GTIN Assignment and Management

Clarification and Implementation Guide for General Merchandise and Hardlines

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1 What Is a Global Trade Item Number?

One of the main building blocks of the GS1 System, a Global Trade Item Number® (or GTIN®) is a number that uniquely identifies trade items as they move through the global supply chain to the ultimate end user.

1.1 What Is a GTIN Used For?

GTINs are encountered most frequently at retail point of sale and on inner packs, cases, and pallets of products in a distribution/warehouse environment. They are commonly used on purchase orders and in delivery and payment documents.

1.2 Key Attributes of the GTIN

UNIQUENESS

The GTIN uniquely identifies trade items at all item and package levels, thus ensuring that they are always identified correctly anywhere in the world. Each trade item that is different from another is allocated a separate, unique GTIN. The rules for assigning GTINs ensure that every variation of an item is allocated a single number that is globally unique. A GTIN can be assigned by a GS1 Company Prefix licensee anywhere in the world and can be used anywhere in the world.

DATA QUALITY

The GTIN delivers trade item data using a standardized format and structure. The GTIN does not contain any meaningful information; rather it is simply a pointer to database information that can be directly used in any company and in any country.

An item can be looked up in a database and its associated information retrieved at any point or location. The uniqueness of GTINs is provided through a standardized format that includes a Check Digit. The Check Digit ensures the integrity of data passing through the system.

GTIN NON-REUSE

The standard for GTIN Reuse will be changed in December 2018: a GTIN allocated to a trade item SHALL NOT be reallocated to another trade item. The only exceptions include:

- If a GTIN has been assigned to an item, which was then never actually produced, the GTIN may be deleted from any catalogue immediately without first being marked as discontinued. In this exceptional case, the GTIN may be reused 12 months after deletion from the seller’s catalogue.

WHAT IS A TRADE ITEM?

Any product or service that may be priced, ordered, or invoiced at any point in the supply chain. Trade items include individual items as well as all of their different packaging configurations.
- Trade items that have been withdrawn from the market and are reintroduced may use the original GTIN if they are reintroduced without any modifications or changes that require a new GTIN as specified by the GTIN Management Standard.

1.3 Business Benefits of Using GTINs

As the building block for all GS1 Systems for global trade, the GTIN is well established as the standard in every country for trade items. GTINs enable items to be sourced and traded globally in the knowledge that they can be scanned and data retrieved for them in any application that is GS1 compliant. If you are a retailer or manufacturer, then this is a vital component of your business and will be or has already become an integral part of all your business systems. Other industries such as healthcare are rapidly adopting the GTIN to help reap the rewards seen in other sectors.

Simply put, using the GTIN simplifies supply chain management and provides accuracy, speed, and efficiency for your business. Providing GTINs for your trade items:

- **DRIVES E-COMMERCE:** Using the GTIN facilitates the global flow of trade items and associated information used in electronic commerce. One of the key benefits of the GTIN is that it can be encoded into various types of automatic data capture technologies, such as barcodes and EPC-enabled RFID tags. Machine reading allows the information to be linked to the physical flow of trade items throughout the supply chain.

- **ENHANCES COMPATIBILITY:** Because GTINs work within any business sector and across business sectors, companies can trade goods and services knowing that the identification will be compatible. For example, a healthcare item that is sold in a retail pharmacy or through a healthcare supply chain is assigned the same GTIN.

- **FACILITATES ACCURACY:** Use of the GTIN improves scanning at checkout, warehouse, or hospital. It is also essential for accurate stock control and order replenishment.

- **FOSTERS GDSN COMPLIANCE:** The GTIN identifies trade items for electronic data exchange between trading partners as a required component of a GDSN.

- **PROVIDES FLEXIBILITY:** Use of GTINs offers companies the ability to include additional information such as date codes, weight, batch numbers, etc.

1.4 How Is the GTIN Formed?

The GTIN is assigned by the brand owner of the product. Once assigned, all trading partners and internal users can use the GTIN.

