

PTI Best Practice for GS1 Global Trade Item Number (GTIN) Assignment

*Official PTI Webinar
September 14, 2011*



Moderator

Angela Fernandez

- Senior Director, Industry Engagement
at GS1 US



PTI milestones and target dates

1: Obtain a Company Prefix from GS1	2009	GS1 Standard
2: Assign GTINs to Cases	2009	GS1 Standard
3: Provide GTIN Information to Buyers	2009	
4: Show Human-Readable Information on Cases	2011	
5: Encode Information in a Barcode	2011	GS1 Standard
6: Read and Store Information on Inbound Cases	2011	
7: Read and Store Information on Outbound Cases	2012	



Introduction to Global Trade Item Numbers

Alan Newton

- Consultant, Duda Farm Fresh Foods
- Participant on the PTI Implementation Working Group



About Duda

- Year-Round Supplier (Fresh/Processed)....

Celery

Sweet Corn

Leaf Lettuce

Processed Vegetables

Iceberg

Romaine

Radishes

Citrus (Domestic/Import)

- Shipping from 50+ locations in North America
- WMS with Bar-Coding at Pallet Level
- EDI with 30+ Trading Partners

Cattle Sugar Cane Sod Real Estate



What is a GTIN?

- GTIN = Global Trade Item Number
- A globally unique 8, 12, 13, or 14-digit number that uniquely identifies products and services
- An identification number of the GS1 System, therefore unique and unambiguous
- A global standard for collaborative commerce
- GTINs are encoded into GS1 data carries, such as the U.P.C and EAN-13 barcodes
- **PTI recommends using a 14-digit GTIN encoded in a GS1-128 barcode for case identification**



GTIN Assignment Responsibility

- The brand owner determines how to assign GTINs
- The receiver (packer, wholesaler/distributor or retailer) depends on the grower/supplier or brand owner to ensure uniqueness
- Contract suppliers obtain GTIN from brand owner



Creating a GTIN-14 for Cases

- 1. Indicator Digit:**
 - 1 digit in length; can use any number between 1-8
 - In example: 1
- 2. GS1 Company Prefix:**
 - 7-10 digits in length
 - Assigned by local GS1 organization (GS1 US, GS1 Canada, GS1 Mexico)
 - In example: 0764141
- 3. Item Reference Number:**
 - 1-5 digits in length – determined by your GS1 Company Prefix
 - Assigned by the grower/packer/shipper or brand owner
 - In example: 23462
- 4. Check Digit:**
 - 1 digit, last digit
 - Calculation based on previous digits (www.gs1us.org/checkdig)
 - In example: 1



Case Marking: GTIN in a GS1-128 Barcode

		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>
STEP	1	1	0	6	1	4	1	4	1	0	0	7	3	4	6
	2	1	0	6	1	4	1	4	1	0	0	7	3	4	6
	3	1	0	6	1	4	1	4	1	0	0	7	3	4	6
	4	1	0	6	1	4	1	4	1	0	0	7	3	4	6
	I	GS1 Company Prefix and Item Reference													v

I = Indicator Digit (can be 1-8)

Step 1 – Assign Indicator Digit

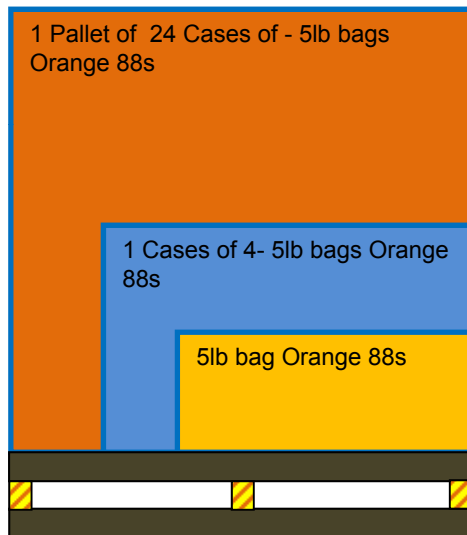
Step 2 – GS1 Company Prefix

Step 3 – Assign the Item Reference

Step 4 – Automatically calculated Check Digit



Assignment of GTINs to Case Level for PTI



2	0614141	99988	C
1	0614141	99988	C
0	0614141	99988	C

Indicator digit for higher levels of packaging



1 GTIN – 2 Roles

■ Physical

- Encoded in barcodes – unique identity
- Scanned at point-of-sale, warehouses, etc. – accurate data capture
- GTIN drives applications



■ eCommerce

- Intra-company: Stored in product masters to uniquely identify items
- Registered in a GDSN Data Pool and synchronized between trading partners
- Used in ongoing EDI and GS1 XML transactions between trading partners, e.g., purchase orders, invoices, advanced ship notices, etc.



