



Defining Today's  
Technology Standards;  
Empowering Tomorrow's  
Solutions.

# Pharma, Medical Device and Foodservice RFID Labels Using GS1's Tag Data Standard 2.0 and Their New Guidelines

17 October, 2023

---

**Chris Brown, TSC Printronix Auto ID**



# Meet the Speaker



Chris Brown  
TSC Printronix Auto ID

Copyright © 2023 AIM, Inc. All rights reserved.

The views expressed/presented are that of the individual speaker and do not necessarily represent the views of the speakers' respective company or AIM.



# GS1's TDS 2.0 for Healthcare and Foodservice

## Background

- The issue of “Tag Clutter”
  - Tags from one application interfering with another application
  - Too many tags in a read-zone to process in allotted time
  - Tags must be encoded per a standard to avoid Tag Clutter

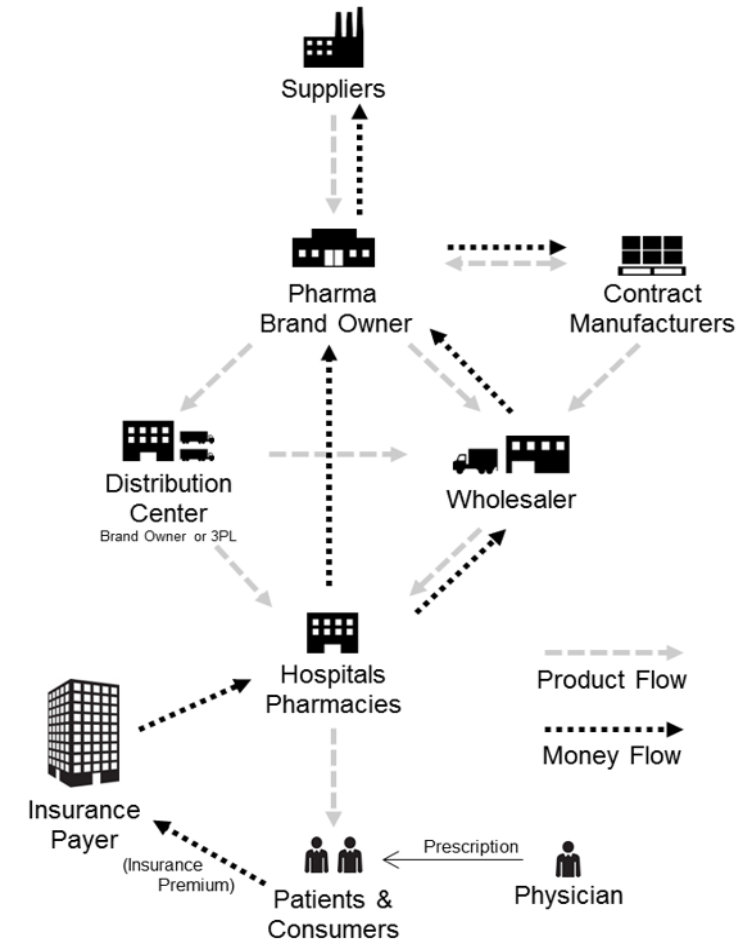




# GS1's TDS 2.0 for Healthcare and Foodservice

## Background (cont.)

- The issue of interoperability, “decodability”
  - Multiple trading partners
  - Regulatory authorities
  - Tags must be encoded per a standard to support interoperability