**Elements of the GTIN**

- **INDICATOR DIGIT:** The leftmost digit of a GTIN-14 is the indicator digit. The digit 0 indicates a base unit GTIN; the digits 1 to 8 are used to define packaging hierarchy of a product with the same Item Reference, and digit 9 indicates a variable measure trade item.
■ **GS1 COMPANY PREFIX:** The globally unique number assigned to a company by GS1 Member Organizations to create the identification numbers of the GS1 System. Company Prefixes, which vary in length, are comprised of a GS1 Prefix and a Company Number.

■ **ITEM REFERENCE:** The part of the GTIN that is allocated by the user to identify a trade item for a given Company Prefix. The Item Reference varies in length as a function of the Company Prefix length.

■ **CHECK DIGIT:** A calculated one-digit number used to verify that the data has been correctly composed or correctly keypunched. To understand how this digit is calculated, refer to www.gs1us.org/checkdig.

### 1.5 Types of GTIN

GTINs can be 8, 12, 13, or 14 digits in length. Each type of GTIN provides unique numbers that correspond to specific company and product information. GS1 recommends that every GTIN be represented in software applications as 14 digits by right justifying and zero filling left, as appropriate. The following table demonstrates the structure of GTINs in a GTIN-compliant database:

Following are the components and examples of each type of GTIN:

**GTIN-8**
The GTIN-8 is used in EAN-8 barcodes. Components include:

- Seven digits containing a GS1-8 Prefix and the Item Reference assigned by your company
- One digit representing the Check Digit

**GTIN-12**
The GTIN-12 is used in U.P.C.-A barcodes. Components include:

- Eleven digits containing a U.P.C. Company Prefix and the Item Reference assigned by your company
- One digit representing the Check Digit

**GTIN-13**
The GTIN-13 is used in EAN-13 barcodes. Components include:

- Twelve digits containing a GS1 Company Prefix and the Item Reference assigned by your company
- One digit representing the Check Digit

**GTIN-14**
The GTIN-14 is used in ITF-14, GS1-128 (formerly UCC/EAN-128), GS1 DataBar™, and Data Matrix symbols as well as EPCs. GTIN-14 is also the data format that's used in IT applications and online. Components include:
One digit representing the Indicator Digit to indicate packaging level  
Twelve digits containing the GS1 Company Prefix and the Item Reference assigned by your company  
One digit representing the Check Digit

1.6 Which GTIN Is Right for Your Product?

A GTIN may be encoded in a multitude of different symbologies. The appropriate GTIN and barcode or EPC combination is determined by many factors, such as the type of product, point of sale vs. distribution, and printing material used for the product packaging.

The following table identifies which GTIN/symbology combination can be applied for specific scanning environments.

<table>
<thead>
<tr>
<th>Symbology</th>
<th>GTIN</th>
<th>Used in Retail</th>
<th>Used in general distribution</th>
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<tr>
<td>UPC</td>
<td>GTIN12</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>EAN</td>
<td>GTIN13</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>ITF</td>
<td>GTIN12/13/14</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>GS1-128</td>
<td>GTIN12/13/14</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>GS1 DataBar</td>
<td>GTIN12/13/14*</td>
<td>No*</td>
<td>No</td>
</tr>
<tr>
<td>GS1 DataMatrix</td>
<td>GTIN12/13/14</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

*Of the GS1 DataBar family, only the GS1 DataBar stacked omni-directional is used on fresh produce to encode a GTIN12/13, but is not yet adopted by all retailers. It is recommended that manufacturers check with their trade partners before implementing this solution.

**For additional information on bar code symbologies please refer to the Bar Code section of the GS1 Canada website.

1.7 Frequently Asked Questions About the GTIN

What is a GTIN?

Global Trade Item Number, or GTIN, is a term used to describe the various versions of number structures that uniquely identify products and services.

Does GTIN replace the U.P.C.?