Duda Farm Fresh Foods GTIN Assignment Approach

- Began assigning GTINs 15+ years ago
- Used “1” as Packaging Indicator and assigned GTINs at case level only
- Over 6,000 GTINs assigned
- GTINs automatically assigned by WMS



Duda Farm Fresh Foods GTIN Assignment Approach

- GTIN assigned based on:

Commodity

Outer Pack

Size/Count

COO

Variety (Variant)

Inner Pack

Growing Method

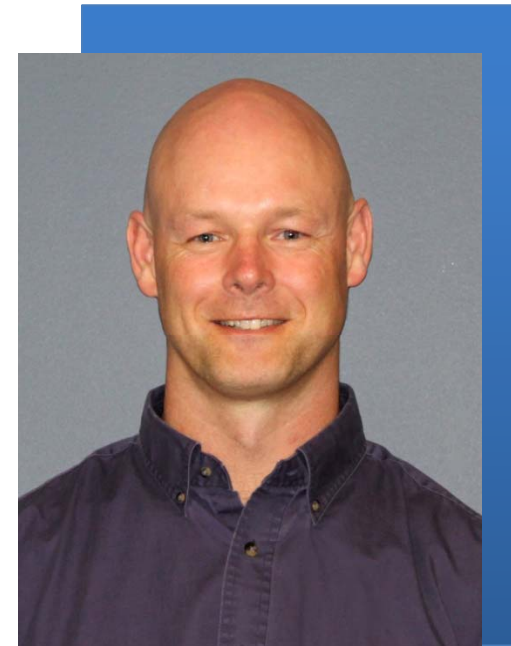
Grade



Recommended Approach for GTIN Assignment

Steve Roosdahl

- Director, Supply Chain Management, The Oppenheimer Group
- Co-Chair of the PTI Implementation Working Group
- Member of the PTI Master Data Working Group



The PRODUCE TRACEABILITY INITIATIVE



A leader in fresh produce for over 150 years!

- Full distribution from Coast to Coast
 - Retail
 - Wholesale
 - Foodservice
 - Club stores
- 40 million packages
- Growers in 25 countries
- Over 100 different varieties

From Seed to Shelf – we're there every step of the way...

- crop forecast modeling
- growing standards
- harvesting and pack consultation
- branding and packaging solutions
- packing/grade standards
- cool chain and logistics
- quality control
- food safety guidance and support
- market updates
- seamless information flow
- retail promotions
- category management
- transportation
- sales and marketing



GS1 Global Trade Item Numbers

- PTI Milestone 2: Assign Global Trade Item Numbers or GTINs to cases
- Purpose: To identify Brand Owners' products
- Full-chain traceability for cases of produce is achieved with GTIN and Batch/Lot Number
- GTIN + Batch/Lot Number ties internal traceability systems to an external system
- GTIN is the common language between trading partners



PTI Best Practices for GTIN Assignment

- The best practices are designed to:
 - Employ a strategy to minimize the number of GTINs assigned, and therefore have to be managed and communicated to trading partners.
 - Standardize product descriptions to reduce confusion and to implement logistics industry standards.

NOTE: There is a possibility of a collision between Brand Owner assigned GTINs and Batch/Lot numbers, when only assigned to private label products.



