



**Hardlines
Data Attributes**

Bulk Products

Implementation Guideline

Version 1.0

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Introduction:	3
Retailer Input and Review:	3
Manufacturer, Data Pool, and Standards Participants:	4
Product Dimensional Attributes	5
Depth	6
Height	7
Width	8
Additional Hardlines Data Attributes:	9
Description Short	9
EAN.UCC Code	9
EAN.UCC Type	9
Gross Weight	9
Net Content	10
Net Content Unit of Measure	10
Ordering Lead Time	11
Order Quantity Maximum	11
Order Quantity Minimum	11
Ordering Unit Of Measure	12
Packaging Material Code	12
Packaging Material Description	12
Packaging Type Code	12
Packaging Type Description	12
Target Market Country Code	13
Variable Measure Examples:	13
Bulk Item Variable at Despatch Unit and Consumer Unit	13
Bulk Item Fixed at Despatch Unit and Variable At Consumer Unit	14
Bar Coding of Trade Items Consumable at Both the CASE and EACH Levels	15
Special Order and Delivery of Varying SPECIFIC Quantities of Bulk Trade Items	15

Introduction:

This document is intended to support trading partner data synchronization efforts for manufacturers of interior finishing, textile, hardware and building products, which share certain characteristics of merchandising and logistics. Examples include but are not limited to:

- Textile fabrics
- Carpet
- Wire, rope, chain
- Vinyl and linoleum flooring in sheet or tile form
- Hardwood flooring
- Acoustical ceilings

The format for the document is to:

- Identify the trade item data attribute
- Provide its definition as determined by the VICS Hardlines Data Sync Subcommittee in conjunction with schema definitions
- Share implementation best practices where applicable
- Answer specific questions received from manufacturers on how to implement a given attribute

The goal of this document is to:

- Clarify the use of specific data attributes
- Eliminate the need for trading partner specific implementation guidelines
- Identify values that retailers may require in each field

To that end, the VICS Hardlines Implementation Subcommittee arranged a discussion with representation from manufacturers, VICS members, Retailers and data pool service providers so that agreement could be reached for a consistent response to these questions. The output of that discussion is this document that provides specific implementation guidelines.

Retailer Input and Review:

Lowe's reviewed this document and provided input during a conference call on mm/dd/yyyy.

The Home Depot reviewed this document and provided input on mm/dd/yyyy.

Their combined suggestions have been incorporated into this document. The retailers will be asked to complete a review of the final draft and provide input to the changes.

Manufacturer, Data Pool, and Standards Participants:

The following individuals participated in the VICS Lumber Subcommittee Task Force to address the attributes identified in this document.

Participant	Company
Bill Hutchinson	Armstrong World Industries
Alan Garton	GS1 US
Gena Morgan	1 SYNC
Rich Richardson	GS1 US

Product Dimensional Attributes

Package measurement standards for Depth, Width and Height have not previously been clearly understood for many products in this industry. The following section provides basic information to support the correct determination of dimensional attributes, and provides references to additional material that more fully describes the process and exceptions to the general rules.

In order to obtain accurate dimensional attributes, it is critical to reference and follow the EAN.UCC Package Measurement Rules for Data Alignment. (Section 6.8 of the General EAN.UCC Specifications) The package measurement rules provide for a consistent and standardized methodology for measuring dimensions of trade items. Additional information is contained in the GS1 US Package Measurement Guidelines that further explain and illustrate the processes used to correctly obtain dimensional attributes.

Note: The methods to obtain dimensional attributes are based on reference surfaces that are different based on whether or not a trade item is intended to pass through point-of-sale.

- Consumer Trade Items **are** intended to pass through point of sale
- Non-Consumer Trade Items **are not** intended to pass through point of sale