No, GTIN is a term only. The U.P.C. barcode symbol (also known as a U.P.C.-A) encodes a 12-digit GTIN. The U.P.C. does not go away; companies that place a GTIN-12 (U.P.C.) on products now should continue to do so.
Is a unique GTIN required for every level of packaging?

Yes. There should be a unique GTIN identifying the consumer unit, inner pack, multi-pack, case, or pallet where applicable.

What is GTIN compliance?

A company is considered GTIN compliant when it is able to process, store, and communicate information about its products with trading partners using all types of GTINs, whether 8, 12, 13, or 14 digits. Companies become GTIN compliant by expanding the appropriate systems and applications to 14 digits. This will support the GTIN on products at all levels of packaging (consumer, inner packs, multi-packs, cases, pallets, etc). A company must be GTIN compliant in order to take advantage of:

- Data synchronization using the Global Data Synchronization Network (GDSN)
- GS1 DataBar
- Electronic Product Codes

1.8 Does my company need a new GS1 Company Prefix to create GTINs?

No. If you already have a Company Prefix you should continue to use the one already licensed.

2 Common GTIN Assignment Issues

In the following section we will look at different scenarios expressing the most common pain point errors related to GTIN Assignment.

2.1 Scenario 1: Dynamic Assortments

A dynamic assortment is a common GTIN assigned to different items which may be identified in a retailer system by a common description.

An example of this would be matchbox cars or toothbrushes.

Each individual toy car may have specific characteristics (fire engine; police car; etc...) but are all identified by the same GTIN. Similar issues arise with the toothbrush example where the different coloured toothbrushes all share the same GTIN.

In a brick and mortar store this has an impact, but less so than in an eCommerce platform.

Even if the items cannot be individually ordered, your trade partners may need to track them regardless.

Issues:

- Without unique identification by type/variant there is no way to track; re-order.
- This is especially an issue with eCommerce applications where specifics impact consumer decisions.
**Recommendation:**
Check with your trade partners if the product is planned for eCommerce or if there are any issues with Dynamic assortment marking practices.

### 2.2 Scenario 2: Multipak or Predefined Assortment

A multipack or predefined assortment is a unique GTIN assigned to a grouping of different items.

An example of this would be different coloured socks in a 3 pack or shampoo and conditioner value pack.

Individually, the items are uniquely identified with a GTIN.

The most common mistake for multipacks is where the various combinations are identified with the same GTIN, similar to a dynamic assortment. We already

In an eCommerce environment like a brick and mortar store this has an impact, especially in instances where the multipacks may be broken down to replenish low stocks.

**Issues:**
- Without proper unique identification by type/variant there is no way to track; re-order.
- This is especially an issue with eCommerce applications where specifics impact consumer decisions.

**Recommendation:**
Ensure proper allocation is followed: each unique grouping must be identified with its own GTIN.

### 2.3 Scenario 3: Set Packs

For a setpack, each different trade item within the setpack will be assigned a GTIN, maintaining the one-to-one relationship between trade item/color ID/size ID and the GTIN. The individual trade item GTIN must be scannable at the Point-of-Sale and may or may not be orderable separately outside the setpack(s). A separate and unique GTIN is assigned to each setpack. This GTIN is also scannable at Point-of-Sale.

The most common mistake for multipacks is where the various combinations are identified with the same GTIN, similar to a dynamic assortment.

In an eCommerce environment like a brick and mortar store this has an impact, especially in instances where the multipacks may be broken down to replenish low stocks.

**Issues:**
- Without proper unique identification by type/variant there is no way to track; re-order.
- This is especially an issue with eCommerce applications where specifics impact consumer decisions.
Recommendation:

Check with your trade partners if the product is planned for eCommerce or if there are any issues with setpack marking practices.

2.4 Scenario 4: GTIN Recycling

According to the GS1 General Specifications, a GTIN, (which is not assigned to a regulated healthcare item) may be recycled after a period of four years past the last ship date, or longer depending on expected trade partner stock levels.

Some manufacturers recycle GTINs more frequently which may cause misses with their trade partners.

