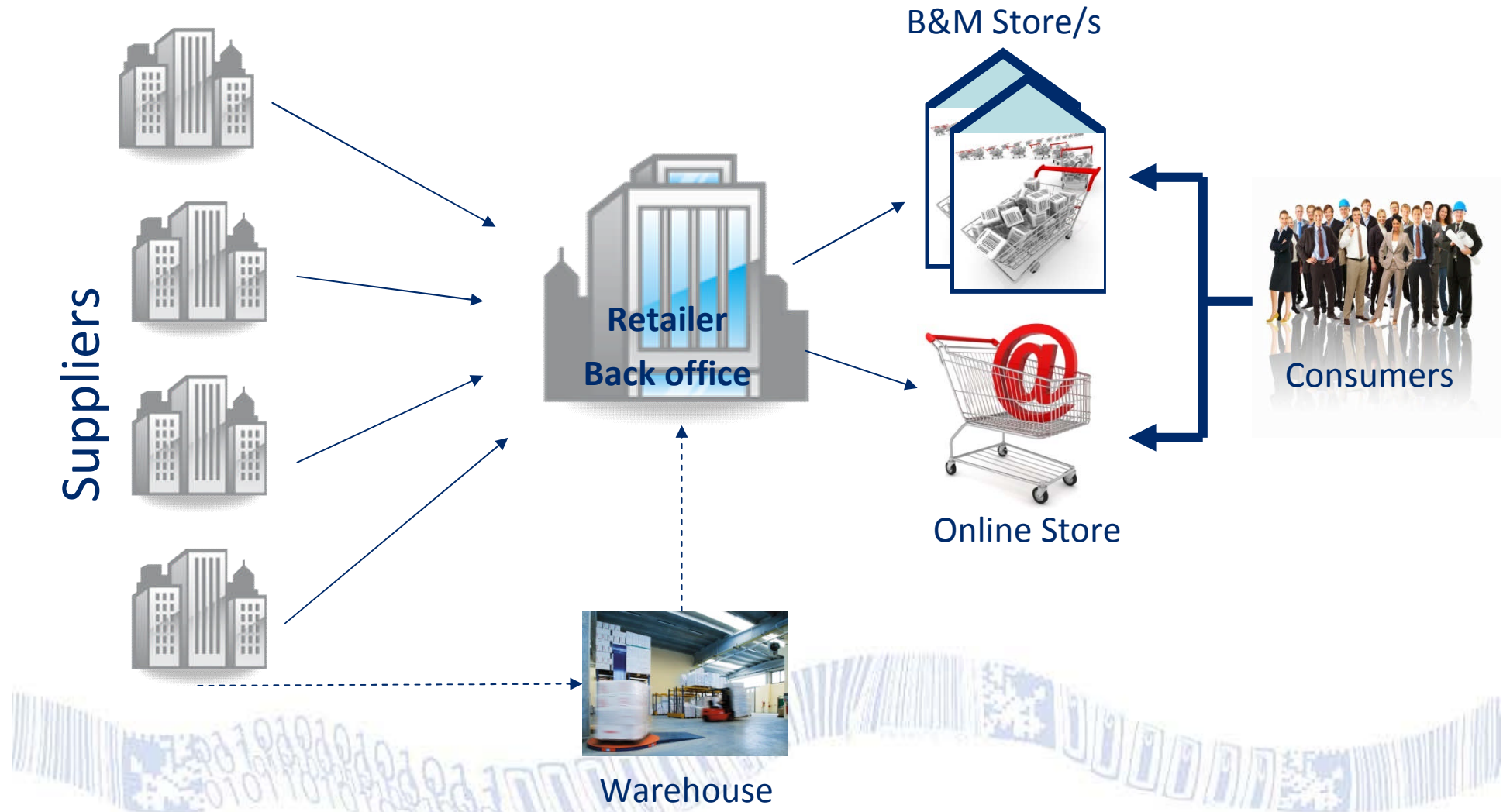




Distribution Channel



Multi-channel retail supply chain





Considerations

- Product identification
 - Unique
 - Unambiguous
 - Accurate
- Receipting
 - SSCC
 - Despatch Advice (ASN)
- Picking
- Packing
- Consumer level
- Carton level





Benefits of Barcode Scanning





Why Barcode?