Figure 1 - Typical Consumer Trade Items

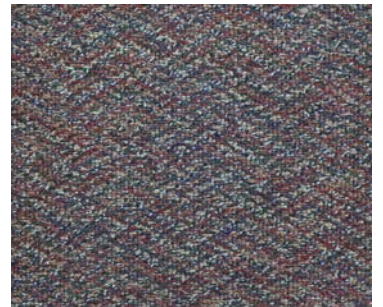


Figure 2 - Typical Non-Consumer Trade Items



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5



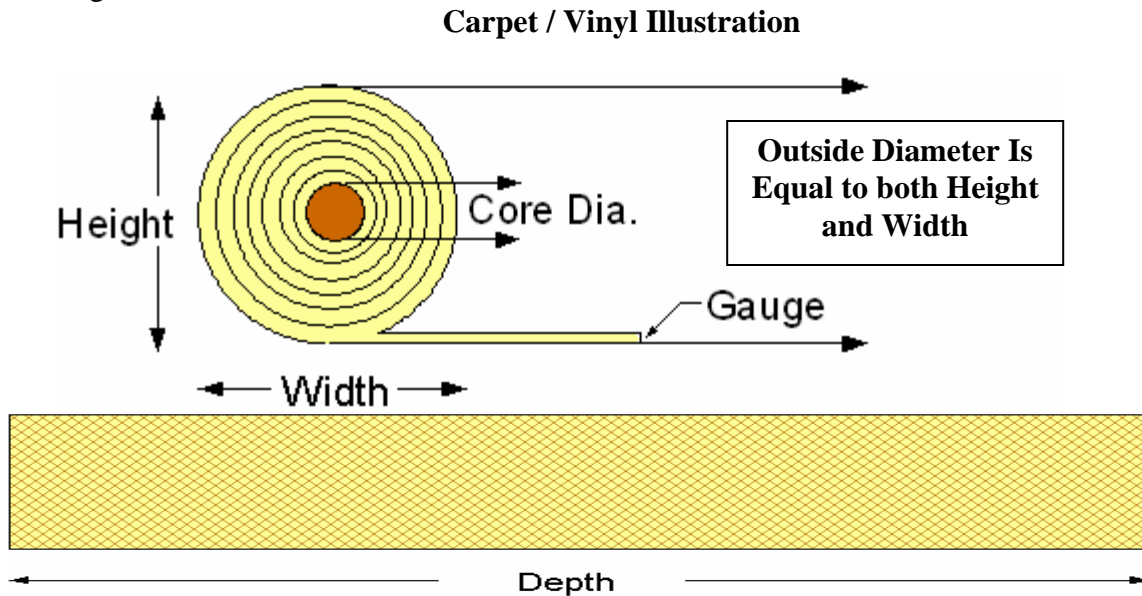
Depth

Definition:

- For **Consumer Trade Items**, depth is defined as the measurement from front to back while facing the default front.
- For **Non-Consumer Trade Items**, depth is defined as the longest side of the Natural Base.

Reference and follow EAN.UCC package Measurement Rules for Data Alignment. (Section 6.8 of the General EAN.UCC Specifications) The package measurement rules provide for a consistent and standardized methodology for measuring dimensions of a trade item, and are based on a reference surface as further described in the general specifications. Also reference GS1 US Package Measurement Guidelines that further illustrate how to correctly obtain dimensional attributes for both types of trade items.

Implementation Note: When height, width and depth are populated, the UOM must match on all of the attributes (e.g. inches). Change to the depth of an item cannot be more than 20% of the original value.