Example: a manufacturer of Christmas decorations produces clear plain Christmas lights one year, and assigns the same GTIN the following year to a new string with faceted white bulbs.

The estimation by the manufacturer is that both items sold are white, identical bulb count, Christmas lights so it is OK to maintain the same GTIN.

For the trade partner, this can cause issues with recalls, replacement sets, client re-ordering frustrations and general inventory control.

Issues:

- Without proper wait times stock on hand, recall issues, online identification become contaminated.
- For eCommerce this could be clients comparing older versions to newer models resulting in lost sales.
- A recall for an older version may negatively impact a corrected newer model

Recommendation:

Ensure you wait a minimum of (4) four years before re-issuing your GTINs to a new product.

If the product does not expire, check with your trade partners to see if there is any remaining stock on hand.

2.5 Scenario 5: RCN – Restricted Circulation Numbers (Series 4000 GTINs)

GS1 standards take into account store specific and retailer specific marking requirements, and for this they assigned a two blocks of codes the 2000 series and the 4000 series. These number, although similar to GTINs in many respects, are actually Restricted Circulation Numbers (RCNs) and function with the GTIN numbering system due to the closed loop nature of its environment.

The 2000 series is applicable for in store marking (for variable count/length items like chain on demand; in store cut rope or electrical wiring; anything that is sold to the client’s requirements, and is restricted to the particular store in which it was purchased.

The 4000 series is similar to the 2000 series, except it is a retailer based and is assigned to fixed items (house brands; internal non variable items).
Example:

- Retailer branded shopping bags; house brand tools or clothing.

The retailer decides what code to apply to the items they order.

Some overseas suppliers have taken to apply one retailer’s assigned number and pre print labels for all other retailers. Unfortunately multiple retailers are sharing this finite pool of numbers, and which the growth of one stop shop facilities it is not uncommon for multiple different product to be identified with the same GTIN.

**Issues:**

- A closed loop system being improperly applied as a GTIN
- Multiple different value items identified with the same number

**Recommendation:**

Ensure trade partners dealing with you have a functional knowledge of GTIN creation to avoid duplication in your database.
3  GTIN Management - Introduction

The General Merchandise and Hardlines industry widely uses the legacy term ‘Universal Product Code’ to describe the unique identifier at the retail product level, this terminology is derived from the predominant retail barcode symbology used in North America. Within this document we hope to demystify the legacy terms, and apply the precise terminology at the core of those legacy terms.

First let us look at the unique identification terminology:

- **U.P.C.** (Universal Product Code) is the symbology used to transport the data from the physical printed world into a data system through the use of a barcode reader.

- **GTIN** (Global Trade Item Number) is the unique identifier encoded in the bar code symbol.

The Global Trade Item Number (GTIN) provides a global supply chain solution by identifying any trade item that may be priced, or ordered, or invoiced at any point in the supply chain upon which there is a need to retrieve pre-defined information.

The Global Trade Item Number (GTIN) Management Standard is designed to help industry make consistent decisions about the unique identification of trade items in open supply chains. This standard has been developed in accordance with the GS1 Global Standards Management Process (GSMP) and is considered a part of the GS1 system of standards. Overall, costs are minimised when all partners in the supply chain adhere to the GTIN Management Standard.

Unique identification of trade items is critical to maintaining operational efficiencies that business partners rely on to exchange information about products in consistent ways, as well as ensuring the smooth operations of global supply chains. Additionally, the unique identification of trade items is crucial when complying with various regulations across the globe. Finally, unique identification as well as communication between trading partners of those changes are essential to ensure the right product is made available on the store shelf or is presented and fulfilled properly from an e-commerce platform to the consumer.

