What I will to cover today

1) GS1 Identification Keys
   • GTIN & Attribute Data

2) GS1 Bar Codes
   • EAN/UPC, GS1-128, RSS & Composite, Data Matrix, …

3) GS1 eCom

4) Where to get more info
1) GS1’s Brand Architecture

The global language of business

OVERALL BENEFIT: Improving efficiency & visibility in supply and demand chains

GS1 SOLUTIONS & SERVICES USING GS1 STANDARDS
Solutions: POS / Inventory Management / Asset Management / Collaborative Planning / Traceability
Services: Global (GSMP, GEPIR, Global Registry, Training and Accreditation) & Local (e.g. Certification, Implementation, Training)

GS1 System - Integrated system of standards

GS1 BarCodes
Global standards for automatic identification
Rapid and accurate, item, asset or location identification

GS1 eCom
Global standards for electronic business messaging
Rapid, efficient & accurate business data exchange

GS1 GDSN
The environment for global data synchronisation
Standardised, reliable data for effective business transactions

EPCglobal
Global standards for RFID-based identification
More accurate, immediate and cost-effective visibility of information

GS1 Identification Keys (e.g. GTIN, GLN, SCC, GRAI, GIAI, GSRN, EPC) & Attribute Data (e.g. Best Before Date)
GS1 Identification Keys provide access computer files
GS1 Identification Keys are:

- **Unique**: every variant of an item is allocated a separate unique number
- **Non-significant**: they identify an item but contain no information about it
- **International**: GS1 identification keys are unique across all countries and all sectors
- **Secure**: GS1 identification keys are fixed length, numeric and include a standard check digit
GTIN: The GS1 Identification Key for:

- Any item (product or service) upon which there is a need to retrieve pre-defined information and that may be priced or ordered or invoiced at any point in the supply chain

**GTIN-13 data structure:**

<table>
<thead>
<tr>
<th>GS1 Company Prefix</th>
<th>Item reference</th>
<th>Check Digit</th>
</tr>
</thead>
<tbody>
<tr>
<td>N₁ N₂ N₃ N₄ N₅ N₆ N₇ N₈ N₉ N₁₀ N₁₁ N₁₂</td>
<td></td>
<td>N₁₃</td>
</tr>
</tbody>
</table>
GTIN Allocation Rules for Healthcare

• We took this...

DIFFERENT QUANTITIES / Perforated Blister/GTIN on Each Blister Cell

Type of Change to Trade Item
Grouping of the same item containing different quantities
Example: A single item—loose syringe, a multi-pack of 3 blister syringes, and also a 5 blister syringes.

GTIN for Standard Trade Item Grouping
(Picture of case with New GTIN bug)
GTIN Allocation Rules for Healthcare

• .... and turned it into this:
GTIN Allocation Rules for Healthcare

- Provides
  - A Simple and easy to use worldwide guideline

- GTIN also enables the addition of Attribute Data like:
  - Batch Number
  - Expiration Date
  - Serial Number

How?

Using GS1 Application Identifiers
What is a GS1 Application Identifier (AI)?

- AIs are prefixes defining data field(s) that follow and indicate their format.
- Example: AI (21) means "serial number" with a alphanumeric format, variable length up to twenty characters $an..20$

21  AS4562T95
    |     |   Serial number
    |     | Application Identifier
GTIN 分配规则

全球贸易项目代码，GTIN (Global Trade Item Number) 为每一交易产品（如在产品定价、定购、开发票等业务过程中）提供全球供应链标识代码解决方案。

GTIN 是许多公司关键性业务（如POS扫描系统以及GSN）的基础。采用相同的分配规则，会降低整个供应链成本。

本站点列出了涉及GTIN代码变化的常见的产品变更。

如需更多信息，请与 中国物品编码中心 (GS1 China) 联系。

View the GTIN Allocation Rules Overview

注：所述目的是为了全球通用。当地地方法律法规有其他强制要求时例外。

下载 GTIN 修易手册
2) GS1’s Brand Architecture

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GS1 Identification Keys (e.g. GTIN, GLN, SCC, GRAI, GIAI, GSRN, EPC) & Attribute Data (e.g. Best Before Date)
The only GS1 Bar Code your boss needs to know

- GS1 Bar Codes change lives for the better
  - Contribute to improved Patient Safety
  - Help Deliver Logistics Efficiency
  - Enable Traceability & Authentication systems
GS1 Bar Codes

Global standards for automatic identification
Rapid and accurate item, asset or location identification

**EAN/UPC** – GTIN only *(main usage Retail Items)*

**ITF-14** – GTIN only *(main usage Outer Cases)*
GS1 Bar Codes cont.

**GS1-128** – GTIN and all GS1 Application Identifiers

**RSS & Composite** – GTIN and all GS1 Application Identifiers

**Data Matrix** – GTIN and all GS1 Application Identifiers

You may ask - In Healthcare which Bar Code Symbol, with what data, where & why?
Provide a uniform and global approach to Standards Management.

Methodology for developing the next generation of supply chain standards

- Standards based on global consensus
- Responsive and USER-DRIVEN

ONLY methodology for maintaining the GS1 System Standards.
Global standards for automatic identification
Rapid and accurate item identification

Example GS1-128 Bar Code:
More information on GS1 Bar Codes?

www.gs1.org
~ for your local MO ~

The global language of business

GS1 BarCodes
- Overview
- Technical
- Implementation
- Support
- Training

GS1 BarCodes and ID Keys

The BarCodes and GS1 Identification System have provided benefits to consumers around the world for over thirty years.