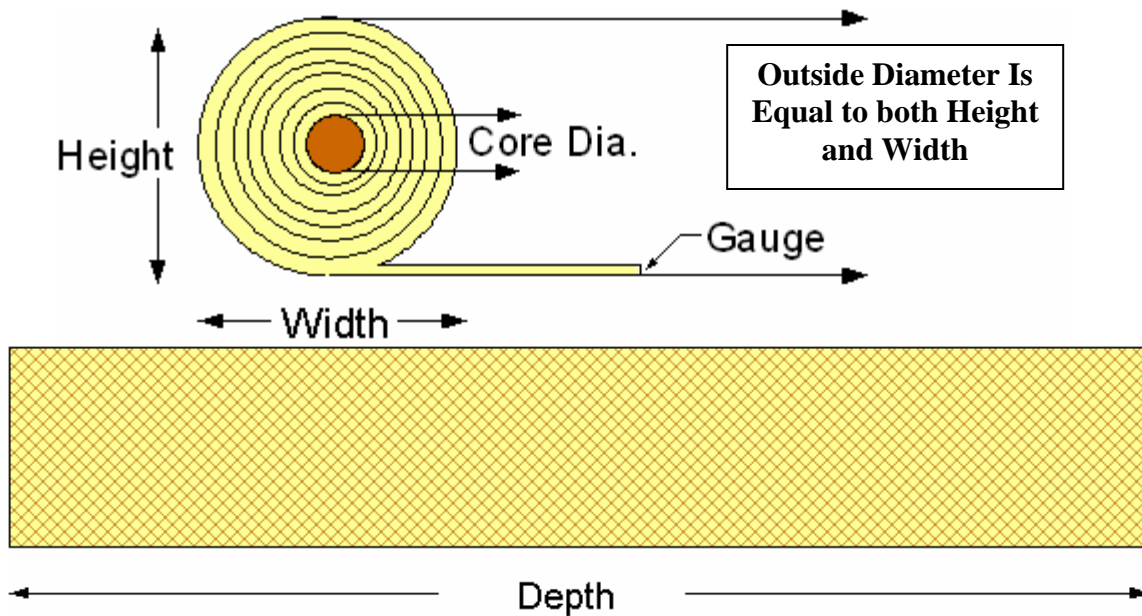
Height

Definition:

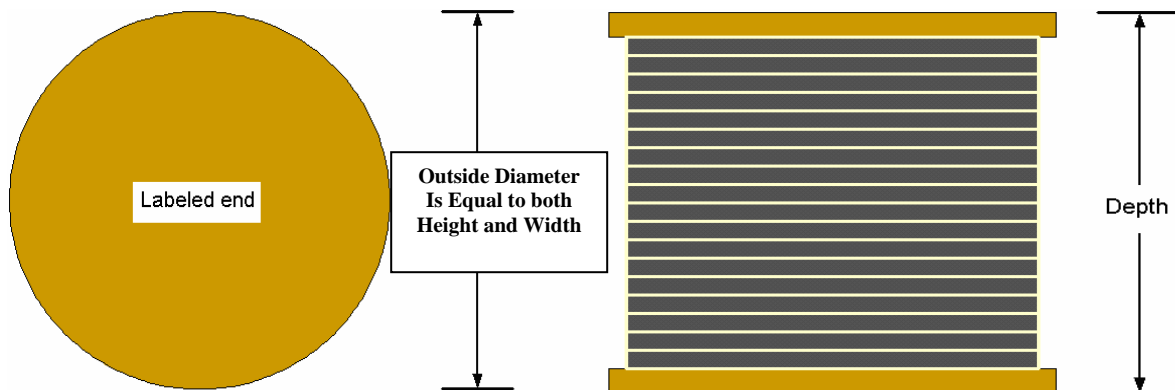
- For **Consumer Trade Items**, height is defined as the measurement from the bottom most point to the top most point while facing the Default Front.
- For **Non-Consumer Trade Items**, height is defined as the measurement from the bottom most point to the top most point of the Natural base.

Implementation Note: When height, width and depth are populated, the UOM must match on all of the attributes (e.g. inches). Change to the height of an item cannot be more than 20% of the original value. When considering palletized GTINs, the height of the pallet **IS NOT INCLUDED** in the measurement.