Note: The rules identified in the following sections are based on the unique identification of retail and general distribution products for applications in a ‘brick and mortar’ setting. Although online applications were considered and discussed, not all product changes require the modification of the unique identifier (GTIN).
3.1 Guiding principles/Business objectives of changing a GTIN

The GTIN Management Standard provides an industry standard to create practical business and consumer value, specifically when pre-defined information changes on an existing product or when a new product is introduced for the first time. The following guiding principles should be considered by any brand owner when introducing changes to an existing product and also when developing a GTIN assignment strategy for a new product.

1. Is a consumer and/or trading partner expected to distinguish the changed or new product from previous/current products?

2. Is there a regulatory/liability disclosure requirement to the consumer and/or trading partner?

3. Is there a substantial impact to the supply chain (e.g., how the product is shipped, stored, received)?

At least one of the guiding principles must apply for a GTIN change to be required.

3.2 Defining a new product compared to a product change

When making decisions about product identification, it is important to understand the differences between a NEW product and changes to an existing product.

New products are those which do not currently exist in a brand owner’s product offering and are new to the marketplace. A new product should be considered an “addition” to a product offering. The GTIN Management Standard requires that if a product is new, it should always be assigned a new GTIN to accurately distinguish the new product from any existing product, which is a product that is currently available in the marketplace.

Changes to existing products are considered “replacement products” (the previous version will no longer exist once the replacement product has flowed through, as determined by the brand owner). The GTIN Management Standard defines when a change to certain attributes of an existing product is such that a new GTIN is required.

- **New product:** A "new product" is defined as a product that does not currently exist or has not been available for sale and is an addition to the brand owner’s portfolio/is new to the marketplace.

- **Product Change:** An existing product, currently in the brand owner’s portfolio and available in the marketplace whose attributes have been changed.

3.3 GS1 standards and legal/regulatory compliance

The GTIN Management Standard represents a minimum requirement. Please be advised that there may be regulation(s) in your market area that are more stringent and SHALL be adhered to.

All local legal and regulatory requirements supersede the GTIN Management Standard.

3.4 GTIN Management Standard and brand owner discretion

The GTIN Management Standard represents the minimum GTIN changes that industry has decided upon. Brand owners may change the GTIN as often as they think is appropriate based upon their needs as well as the needs of their consumers and trading partners, considering the guiding principles defined in section 3.1.
4 GTIN Management Rules

Below are the details that define when a GTIN MUST be newly assigned (NEW PRODUCT) or changed (REPLACEMENT PRODUCT) in order to be in conformance with the GTIN Management Standard.

The GTIN Management rules define when GTIN changes are needed at the retail consumer trade item level (base unit) as well as on higher level trade items (e.g., case, pallet) that currently exist and are used in distribution processes.

Remember that all of the GTIN Management rules need to be taken into account when making the final decision of whether or not to change a GTIN.

These rules apply to ALL product changes, regardless of type of change (e.g. product upgrade; limited time ‘flow-thru’; seasonal repeated promotion, etc…)

**Note:** Every product change has an impact to the consumer and all changes, regardless of GTIN adjustment, should be communicated to your trade partners.

2.0.1 How to use this guide:

A ‘Snap shot” bar can be found at the beginning of every rule to visually identify which guiding principles and what product level is impacted.

If the Snap shot area is greyed-out, the rule does not impact that principle or packaging level.

**Example:**

![Snap shot example]

The above example shows that the rule was predominantly impacting Consumer perception, but not regulatory or supply chain and would also impact both the item and grouping level GTINs.

Furthermore, both visual and verbal examples are given to help readers assimilate and apply the rules to the product changes considered.
4.1 Rule #1: New product introduction

A "new product" is defined as a product that does not currently exist or has not been available for sale and is an addition to the brand owner's portfolio/is new to the marketplace.

**Any new product requires the assignment of a new GTIN.**

**Hierarchy levels of GTIN assignment**

- The GTIN is assigned at the retail consumer trade item or base unit level.
- A unique GTIN is assigned at every level of the packaging hierarchy above the retail consumer trade item/base unit level.