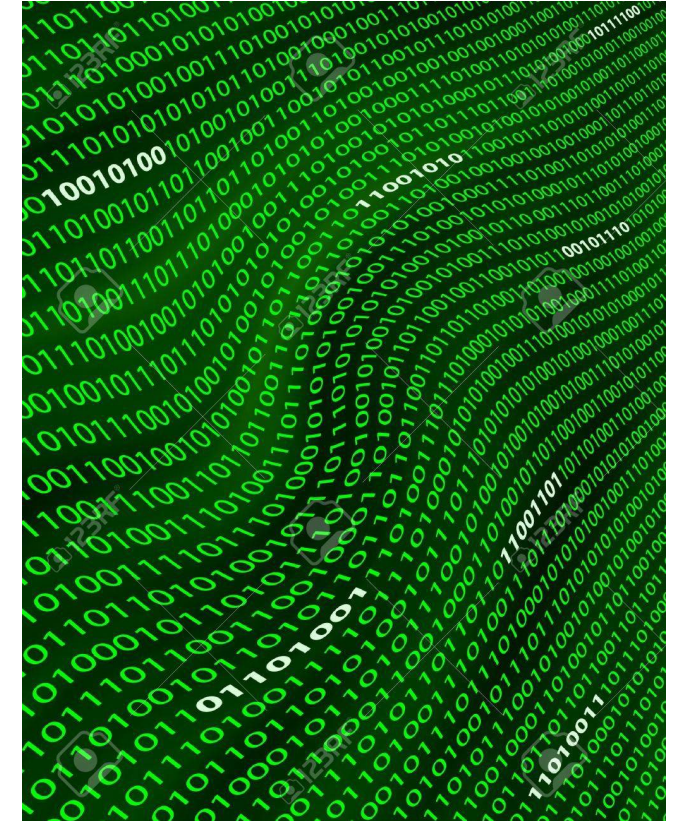
Source SAP AG



# GS1's TDS 2.0 for Healthcare and Foodservice

## Background (cont.)

- The issue of “efficient encodings”
  - Fewer bits = cheaper chips / tags
  - Fewer bits = faster reads
  - Fewer bits = fewer over-air errors
  - Key item attributes “on-tag” (versus in database)
  - Encodings must be technically efficient yet support sufficient item attributes “on-tag”





# GS1's TDS 2.0 for Healthcare and Foodservice

## Background (cont.)

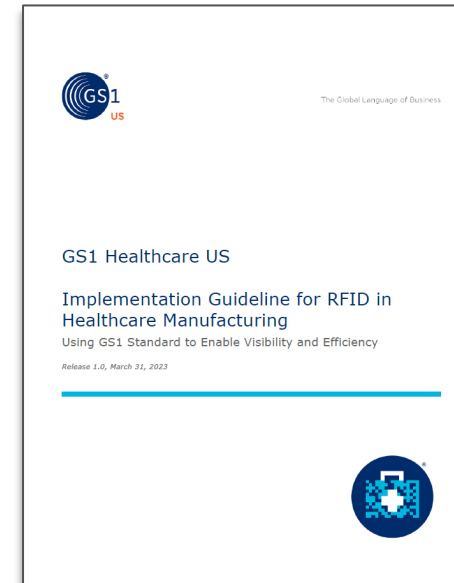
- AIM, GS1 and RAIN meetings with Healthcare, Foodservice and regulatory authorities
  - Application requirements clarified and agreed upon
  - Key item attributes “on-tag”
- Regulatory authorities
  - No RFID requirements yet – but not opposed
  - **I am not speaking to specific regulations or requirements**
    - FSMA 204 (USA): food traceability “one up and one down”
    - DSCSA (USA)



# GS1's TDS 2.0 for Healthcare and Foodservice

## Background (cont.)

- GS1 **US** publishes two new guidelines
  - “Implementation Guideline for RFID in Healthcare Manufacturing”
  - “GS1 US RFID Foodservice Implementation Guideline”





# GS1's TDS 2.0 for Healthcare and Foodservice

## Healthcare – Pharma Products

- Key item attributes
  - Manufacturer
  - Item / product
  - Unique serial number
  - Batch / Lot number
  - Date value (manufacture, expiration, best before, etc.)



