Enabling Source-to-Consumer Visibility with GS1 Standards in APPAREL & GENERAL MERCHANDISE
Together, we’re making it possible for apparel and general merchandise companies to follow their products from the source to the consumer—ensuring that the right product is in the right place at the right time regardless of the channel or path to purchase.
Challenges Facing the Industry Today

IMPROVING INVENTORY ACCURACY AND SUPPLY CHAIN VISIBILITY

In today’s omni-channel retail world, consumers are in control. They expect accurate, immediate product information and access to products. They will move on if they can’t find the products they want when they want them. The apparel and general merchandise industries are most concerned with improving inventory accuracy and supply chain visibility capabilities to satisfy consumer demands, while still addressing expectations around product safety.

Developing omni-channel fulfillment capabilities is another area of focus for brands and retailers looking to further streamline their business processes from sourcing products to getting them in the hands of consumers everywhere.

“Current barcode technology prevents retailers from frequent inventory counts. Our experience at Macy’s is that item-file accuracy deteriorates 2-3 percent per month.

RFID technology is approximately 20 times faster than counting with barcodes, enabling frequent inventory counts and significant improvement in inventory accuracy.

RFID is the next big supply chain transformation for the retail industry—it’s time has come.”

Tom Cole, Chief Administrative Officer, Macy’s, Inc.
NRF – Retail’s Big Show, January 16, 2012
GS1 STANDARDS IN APPAREL/GENERAL MERCHANDISE

Moving Forward Together with the GS1 US Apparel and General Merchandise Initiative

The GS1 US Apparel and General Merchandise Initiative is an industry group that is committed to defining business challenges and opportunities and organizing members to explore solutions and create adoption plans. The members of our initiative represent a broad cross-section of industry trading partners, each of whom has agreed to adopt and implement global GS1 Standards to improve inventory accuracy and supply chain visibility.

KEY FOCUS AREAS

- Location identification using GS1 Global Location Numbers (GLNs)
- Product identification using GS1 Global Trade Item Numbers (GTINs)
- Identification of logistic units using GS1 Serial Shipping Container Codes (SSCCs)
- Encoding GS1 Standard identifiers into RFID tags with Electronic Product Codes (EPCs)
- Sharing product descriptions through the Global Data Synchronization Network™ (GDSN®)
- Sharing physical event information and status with Electronic Product Code Information Services (EPCIS)

Get involved! Go to www.gs1us.org/apparelgm

KEY BENEFITS

- Increasing inventory accuracy
- Enhancing shipping accuracy and confidence
- Creating and sharing accurate, standardized product data
- Building better trading-partner and customer relationships
- Improving speed-to-market

INDUSTRY DRIVERS

- Omni-Channel Fulfillment
- Source-to-Consumer Visibility
- Product Safety and Regulatory Compliance

COMMUNITY WORKGROUPS

- Floor-Ready Merchandise
- Product Images & Data Attributes
- Item Level RFID
- Logistics
- CPFR

- Collaborative Planning, Forecasting, and Replenishment (CPFR®) Training
- EPC-Enabled Item Level RFID Readiness Program
- GS1 Standards (Identify, Capture, Share)
GS1 Standards for identifying, capturing, and sharing information—about products, business locations, and more—make it possible for companies to speak the same language, connect with each other, and move their business forward.
GS1 Standards begin with GS1 Identification Numbers used to uniquely distinguish all products (trade items), logistic units, locations, assets, and relationships across the supply chain from manufacturer to consumer.

These numbers provide the link between the item and the information pertaining to it.
GS1 Data Carriers are capable of holding varying amounts of data to accommodate different needs such as Batch/Lot information and expiration dates.

EAN®/U.P.C. and GS1 DataBar® barcodes are examples of barcodes scanned at retail point of sale. ITF-14 and GS1-128 barcodes are used to uniquely identify units of product at the case and pallet level to help manage fast and accurate tracking of inventory. The EPC (Electronic Product Code) encodes GS1 Identification Numbers like GTINs, GLNs, and SSCCs, and allows them to be carried on RFID tags.