**Example business scenarios that require GTIN assignment**

- A mobile phone producer is adding a model with new features to its product offering.
- A product line is to include a flavour or aroma of a product that does not currently exist in the brand owner's portfolio, and will be an addition to other flavours or aromas in the portfolio.
- A product's packaging is in English and a Spanish-language-only version of the same product is created.
■ A seasonal modification where brand owner expects the consumer/trading partner to be able to uniquely order the product.

■ A new television model with new functionalities (e.g., WiFi and streaming capabilities).

■ A new jeanswear line includes various sizes of a particular style and colour of jeans (30x30, 30x32, 32x30, 32x32, etc.). Each style, colour and size variation is considered a unique product and is assigned a unique GTIN.

■ The vintage (year of production) of a bottle of wine changes such that it is recognised by the consumer as being of different quality than the previous year AND this wine is not handled as “flow-through” or commodity product, rather as a new and unique product.

4.2 Rule #2 : Declared formulation or functionality

“Functionality” is defined as the particular use or set of uses for which something is designed. “Formulation” is defined as a list of the ingredients or components used to create a trade item.

A change to the formulation or functionality that affects the legally-required declared (printed on pack) information on the packaging of a product and also where the brand owner expects the consumer or supply chain partner to distinguish the difference requires a new GTIN. Both conditions must be met requiring the assignment of a new GTIN.

Hierarchy level of GTIN change

■ The GTIN change must occur at the retail consumer trade item/base unit level.

■ A unique GTIN is assigned at every existing level of the packaging hierarchy above the retail consumer trade item/base unit level.
Example business scenarios that require GTIN change

- A product includes nuts, which introduces a new allergen which is a legally-governed declaration and must be distinguishable by the consumer.
- A change in formulation reducing sugar by 50% to make the trade item "low sugar".
- Ammonia (a potentially hazardous ingredient) is added to the formula which may cause an issue with how consumers/trading partners currently use or store the product.
- Previously frozen salmon is now sold as fresh salmon.
- 100% cotton now a cotton blend
- A 23w LED bulb is now a 26w bulb

Additional information

- New GTIN assignment is NOT required when declaring existing functionality that was previously present, but not declared on the package, and is now being marketed on new packaging.
- Local, national or regional regulations may require more frequent GTIN changes. Such regulations have precedence over the rules provided within the GTIN Management Standard.
4.3 Rule #3: Declared net content

"Net Content" is defined as the amount of the consumable product of the trade item contained in a package, as declared on the label, which may include: net weight, volume, count, units, pieces, etc.

Any change (increase or decrease) to the legally-required declared net content that is printed on the pack, requires assignment of a new GTIN.

Hierarchy level of GTIN change

- The GTIN change occurs at the retail consumer trade item or base unit level.
- A unique GTIN is assigned at every existing level of the packaging hierarchy above the retail consumer trade item/base unit level.

Example business scenarios that require GTIN change

- The declared number of diapers in a package of disposable diapers changes from a 14 to a 12 count.
- The declared net weight of a bag of salty snacks increases from 680 g (24 oz) to 794 g (28 oz).
- The declared count of the number of razors in a package changes from 4 to 6.
- A bonus amount of product is now included in the pack and in the declaration to the consumer. For example, a 4 pack (count) of lip balm is increased and is declared as a 6 pack (count) bonus pack. The additional product (2 count) is declared to the consumer (is now 6 count).
Additional information

- The requirement does not include any marketing declarations or suggestions that are for the consumer’s knowledge, but not directly related to pricing, brand, government regulations. For example: suggested serving size.

- Declared net content is what is used to develop shelf labelling and price per unit declared to the consumer. Accuracy and synchronisation is essential and failure to comply may result in a penalty.

- Local, national or regional regulations may require more frequent GTIN changes. Such regulations have precedence over the rules provided within the GTIN Management Standard.

4.4 Rule #4: Dimensional or gross weight change

A change of over 20% to a physical dimension, on any axis (height or width or depth), or gross weight, requires assignment of a new GTIN.

Hierarchy level of GTIN change

- The GTIN change occurs at the retail consumer trade item or base unit level.