- NDC code
- Expiration date
- Lot number
- Serial number

Source Fresenius Kabi

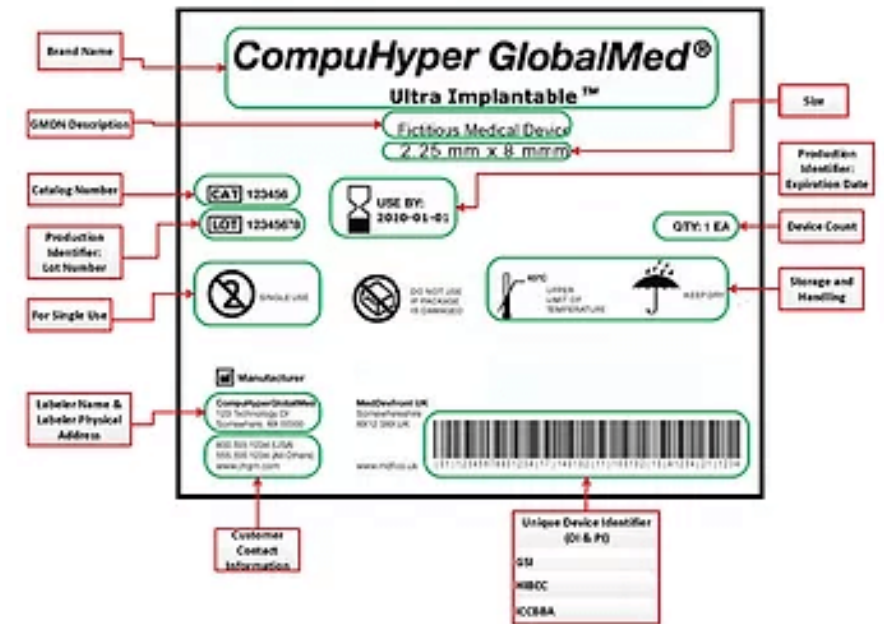




# GS1's TDS 2.0 for Healthcare and Foodservice

## Healthcare – Medical Device

- Key item attributes
  - Manufacturer
  - Item / product
  - Unique serial number
  - Batch / Lot number
  - Date value (manufacture required in USA, expiration, best before, etc.)