The data encoded in GS1 Data Carriers uniquely identifies products (and units of product) and improves inventory accuracy.

**CAPTURE GS1 DATA CARRIERS**

**ITEM**

**EAN/UPC**
Carries a Global Trade Item Number (GTIN)

**OR**

**EPC-ENABLED RFID**
Carries a Serialized GTIN (SGTIN)

**UHF RFID**
Radio Frequency Identification (RFID) tags are read quickly and easily without requiring line of sight and carry data that can be added to or modified as the tagged item moves.

**HUMAN READABLE SGTIN**
061414198765314157
**CASE**

**ITF-14**
Carries a GTIN

Used to uniquely identify bulk units such as cartons, cases, or pallets, and help manage fast and accurate tracking of inventory. This barcode only encodes a GTIN and is not intended to pass through retail point of sale.

**OR**

**GS1-128**
Carries a GTIN or a Serial Shipping Container Code (SSCC)

SSCC in a GS1-128 barcode enables quick and accurate receipt of product.

**OR**

**EPC-ENABLED RFID**
Carries an SGTIN or SSCC

**PALLET**

**ITF-14**
Carries a GTIN

**OR**

**GS1-128**
Carries a GTIN or an SSCC

**OR**

**EPC-ENABLED RFID**
Carries an SGTIN or SSCC
MASTER DATA

GDSN
Global Data Synchronization Network

The GDSN connects trading partners to the GS1 Global Registry via GS1-certified data pools, enabling the immediate electronic sharing of standardized, up-to-date, accurate information.

WHAT GOES INTO IT

GTINs
GLNs of Brand Owner
Product Descriptions
Product Classification

WHAT GOES INTO IT

EDI DOCUMENT TYPES

Purchase Order
Advance Ship Notice
Invoice
Payment

GS1 STANDARDS IN APPAREL/GENERAL MERCHANDISE

TRANSACTIONAL DATA

EDI
Electronic Data Interchange

EDI enables the computer-to-computer exchange of business documents between companies using a standardized format.

PHYSICAL EVENT DATA

EPCIS
Electronic Product Code Information Services

EPCIS is the standard for sharing information about the movement and status of goods in the physical world.

WHAT GOES INTO IT

GTIN
GLN
SSCC

WHAT GOES INTO IT

What
SGTIN
Where
SGLN
When
Date & Time Stamp
Why
Business Setup & Product Disposition

INTEROPERABILITY

PRODUCT DATA
REQUEST FOR QUOTATION
PRICE AND PROMOTION DATA
PURCHASE ORDER
PLANNING SCHEDULE
ADVANCE SHIP NOTICE
INVOICE
PRODUCT RECALL/WITHDRAWAL
Across the supply chain, trading partners are connecting with each other and leveraging the power of information by using GS1 Standards as the foundation of their business processes.
IDENTIFY

- Company GLNs are assigned and managed for field/raw material/processing plants
- GTINs are assigned to pre-production raw materials and items, SSCCs are assigned to cases

CAPTURE

- Barcodes or EPCs are matched to the field to validate location
- Barcode or EPC technology is used to capture inventory of raw material

SHARE

- The GDSN is used to exchange product information
- EDI is used for transactional data
- EPCIS is used to exchange physical event data

Source Material Supplier

Enables materials to be traced back to their point of origin
Allows raw materials to be traced to their point of origin
Enables product to be traced to the manufacturing line
**IDENTIFY**
- GTIN or SGTIN is assigned to the finished product
- GTIN or SSCC is assigned to the case

**CAPTURE**
- Barcodes or EPCs are used to capture inventory of finished products
- Barcodes or EPCs are used to validate pack-out quantities

**SHARE**
- The GDSN is used to exchange product information
- EDI is used for transactional data
- EPCIS is used to exchange physical event data