- Improved operational efficiency
 - Fast
 - Accurate
 - Precise
- Save Time
 - 25 employees working over a weekend to take the inventory; with barcodes this reduced to 4 employees and a total of about 5 hours
 - A shipment of 10 cartons takes 2 minutes or more to write down product codes and serial numbers compared to about 10 to 20 seconds to scan the barcodes
- Reduce Errors
 - Human error rate for data entry – 1 in 300 characters
 - Error rate for barcoding – 1 in 36,000,000,000,000 characters
- Cut Costs



Why Barcode?

- Improved Inventory Accuracy
 - Less out of stocks = more sales
 - Minimise stock holdings
 - Maximise warehouse space
 - Optimise pick labour efficiency
 - Improve customer order fulfillment rates
 - Eliminate inventory discrepancies
 - Real time reporting



Which barcode?



Advantages of an open system



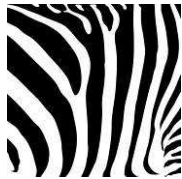
- Accesses all industry sectors
- Can expand with growth
- Communicates worldwide
- Easy to implement
- Cost-efficiencies
 - Hardware
 - Software
- Easier support



Basic Numbering Rules



- **Unique:** every variant of an item is allocated a separate unique sequential number



- **Non-significant:** they identify an item but contain no information about it



- **International:** GTINs are unique across all countries and all sectors



- **Secure:** GTINs are fixed length, numeric and include a standard Check Digit

GTIN-13



9312345 00 | 000 | 5

GS1 COMPANY PREFIX

The first **seven** or **nine** digits are allocated by GS1 Australia to the member company

ITEM REFERENCE

The next **five** or **three** digits are allocated to a specific product by the member company

CHECK DIGIT

Checks the validity of the entire number by a mathematical formula



Unique GTIN-13

For every different variant of a trade item a unique GTIN should be allocated.