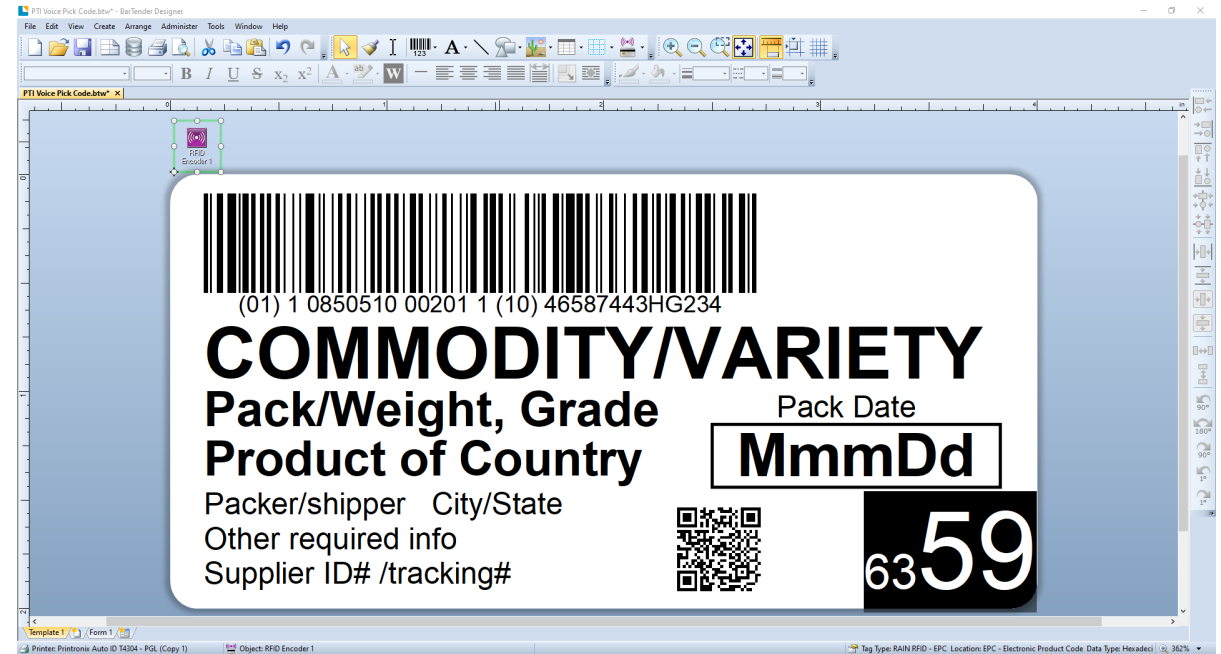
Source Xerafy



# GS1's TDS 2.0 for Healthcare and Foodservice

## Foodservice

- Key item attributes
  - Manufacturer
  - Item / product
  - Unique serial number
  - Batch / Lot number
  - Date value (expiration, best before, production, etc.)



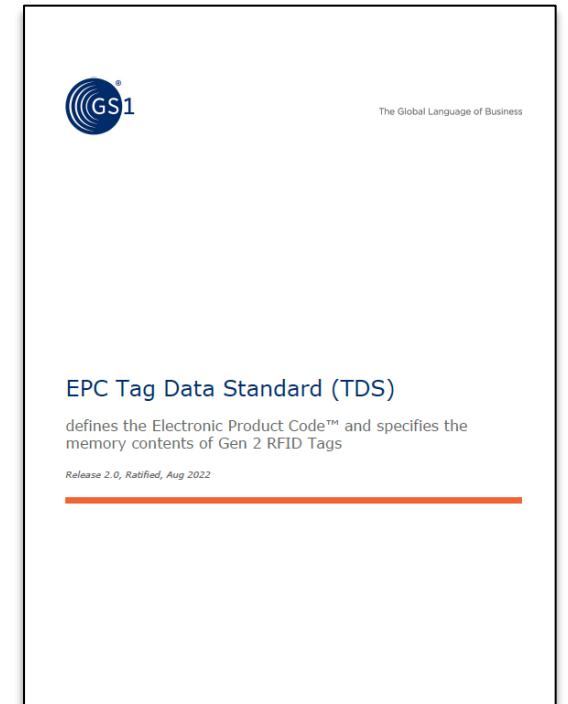
“PTI” Case Label in BarTender Label Software



# GS1's TDS 2.0 for Healthcare and Foodservice

## GS1 TDS 2.0

- Multiple new “Encoding Schemes”
  - SGTIN+, DSGTIN+, etc.
    - GTIN gives manufacturer, item / product
    - S gives serial number
    - + gives additional item attributes (batch / lot number, date, etc.)
    - D means date value required and “prioritized”





# GS1's TDS 2.0 for Healthcare and Foodservice

## GS1 TDS 2.0 for Healthcare

- Pharma and Med Device
- “Implementation Guideline for RFID in Healthcare Manufacturing”
  - SGTIN+
    - GTIN gives manufacturer, item / product
    - S gives serial number
    - + gives additional item attributes (batch / lot number, date, etc.)





# GS1's TDS 2.0 for Healthcare and Foodservice

## GS1 TDS 2.0 for Foodservice

- “GS1 US RFID Foodservice Implementation Guideline”
  - DSGTIN+
    - GTIN gives manufacturer, item / product
    - S gives serial number
    - + gives additional item attributes (batch / lot number, etc.)
    - D for prioritized date value



# Questions & Comments





# Contact us

**Chris Brown**



EMEA, Asia, Americas

[cbrown@tscus.com](mailto:cbrown@tscus.com)

[www.tscprinters.com](http://www.tscprinters.com)

+1 612 615 5552



100 Allegheny Drive, Suite 105C  
Warrendale, PA 15086 USA

[info@aimglobal.org](mailto:info@aimglobal.org)

[www.aimglobal.org](http://www.aimglobal.org)

+1.724.742.4470



Defining Today's  
Technology Standards;  
Empowering Tomorrow's  
Solutions.

**THANK YOU!**

---