**BENEFITS**
- Decreases shipping and receiving costs
- Reduces errors and lowers labor costs
- Results in fewer deductions and chargebacks
- Decreases return costs
- Provides better information flow to trading partners
- Enables work-in-progress monitoring
Transportation, Logistics, and Customs

**CAPTURE**
- Barcodes or EPCs are scanned to ensure accuracy of products in cases/pallets
- EPC physical events (arrival/departure scans) are captured

**SHARE**
- The GDSN is used to exchange product information
- EDI is used for transactional data
- EPCIS is used to exchange physical event data

**BENEFITS**
- Speeds up and improves customs clearance
- Results in labor/expense savings for both customs agencies and businesses
- Allows for easier identification and understanding of risks
Supplier Distribution

**IDENTIFY**
- SSCC is assigned to case/pallet after pick/pack process

**CAPTURE**
- Barcodes or EPCs are scanned to ensure accuracy of products in cases/pallets
- SSCC is encoded into GS1-128 or EPC on case/pallet

**SHARE**
- The GDSN is used to exchange product information
- EDI is used for transactional data such as Advance Ship Notice (ASN) and is sent to retail distribution center
- EPCIS is used to exchange physical event data

**BENEFITS**
- Tracks and validates shipping processes, reducing counterfeits and ensuring brand protection
- Provides accurate, automatic inventory counts
- Increases audit capability (visibility into case contents)
- Validates receipt of goods (electronic proof of delivery)
IDENTIFY
• SSCC is assigned to case/pallet after pick/pack process

CAPTURE
• Barcodes or EPCs are scanned to ensure accuracy of products in cases/pallets
• SSCC is encoded into GS1-128 or EPC on case/pallet

SHARE
• The GDSN is used to exchange product information
• EDI is used for transactional data such as ASN or payment information
• EPCIS is used to exchange physical event data

BENEFITS
Implements inventory labor productivity by 96%
Reduces cycle count time by 96%
Lowers inventory risks and costs
Enables electronic proof of delivery
• Barcodes or EPCs are scanned to ensure accuracy of products in cases/pallets
• EPC is scanned at Point of Sale (POS)
• EPC is scanned for Electronic Article Surveillance (EAS)

SHARE
• EDI is used for transactional data such as sales activity or inventory reporting
• EPCIS is used to exchange physical event data

Retail Store

BENEFITS

Reduces time to locate products by 18%
Raises inventory accuracy from 63% to 95%
Cuts out-of-stocks by 50%
Increases inventory count rates from 200 to over 12,000 items per hour
GS1 STANDARDS IN APPAREL/GENERAL MERCHANDISE

Join one of the GS1 US Apparel and General Merchandise Initiative Workgroups

Become part of our targeted workgroups in the GS1 US Apparel and General Merchandise Initiative. The workgroups are made up of industry stakeholders, to develop standards-based guidelines, best practices, case studies, thought leadership, and alignment on future opportunities for unlocking further value from the use of GS1 Standards.

• Product Images and Data Attributes
• Collaborative Planning, Forecasting, and Replenishment (CPFR)
• Item Level RFID
• Floor-Ready Merchandise
• Logistics

Sign up for the GS1 US EPC Item Level Readiness Program

The Item Level Readiness Program provides the education, training, tools, and community support that the apparel and general merchandise industries need to implement EPC-enabled item level tagging into day-to-day operations. It allows businesses to leverage their existing technology investments such as ERP, inventory management, point of sale, and other enterprise systems, which translates to a more cost-effective deployment with less risk and a shorter return on investment.

JOIN TODAY BY EMAILING:
apparelgm@gs1us.org

START IMPLEMENTING

Visit www.gs1us.org/apparelgm to access:
• Information on relevant GS1 Standards
• Workgroups
• Tools and Resources
  - Implementation Guidelines
  - White Papers and Case Studies
• Education and Webinars
• Members, Advocates, and Partners

Now is the time to get involved!