Carpet / Vinyl Illustration



Wire / Rope / Chain Illustration

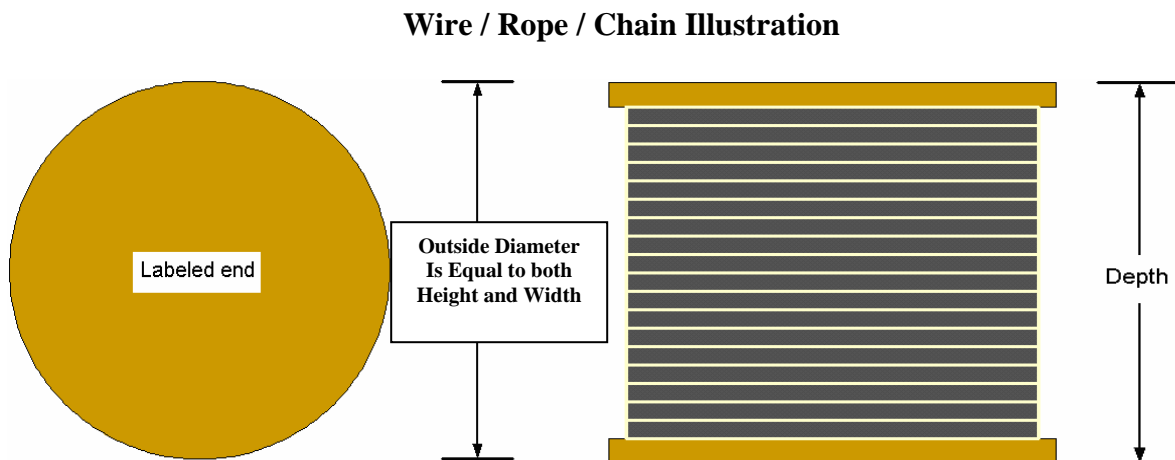
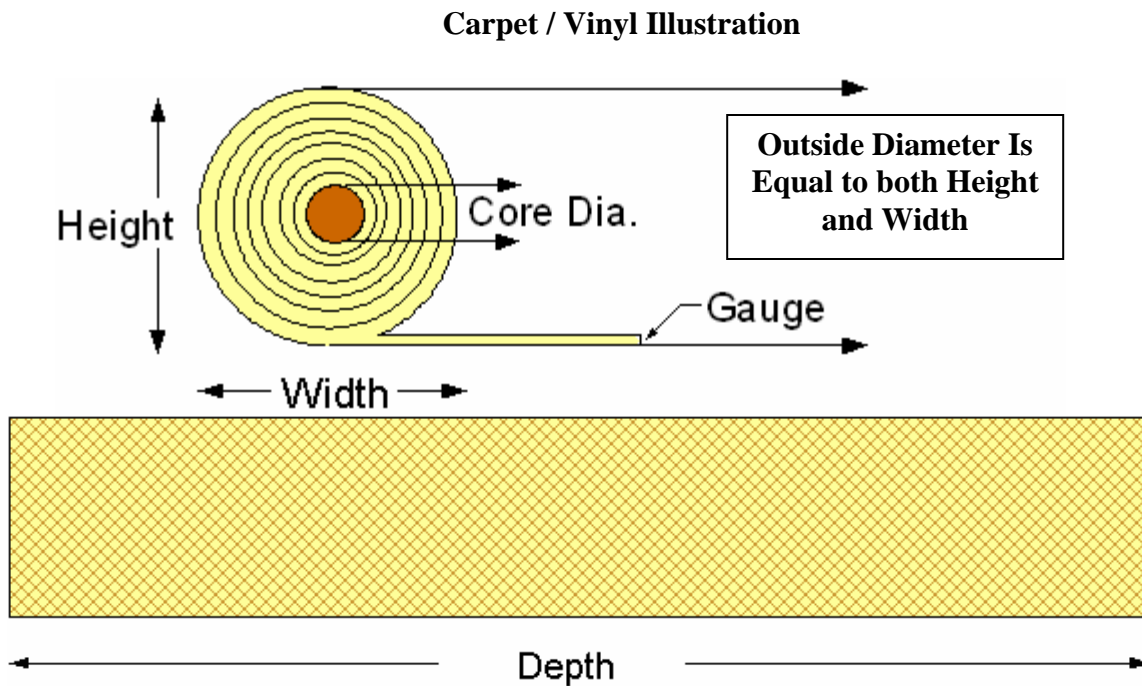


Width

Definition:

- For **Consumer Trade Items**, width is defined as the measurement from left to right while facing the Default Front.
- For **Non-Consumer Trade Items**, width is defined as the shortest side of the Natural Base.

Implementation Note: When height, width and depth are populated, the UOM must match on all of the attributes (e.g. inches). Change to the height of an item cannot be more than 20% of the original value.



Additional Hardlines Data Attributes:

Description Short

Description: 30 character description that is used as the primary item description in the retailer's system.

Implementation Note: Some Hardlines retailer's systems may truncate this field.

Question: What is expected here?

Answer: This field should be populated with a free form short length description of the trade item that can be used to identify the trade item at point of sale. Cryptic abbreviations should be avoided. This description should be recognizable to any reader. Retailers will use data from other fields to create shelf tags.

EAN.UCC Code

Description: The data structure assigned and marked on a physical product.

Implementation Note: The code relates directly to the symbology physically printed on the product (barcode). This code may be an 8, 12, 13 or 14-digit GTIN.