Recommended Approach

- 1. Standardize product descriptions so that GTINs are assigned only for unique combinations**
 - Product descriptions based on established produce attribute tables
 - Remove duplicates – for example, “12/3#” and “12 - 3lb”
 - Only items in use during a given season are defined as active; all others should be designated as inactive



Recommended Approach (cont)

2. Minimize the number of GTINs assigned by defining them at a summary level

- Brand Owner could group the varieties into higher, less specific classifications
- For example: A peach packer may have 13 detailed items for various varieties of yellow-flesh, size 52 peaches. Instead of creating separate GTINs for each specific variety, a smaller number of GTINs could be defined as “Brand X Yellow Peach size 52”



Table Guide – Example 1

- Attributes which would drive a new GTIN include:
 - Commodity Grapes
 - Variety Green
 - Case Type (Outer Packaging) Carton
 - Case Qty (Qty of Consumer Item) 10
 - Pack Style (Consumer Pack) Clamshell
 - Pack Size (Consumer Item) 1
 - Pack Size Unit (Consumer Item UoM) pound
 - Size Group (Product Size) 500s
 - *Growing Method (Consumer Preference) Organic
 - *Grade
 - *Brand Name
 - *Any Dimensional Changes $\pm 20\%$ (H, W, D)
 - *Any Weight Changes $\pm 20\%$ (Gross, Net)



Table Guide – Example 2

- Attributes which would drive a new GTIN include:
 - Commodity Apple
 - Variety Royal Gala
 - Case Type (Outer Packaging) Carton
 - Case Qty (Qty of Consumer Item)
 - Pack Style (Consumer Pack) Loose
 - Pack Size (Consumer Item)
 - Pack Size Unit (Consumer Item UoM)
 - Size Group (Product Size) 60s
 - *Growing Method (Consumer Preference) Organic
 - *Grade US No.1
 - *Brand Name
 - *Any Dimensional Changes $\pm 20\%$ (H, W, D)
 - *Any Weight Changes $\pm 20\%$ (Gross, Net) 40lb



Table Guide (cont)

- Attributes which would not drive a new GTIN include:

- Country of Origin USA
- Grower Label (Farm) Brown's



Use Case Examples

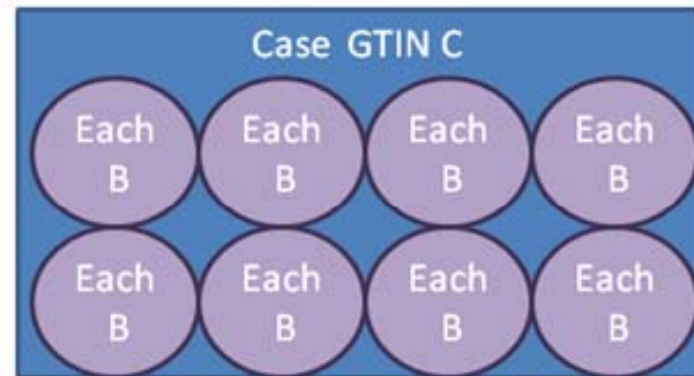
Two different items, they are different sizes. The items are packed into two different cases. Can the same case level GTIN be used on both boxes?

No, this is not allowable as the items contained in the case are different and the receiver of the case and the consumer would know the difference based on the size difference.

Different Each due to: **Size**



≠



The Oppenheimer Group's GTIN Assignment Approach

- Inactivated all items not used in the past 2 years
- Cleaned up any duplicate attributes
- Added and populated new attributes required for PTI
- Adding GTIN assignment logic to the Item Master based on the GTIN primary attribute rules
- Created a new Item request form and SOP for creating new items
- Specific staff assigned to maintain items



The Oppenheimer Group's GTIN Assignment Approach

- Each Oppenheimer item is based on 19 attributes, 8 more than a PTI GTIN primary attributes
- Oppenheimer currently has 42,000 active items and 32,000 inactive items
- 8,000 GTINs were created based on the PTI GTIN primary attributes
- Average 5.25 items for each GTIN



Best Practices for GTIN Assignment Strategy

- Updates have been made
- Final document currently being reviewed by the Implementation and Master Data Working Groups
- Release date for the updated Best Practices is by the end of this month, September 30
- Will be posted to the PTI website



Q&A

Technical Advisor:
James Chronowski

- Global Standards Director, GS1 US



Q&A: To ask a question...

- Type it into the “Q&A” box
 - bottom right corner of your WebEx window
- Send your question to “all panelists”
- Questions are submitted anonymously, to protect participants’ privacy



Thank you!

- © Produce Traceability Initiative
- Visit Events page for other webinar details
- Recording, slides posted to PTI website
- Live event participants: Take our survey

Visit www.producetraceability.org