Product 500ml

Product 1lt

Product 2lt

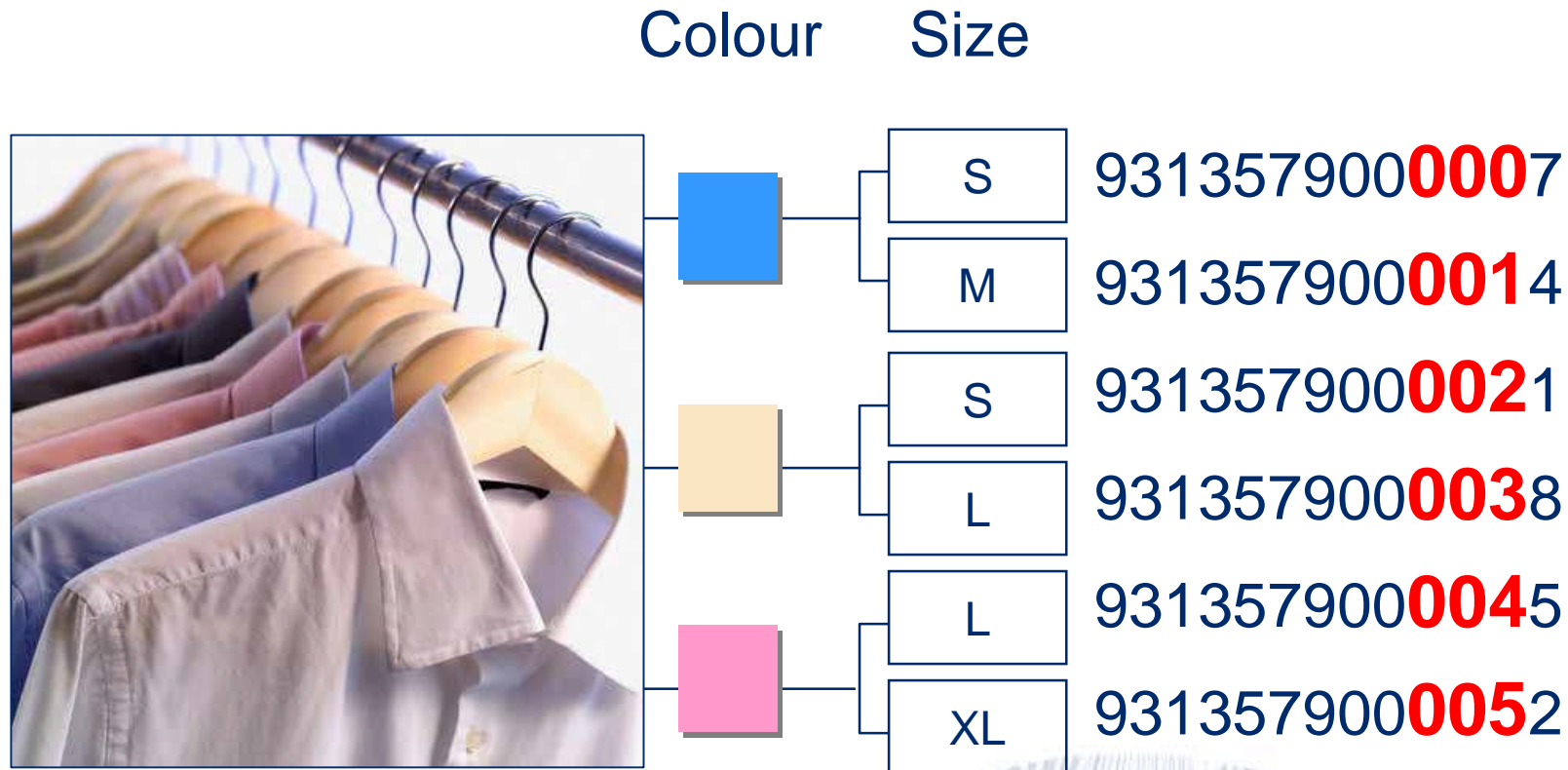


9312345000005

9312345000012

9312345000029

Identification to the lowest level



One trade item = one GTIN



9312345000005



9312540122113

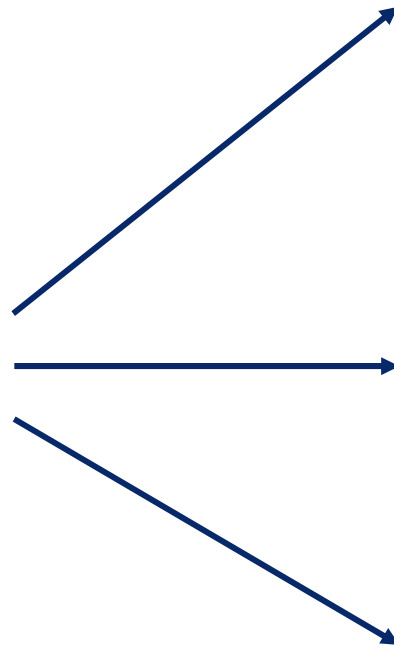


3325678952008

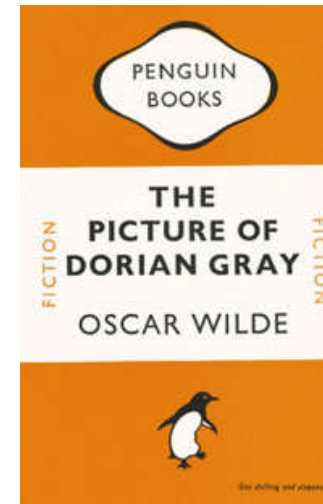


One GTIN = one trade item

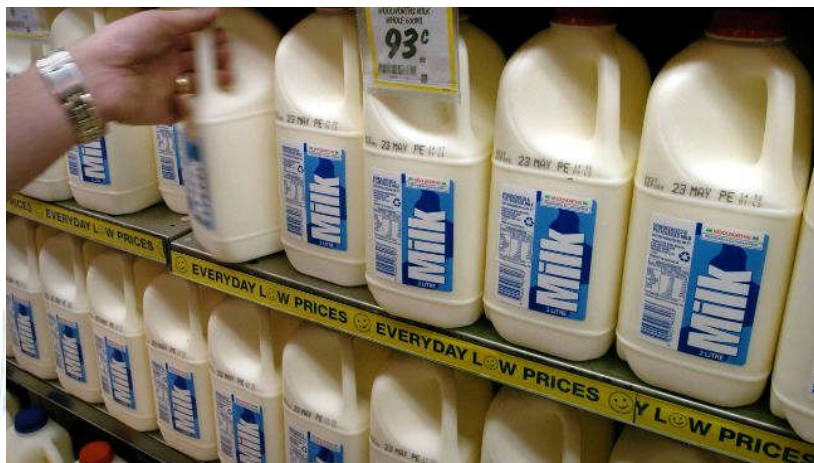
9312345000005



Brand Ownership



The *Brand Owner* allocates the GTINs



Bar codes scanned at Point-of-Sale



- Must be used for any retail trade items scanned at the Point-of- Sale
- Can be used throughout the entire supply chain



Non-retail trade item

Printed directly onto corrugate?

→ **ITF-14 Bar Code (Interleaved Two-of-Five)**



GTIN of the non-retail item:

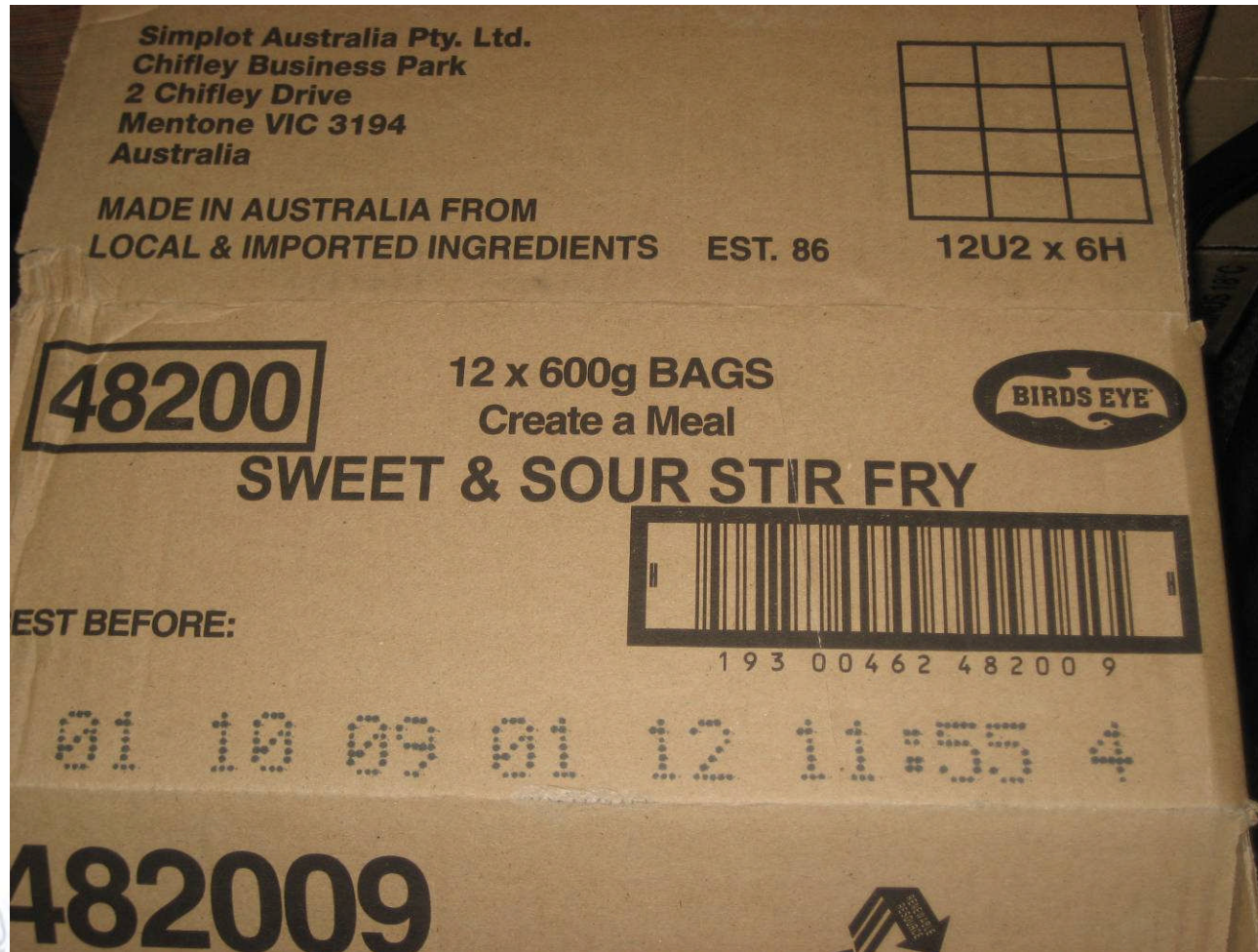
~ GTIN-14

or

~ GTIN-13 with a leading zero



Selecting the bar code for your non-retail trade item

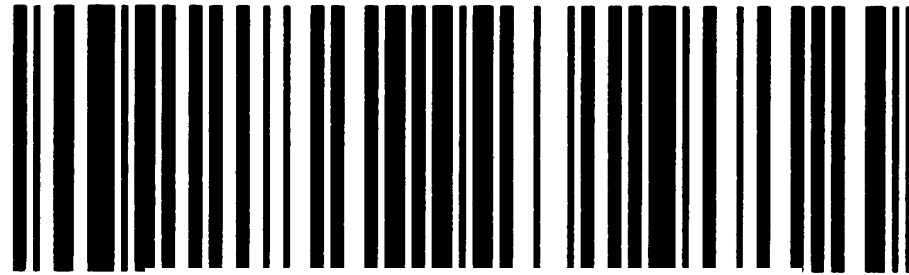




GS1 Application Identifiers

AI 01 = Global Trade Item Number

FORMAT = numeric fixed length 14 characters



(01)09312345678907

GS1-128 Bar Code

APPLICATION IDENTIFIER

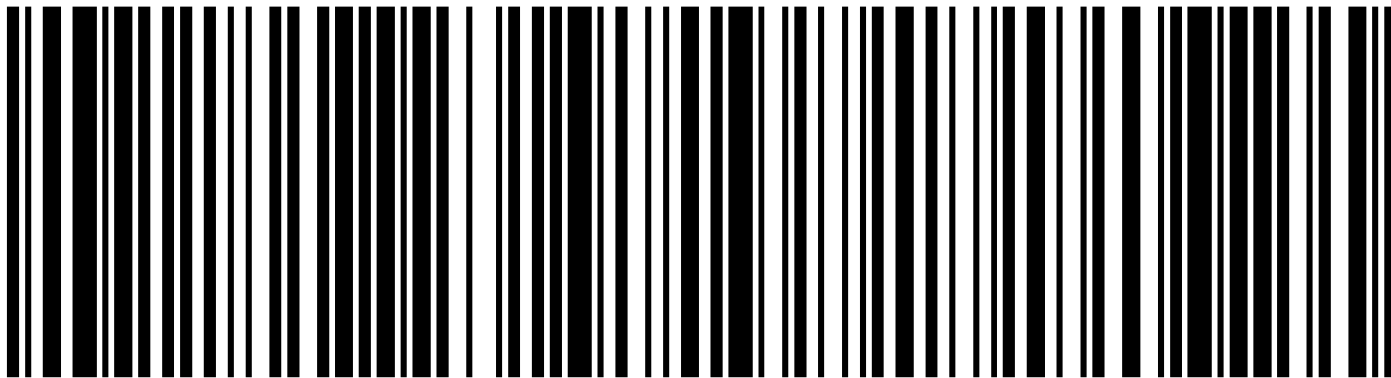
Prefix used to identify data following.
This AI identifies
GTIN