Examples:

Hierarchy Level	Data Structure	EAN.UCC Code
BASE_UNIT_OR_EACH	UCC-12	05555512345X
CASE	EAN.UCC-14	0055555987651X
PALLET	EAN.UCC-14	3055555987651X

EAN.UCC Type

Description: An EAN.UCC qualifier code that describes the data structure of the barcode.

Implementation Note: This qualifier code should list the varying data structure types that should be associated with an item's EAN.UCC Code.

Examples:

Hierarchy Level	Data Structure	EAN.UCC Type
BASE_UNIT_OR_EACH	UCC-12	UP
CASE	EAN.UCC-14	UK
PALLET	EAN.UCC-14	UK

Gross Weight

Description: Used to identify the gross weight of the trade item. The gross weight includes all packaging materials of the trade item. At pallet level the trade item Gross Weight **includes** the weight of the pallet itself.

Implementation Note: Gross weight required on Orderable Units only. If gross weight and net weight are provided on the same record, gross weight must be greater than or equal to net weight, and the UOM must match (e.g. pounds). Change to the gross weight cannot be more than 20% of the original value.

Net Content

Description: The amount of the trade item contained by a package as claimed on the label

Implementation Note: Since this attribute defines the content of the actual trade item, the Carpet/Flooring/Wire/Textile manufacturers propose to use this attribute to convey the numeric value (e.g. 100) (foot, square foot, yards with this portion conveyed in the unit of measure portion UOM) of the item. In case of variable trade items, the average or nominal content of the item would be conveyed.

Net Content Unit of Measure

Description: The unit of measure associated with the net content relays to the recipient the unit type that is associated to the value of the net content attribute.

Implementation Note: Since this attribute defines the content of the actual trade item, the Carpet/Flooring/Wire/Textile manufacturers use this attribute to convey the numeric value (e.g. 100) (foot, square foot, yards with this portion conveyed in the unit of measure portion UOM) of the item. In case of variable trade items, the average content of the items would be conveyed.

Examples:

Fabric/Textile: 12 yards / Wire/Chain/Coil: 75 yards / Carpet/Flooring: 150 square yards

Ordering Lead Time

Description: The normal delivery time measured from receipt of order by the seller until trade item is shipped by the seller. Lead time is defined as from date of receipt of PO by the seller to shipment date the product leaves the seller.

Implementation Note: Needed only if the Trade Item is flagged as an Orderable Unit. While this attribute is optional in the standard, HARDLINES RETAILERS have indicated their intention to reject any item notifications that omit this attribute value, so as a best practice this field should always be populated.

Question: How will the retailers use this information? Lead times for the retailers are negotiated and vary by retailer. Should we fill with this attribute with our standard lead time (e.g. 10 days)?

Answer: Manufacturers should list their **standard** lead times for all items.

Example: 12 hours, 48 hours, 4 days

Order Quantity Maximum

Description: This is a number, or a count that is used to control manufacturing and or distribution costs. This attribute may be relationship dependant. An example would be new item introductions or seasonal products where the manufacturer sets limits on the quantity a retailer may order.

Question: Is this needed on the every-day items that are not seasonal or limited quantities and if so, what would the retailers want us to fill this in with? The attribute allows for 999999999; what do the retailers want to see?

Answer: This attribute is Situational and only applies if the Trade Item is flagged as an Orderable Unit. It should only be used on those items where it applies (i.e. new product releases, seasonal items and limited productions). If not needed, leave blank. A blank will be taken as no maximum quantities apply.

Order Quantity Minimum

Description: Represents an agreed to minimum quantity of the trade item that can be ordered. The attribute applies to each individual order, and may be a fixed amount for all customers in a target market. The attribute is optional and is typically left blank.

Implementation Note: If the product type is not an orderable unit, there should not be a minimum quantity set.

Order Quantity Multiple

Description: The order quantity multiples in which the trade item may be ordered.

Implementation Note: If the product type is **NOT** an orderable unit, there should not be a minimum or multiple.

Ordering Unit Of Measure

Description: The alternate Unit of Measure that supports trade items that are ordered by the Retailer with one Unit of Measure, but sold with another Unit of Measure. This attribute affords the ability to specify multiple units of measure by which an item may be bought and sold.