This area of our Web site explores how they have changed our world for the better, and how the application of GS1 BarCode
3) GS1’s Brand Architecture

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Rapid, efficient & accurate business data exchange
Standardised, reliable data for effective business transactions
More accurate, immediate and cost-effective visibility of information

GS1 Identification Keys (e.g. GTIN, GLN, SSCC, GRAD, GIAI, GSRN, EPC) & Attribute Data (e.g. Best Before Date)
eCom – Automating the Information Flow

Purchaser

Contract information

Call-off

Order response

Despatch advice

Shipment (transport label)

Invoice

Supplier/Retailer

Party information

Contract

Customer reg

Article reg

Order system

Delivery control system

Accounts receivable ledger

Accounts payable ledger

Goods received

Call offs

Article reg

Supplier reg

Contract
<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>EANCOM</th>
<th>GS1 XML</th>
<th>WEB EDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries</td>
<td>54</td>
<td>42</td>
<td>33</td>
<td>21</td>
</tr>
<tr>
<td>Users</td>
<td>100.000</td>
<td>70.000</td>
<td>15.000</td>
<td>18.000</td>
</tr>
<tr>
<td>Message implemented</td>
<td>43 (4)</td>
<td>54 (15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(not implemented)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth</td>
<td>10% per Year</td>
<td>GDSN + Regionally B2B + UIM</td>
<td>20% per Year</td>
<td></td>
</tr>
</tbody>
</table>

+ 20 %
## Value of eCom Transaction by Industry*

<table>
<thead>
<tr>
<th>Industry</th>
<th>Billions of Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemicals</td>
<td>$63</td>
</tr>
<tr>
<td>Consumer Goods</td>
<td>$302</td>
</tr>
<tr>
<td>Electronics</td>
<td>$90</td>
</tr>
<tr>
<td>Food &amp; Beverage</td>
<td>$396</td>
</tr>
<tr>
<td>Healthcare</td>
<td>$432</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>$690</td>
</tr>
<tr>
<td>Metals &amp; Natural Resources</td>
<td>$433</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>$179</td>
</tr>
<tr>
<td>Retail &amp; Distribution</td>
<td>$376</td>
</tr>
<tr>
<td>Transportation</td>
<td>$312</td>
</tr>
<tr>
<td>Utilities</td>
<td>$168</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,443</strong></td>
</tr>
</tbody>
</table>

* Source: Forrester 2001
### Case Study GS1 France
**Most implemented eCom messages**

<table>
<thead>
<tr>
<th></th>
<th>EDI</th>
<th>Web-EDI</th>
<th>EDI and/or Web-EDI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2005 / 2004</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Purchase Order</strong></td>
<td>78%</td>
<td>94%</td>
<td>87%</td>
</tr>
<tr>
<td><strong>Despatch Advice</strong></td>
<td>48%</td>
<td>60%</td>
<td>55%</td>
</tr>
<tr>
<td><strong>Invoice</strong></td>
<td>47%</td>
<td>45%</td>
<td>46%</td>
</tr>
<tr>
<td><strong>Product Data</strong></td>
<td>14%</td>
<td>7%</td>
<td>10%</td>
</tr>
</tbody>
</table>

**Comparison:**
- **Purchase Order:** +54%
- **Despatch Advice:** +250%
- **Invoice:** +34%
- **Product Data:** +250%
Implementation

The following resources are available to help you implement EANCOM.

  To receive the User Manual, please contact your local GS1 Member Organisation
- Digital Signatures for EANCOM messages
- Electronic Business in the GS1 Community in 2004
- How to submit an EANCOM Change Request

Updates to EANCOM 2002

In the EANCOM 2002, many updates have been made to the User Manual. To help you to navigate through these changes a series of short documents have been provided as supplementary information to the manual. They are intended to ease any migration issues that may arise when changing from EANCOM 97 (based on UN/EDIFACT D.96A) to EANCOM 2002 (based on UN/EDIFACT D.01B).

- Additional documents
104 Member Organisations.  
145 Countries served.  
Local services, global reach.
The Evolution of GS1

GS1 is now a single global organization with offices in over 100 countries.

At GS1, we see one vision, speak with one voice, act as one organisation.

Our strength is our single face to the outside world.
If you only remember one thing from today?

www.gs1.org

The global language of business

GS1 is a leading global organisation dedicated to the design and implementation of global standards and solutions to improve efficiency and visibility in supply and demand chains globally and across sectors.

GTIN & GLN Allocation Rules in French and Italian

7 September 2006: Created in response to user demand, these new language versions of the GTIN and GLN Allocation Rules make the GS1 standards directly accessible to a wider audience. The web platform ensures consistency in global support and now includes links to the recently updated Global Electronic Party Information Registry (GEPIR) service.

- View the GTIN Allocation Rules website in French
- View the GTIN Allocation Rules website in Italian

QUICK LINKS

Use the following links to find out more about GS1's products and services:

- GS1 BarCodes
- Check Digit Calculator
- GTIN Rules
- GLN Rules
- Support
- Training & Education
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