DATA

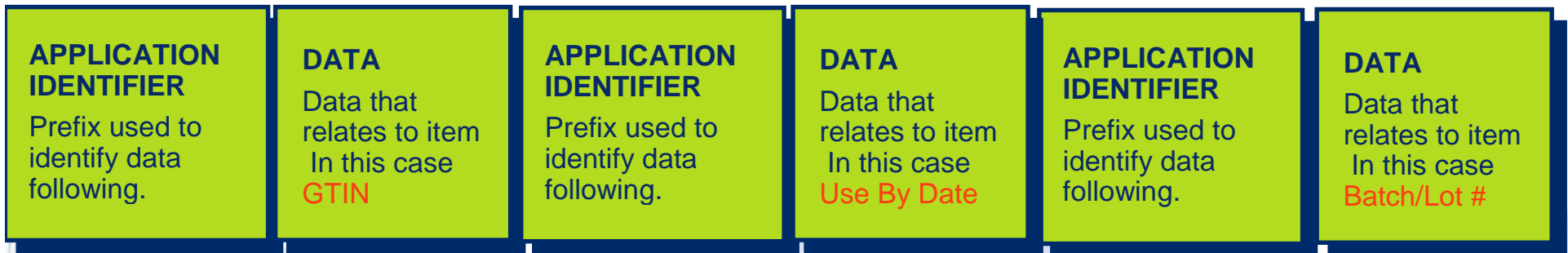
Data that relates to item
to which the information
is attached



Concatenated GS1-128



(01)09312345678907(17)070912(10)24BEE6





GS1 Logistics Label

FREE INFORMATION

Example : item description, details of company, to/from addresses etc..

SSCC 093123450000000012

COUNT : 40 boxes

CONTENT 19312345000149

USE BY 31 12 2007

BATCH : 12AB



(02)19312345000149(27)40(17)07123(10)12AB

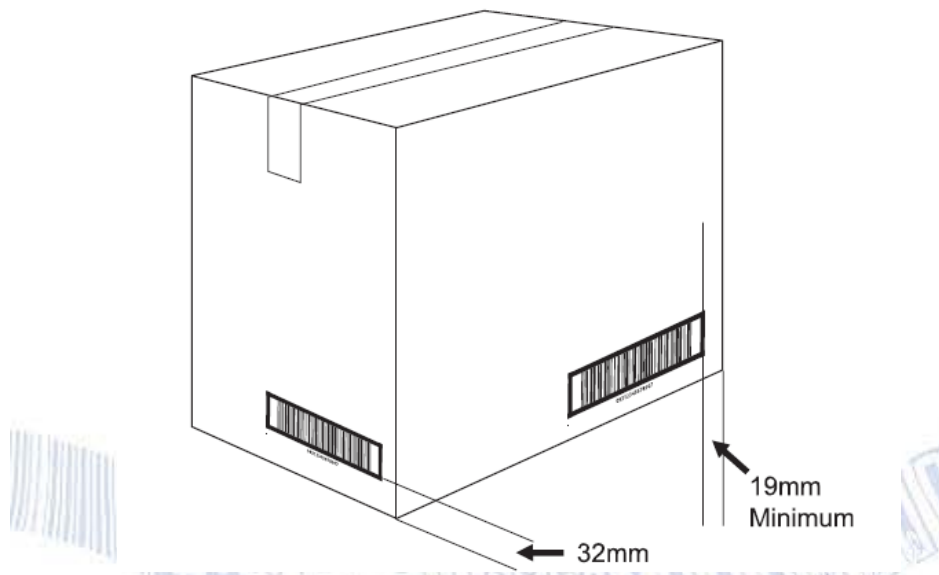
SSCC (P)