Example: Wire ordered by the spool and sold by the foot.

Implementation Note: This is a Hardlines extension attribute and is trading partner dependent.

Packaging Material Code

Description: This attribute numerically represents the type of material used to create the packaging material of the trade item based on an EAN.UCC defined code list.

Example: "2" = Aluminum, and "8" = Wood

Implementation Note: This attribute is used in conjunction with Packaging Material Description

Question: Has the code source for the packaging attributes been identified yet?

Answer: The code list is dynamic and subject to change, always refer to the latest version. This information is available from many sources including your data pool, or from GS1 US. The current list used by GDSN is attached as Appendix 1 for reference only.

Packaging Material Description

Description: System-generated text value based on the EAN.UCC system code list for packaging Material Code.

Example: GL = "Glass" AL = "Aluminum"

Implementation Note: This attribute is used in conjunction with Packaging Material Code

Packaging Type Code

Description: This attribute represents the type of material used to create the packaging material of the trade item based on the ANSI DE 103 defined code list. It is used in conjunction with Packaging Type Description.

Example: "2" = Aluminum, and "8" = Wood

Implementation Note: The packaging material code is currently based on ANSI X12 data element DE 103 code list

Packaging Type Description

Description: A system-generated text description based on the Packaging Type Code. The attribute is repeatable per Packaging Type Code.

Target Market Country Code

Description: The target market code indicates the country level or higher geographical definition in which the information provider will make the GTIN available to buyers. This indicator does not in any way govern where the buyer may re-sell the GTIN to consumers.

Implementation Note: Supplied value is a valid Country Code and matches the Country Code added to the RCIR (Registry Catalogue Item Registry).

Examples: 124 = Canada 484=Mexico 840 = United States

Trade Item Unit of Measure

Description: Describes the measurement used for selling unit of the trade item to the end consumer. The trade item's Unit of Measure is mandatory on Consumer Units. A trade item may have only one Unit of Measure.

Implementation Note: This attribute is the unit of measure that is used for the end consumer.

Example:

<u>Product Type</u>	<u>Net Content & (UOM)</u>	<u>Trade Item (UOM)</u>
Bolt of Fabric/Textile:	12 yards	foot
Wire/Chain/Coil:	75 yards	foot
Carpet/Flooring:	150 square yards	foot

Variable Measure Examples:

Bulk Item Variable at Despatch Unit and Consumer Unit

Examples: A roll of carpet or vinyl flooring has variable dimensional attributes at the despatch unit and has pieces cut from the roll in varying quantities for sale to the consumer. The unit of measure at the consumer level is typically different.

Implementation Note: Treat these items as a variable measure Non-Consumer trade item at the CASE level with no need for an EACH level. Declare a single level trade item with unit descriptor of CASE and unit indicators set as follows:

Consumer?	Despatch?	Invoice?	Orderable?	Variable?
TRUE	TRUE	TRUE	TRUE	TRUE

The trade item will be assigned a GTIN beginning with 9 indicating a variable measure roll.

Question: How should the information for the GTIN and the actual quantity of product on a given roll be encoded in EAN.UCC symbology?

Answer: Compliance with EAN.UCC Standards requires UCC/EAN-128 symbology and use of Application Identifiers (AI) to transmit the GTIN and actual quantity as shown below.

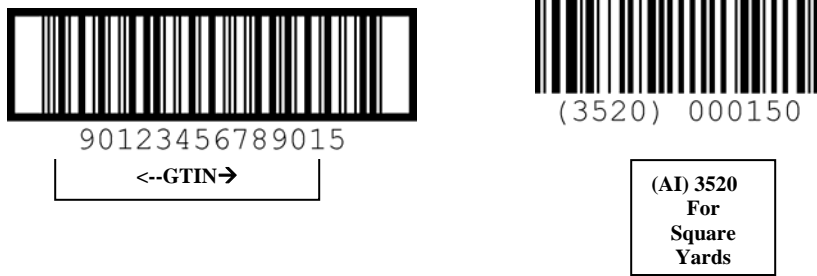
(01) 90123456789015 (3520) 000150

Actual Quantity = 150
(In Square Yards)