- A unique GTIN is assigned at every existing level of the packaging hierarchy above the retail consumer trade item/base unit level.
Example business scenarios that require GTIN change

- The gross weight of a product increases by 50% from 0.34 kg (0.75 lb) to 0.68 kg (1.5 lb) due to a change in the packaging material from plastic to glass.
- The height of a box of laundry detergent changes by 40% from 7.6 cm (3 in) to 10.64 cm (4.2 in).
- A case or pallet orientation (there is no change to the item inside) may be changed such that one or more axis changes.

Additional information

- This part of the standard only applies to changes to the dimensions and the gross weight of a product. Any change to declared net content is governed by the rule on “Declared Net Content”.
- Frequent cumulative changes, without changing the GTIN, in avoidance of the 20% rule is an unacceptable practice. Trading partners should be notified about all dimensional changes. Cumulative changes might cause problems for trading partners and may obstruct the flow through of product.
- See the [GS1 GDSN Package Measurement Rules](#) for a consistent, repeatable process to determine measurements for a given product package.
- Local, national or regional regulations may require more frequent GTIN changes. Such regulations have precedence over the rules provided within the GTIN Management Standard.

4.5 Rule #5: Add or remove certification mark

A change to packaging to add a new, or remove an existing certification mark (e.g., kosher, UL or CE) that has significance to regulatory bodies, trading partners or to the end consumer, requires assignment of a new GTIN.

Hierarchy level of GTIN change

- The GTIN change occurs at the retail consumer trade item or base unit level.
- A unique GTIN is assigned at every existing level of the packaging hierarchy above the retail consumer trade item/base unit level.
Example business scenarios that require GTIN change

- Removal of a Halal or Kosher certification mark from a product's packaging.
- Addition of an “Energy Efficiency” logo provided by a government approved agency.
- Removal of a certification mark: ORGANIC.

Additional information

- For the purpose of interpretation of this rule, a certification mark is a symbol, logo or wording on a product that declares a product has met specific criteria and standards in formulation, harvesting, processing or manufacturing and that can be externally verified by a certification authority or agency which can be either a public or private authority.

**NOTE:** Certification marks should be assigned by a neutral third party, and is based on the product meeting certain criteria. Internally assigned or promotional marks (e.g. ‘Proud Sponsor of the Olympics‘ or ‘Blue Menu‘) are not considered certification marks, but rather marketing flags.

- Local, national or regional regulations may require more frequent GTIN changes. Such regulations have precedence over the rules provided within the GTIN Management Standard.

### 4.6 Rule #6 : Primary brand

The primary brand is the brand most recognisable by the consumer, as determined by the brand owner, and can be expressed as a logo and/or words.

*A change to the primary brand that appears on the trade item, requires assignment of a new GTIN.*
Hierarchy level of GTIN change

- The GTIN change occurs at the retail consumer trade item or base unit level.
- A unique GTIN is assigned at every existing level of the packaging hierarchy above the retail consumer trade item/base unit level.

Example business scenarios that require GTIN change

- The company’s primary brand name changes from “Old Edge Computers” to “Leading Edge Computers”.

Additional information

- Local, national or regional regulations may require more frequent GTIN changes. Such regulations have precedence over the rules provided within the GTIN Management Standard.

4.7 Rule #7: Time critical or promotional product

A change to a product that is being promoted (including packaging changes) for a specific event or date, impacting the required handling in the supply chain to ensure the trade item is available for sale during a specified time period, requires assignment of a new GTIN.