(00)093123450000000012

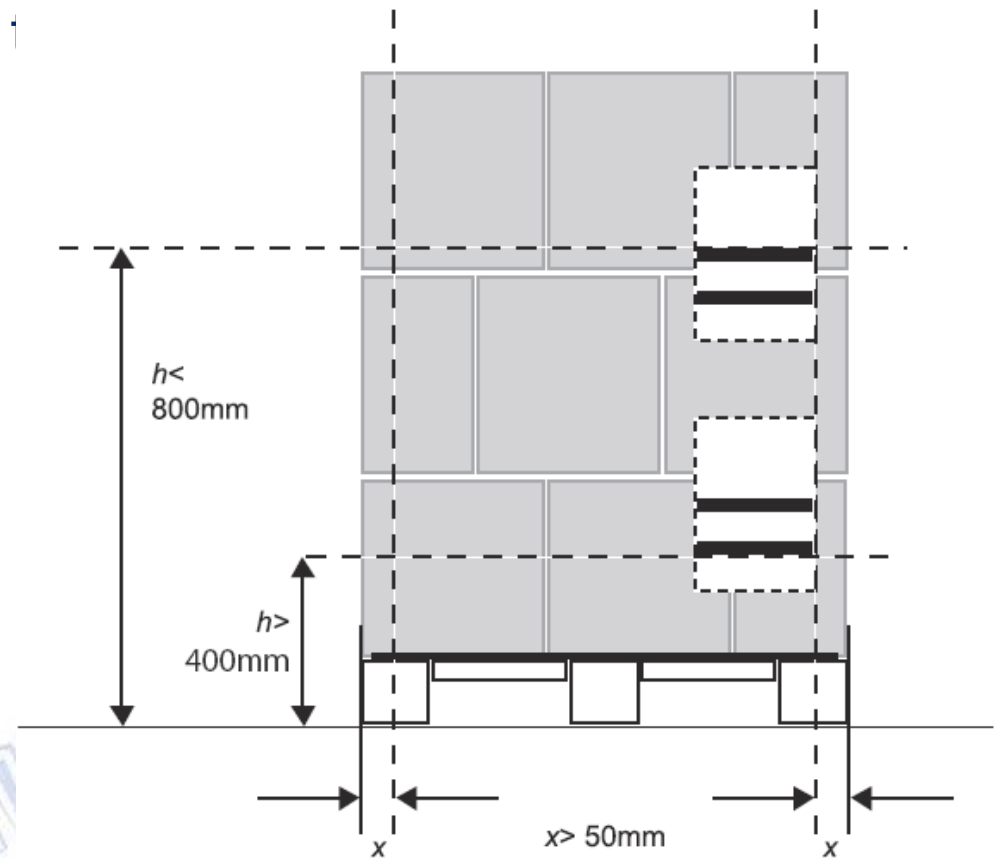
Location of the GS1 Logistics Label

It is recommended that a GS1 Logistics Label is situated on **two adjacent/opposite sides** of the item

CARTONS



PALLETS

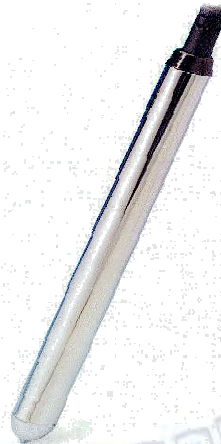




Reading barcodes?

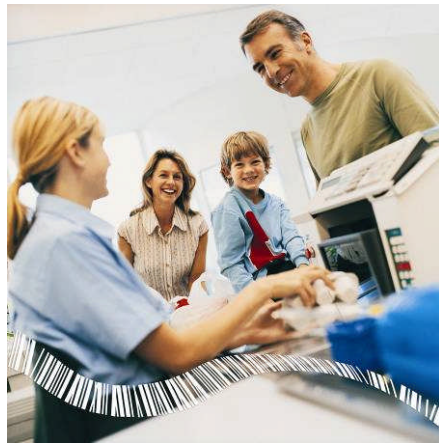
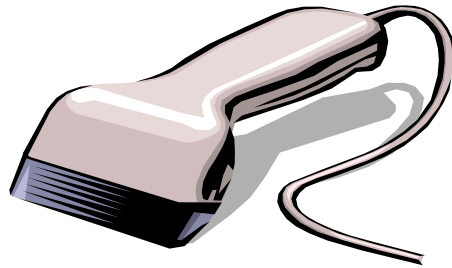


Reading bar codes



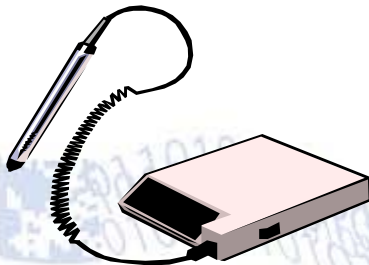


Reading bar codes



- The scanner decodes the bar code by moving across from one side to the other (left to right or right to left) and analyses the width pattern of bars and spaces.

- The decoded data can either:
 - Be transmitted directly to an attached computer via Automatic Data Capture (ADC) and optical readers
 - Be stored locally for later processing
 - Interact with other application computer systems





Where do I start?





Solution Providers

- Scanners
- Printers
 - Despatch labels
- Software
 - Inventory management
 - Sales
 - Electronic messaging

Solution Provider Directory

<http://www.gs1au.org/membership/spd/>





Contact Details

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