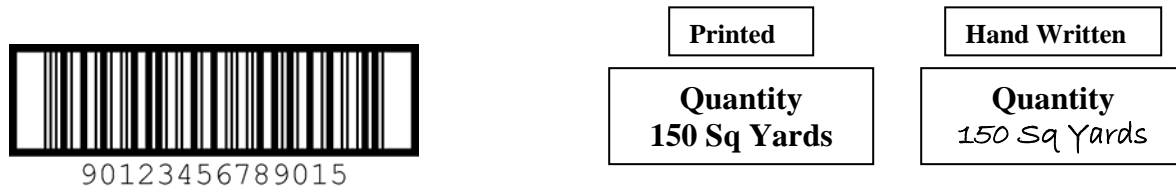
Version 1.0 12/1/2005

13

Alternatively, the GTIN associated with the trade item may be encoded in an ITF_14_SYMBOL as shown below, and the actual quantity encoded in a separate UCC/EAN-128 symbology.



Another alternative would be to encode the GTIN associated with the trade item in an ITF_14_SYMBOL as shown below, and to supply the actual quantity printed or handwritten on another label without symbology.



Bulk Item Fixed at Despatch Unit and Variable At Consumer Unit

Examples: Spool of wire, which has fixed dimensional attributes at the despatch unit and can be sold either as the spool or pieces cut from the spool.

Implementation Note: Treat these items as a fixed measure trade item at the CASE and EACH level. Declare a two-level trade item with unit indicators set as follows:

CASE

Consumer?	Despatch?	Invoice?	Orderable?	Variable?
FALSE	TRUE	TRUE	TRUE	FALSE

EACH

Consumer?	Despatch?	Invoice?	Orderable?	Variable?
TRUE	FALSE	FALSE	FALSE	FALSE

- UPC-A codes may be assigned for both levels of the trade item, one for the CASE of spools and one for the spool or EACH.

Bar Coding of Trade Items Consumable at Both the CASE and EACH Levels

Examples: CASES (cartons) of floor or ceiling tile containing individual pieces where both the CASE and the EACH are consumable

Problem: At the request of the retailer, both ITF-14 and UPC-A barcode symbols are printed on the CASE and these were requested to be different and unique; this practice violates the rule that a trade item must have one and only one GTIN; while the EAN-UCC type and bar code type are recursive, the EAN-UCC code is not and only a single code can be declared.

Solution: Both the Case and the Each must be identified with a unique GTIN. The GTIN of the CASE level item will typically be based on the data structure of the UPC-A barcode

Question: A number of items that bear bar codes have both a UPC-A and an ITF-14 on the package serving both checkout and logistical purposes. In these instances, the item is flagged as a consumer unit, and Bar Code Type is set to reflect the UPC-A (ignoring the I2o5). Is this the preferred method for handling the situation?

Answer: Placing both UPC-A and ITF-14 symbols on a case violates current EAN.UCC standards. The BarCodeType is a recursive attribute and can contain both UPC-A and ITF-14. Manufacturers who must apply both types of bar codes on a case to meet retailer mandates should ensure that the two bar codes do not appear on the same surface to prevent confusion with distribution center and retail scanning systems. In addition, since a trade item may have only one identity, the bar codes must both carry the same information. See example below:

Trade Item UPC-A contains: 61414112345C (C represents the calculated check digit)

Trade Item ITF-14 contains: **00**61414112345C (C represents the calculated check digit)

In this example the ITF-14 is used for logistics purposes to encode the GTIN for the spool and the UPC-A **MUST** be used at point-of-sale encode the GTIN for the spool

Special Order and Delivery of Varying SPECIFIC Quantities of Bulk Trade Items

Example: A job-specific quantity of carpet or vinyl flooring delivered from the supplier to the retailer and thence to the consumer with no intention of cutting from it

Proposed Implementation: There is currently no solution envisioned within the data synchronization scheme to convey the quantity of the trade item in the special order roll; it is proposed to use the above model and to continue the practice of handling the special order number and quantity “out-of-band” from data synchronization. The orderQuantityMinimum and orderQuantityMultiple are especially important in this variant. The netContent for this variant could be equal to the orderQuantityMinimum for items which always built-to-order, or to a nominal or average roll for items which *could* be stocked. The latter is recommended if practical to avoid the >20% rule for GTINs.