Hierarchy level of GTIN change

- No GTIN change is required at the retail consumer trade item/base unit level.
- A unique GTIN is assigned at every existing level of the packaging hierarchy above the retail consumer trade item/base unit level.
Example business scenarios where a unique GTIN at the higher level packaging (e.g., pack, case, pallet) are required:

- A free trial item (not identified with its own GTIN) is attached to an existing item for a promotional period, the declared net content of the original item is unchanged and packaging dimensions or the gross weight of the product are NOT changed by more than 20%.
- For a period of two months, holiday images are portrayed on a product. Holiday trees are added to a box of tissues.
- A unique product package is introduced for the “Back to School Season”.
- World Cup logos are added to product packaging for a limited time.
- For a period of time, a manufacturer attaches a $1 off coupon to a “Giant” size bottle of laundry detergent. The coupon is intended for redemption at time of purchase.
- A promotional version of a product is launched with "Special offer" printed on the packaging.

Additional information

- For time critical promotions, the GTIN for the retail consumer trade item/base unit level does not need to be changed, but for tracking in the supply chain, the case and pallet needs to be uniquely identified.
- Local, national or regional regulations may require more frequent GTIN changes. Such regulations have precedence over the rules provided within the GTIN Management Standard.

4.8 Rule #8 : Pack/case quantity
A change to the number of trade items in a case or a change to the quantity of cases in a pre-defined pallet configuration, requires assignment of a new GTIN.

Hierarchy level of GTIN change

- A unique GTIN is assigned at every existing level of the packaging hierarchy above the retail consumer trade item/base unit level.

Example business scenarios where a unique GTIN at the higher level packaging (e.g., pack, case, pallet) are required:

- A case configuration changes from containing 8 trade items to containing 12 trade items, the case needs to be uniquely identified.
- A pallet configuration changes from containing 12 cases to containing 16 cases, the pallet needs to be uniquely identified.

Additional information

- Local, national or regional regulations may require more frequent GTIN changes. Such regulations have precedence over the rules provided within the GTIN Management Standard.

4.9 Rule #9 : Pre-defined assortment

A pre-defined assortment is defined as a pack of two or more trade items that are combined and sold together as a single trade item (may also be referred to as a bundle).

A change, addition or replacement of one or more trade items included in a pre-defined assortment, requires assignment of a new GTIN.

Hierarchy level of GTIN change

- The GTIN change occurs at the retail consumer trade item or base unit level.
A unique GTIN is assigned at every existing level of the packaging hierarchy above the retail consumer trade item/base unit level.

Example business scenarios that require GTIN change

- A fragrance variety within a three pack of perfumes is changed and one of the bottles of fragrances is replaced with a new scent.
- A combination pack of shampoo and conditioner is changed to be shampoo and deep moisturising hair mask.
- A package containing multiple blue coloured shirts is changed and a yellow coloured shirt replaces one of the existing blue shirts.

Additional information

- The individual trade items included in the assortment are explicitly defined by the trading partners and carry their own, unique GTIN separate from the GTIN assigned to the assortment.
- Local, national or regional regulations may require more frequent GTIN changes. Such regulations have precedence over the rules provided within the GTIN Management Standard.

4.10 Rule #10 : Price on pack

‘Price on pack’ is defined as when the brand owner includes pre-pricing as part of the package graphics. This is not considered a price marked on a price ticket, sticker, hangtag or anything that could be removed from the package or product.

Any addition, change or removal of a price marked directly on the product package (not recommended), requires assignment of a new GTIN.
Hierarchy level of GTIN change

- The GTIN change occurs at the retail consumer trade item or base unit level.
- A unique GTIN is assigned at every existing level of the packaging hierarchy above the retail consumer trade item/base unit level.

Example business scenarios that require GTIN change

- The pre-printed price on a package changes from $3 to $2.
- A selling price of $8 is added to a product’s packaging.
- The Manufacturing Suggested Retail Price (MSRP) is set at $2.19 and is included in the packaging graphics.

Additional information

- There is a danger that the price declaration to the consumer (on the pack) is different to the price charged (price in retailer(s) system). Pricing legislation normally means that the price shown must equal (or be greater than) the price charged to the consumer. It is strongly recommended not to include a pre-printed price on pack due to these challenges.
- Local, national or regional regulations may require more frequent GTIN changes. Such regulations have precedence over the rules provided within the GTIN Management Standard.