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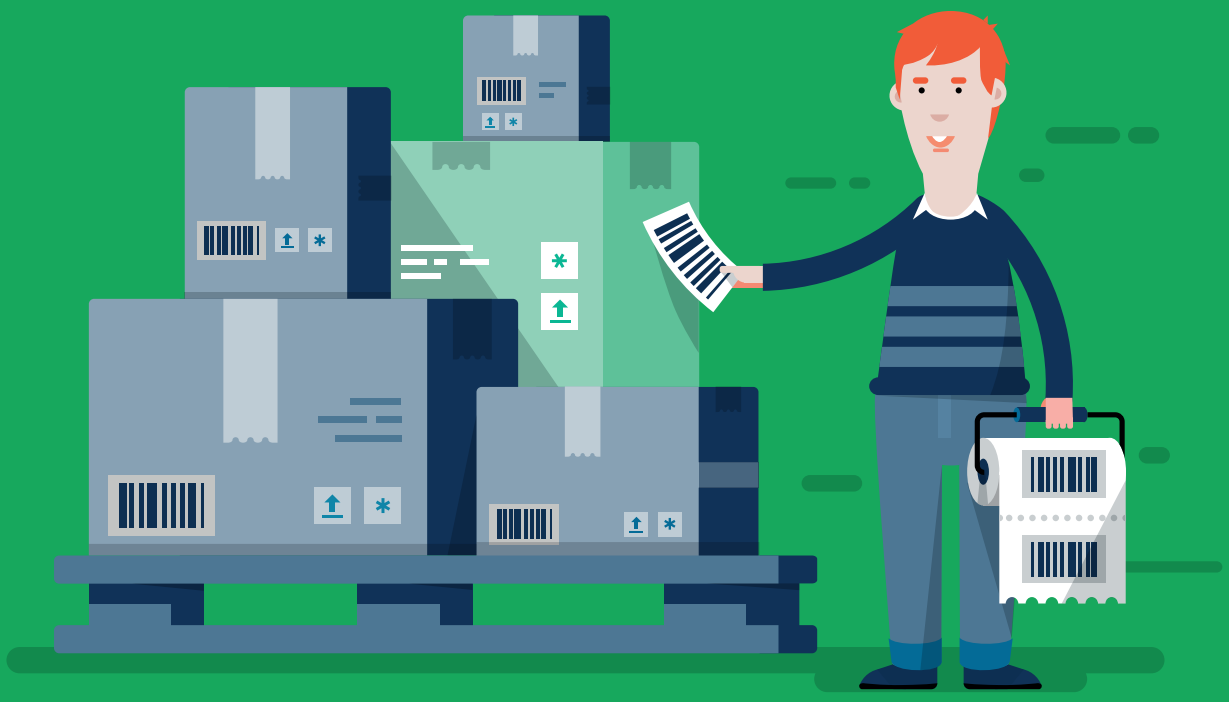

THE GS1 HANDBOOK

STILL & SSCC: Labelling Logistic Units

A Consumer Product Good (CPG) does not have a value unless it can move around the supply chain and reach the final consumer. This is why logistic service providers and carriers are so important in managing the internal and external goods flows for retailers, manufacturers and material suppliers. Trading partners are often faced with different business processes and identification solutions. And as a result, different label formats.

The Standard International Logistic Label (STILL) aims to replace confusing and repetitive labelling with a standard data structure, label design, and label placement standard. It is used to establish best practice in logistical unit labelling around the world, and the only requirement is that each logistic unit must be identified with a unique serial number, or **Serial Shipping Container Code (SSCC).**

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Introduction STILL and SSCC

STILL is fully compliant with GS1 specifications and aims for logistic traceability of logistic units that move along the supply chain. STILL is a common approach to identification and bar coding and serves as a worldwide reference point. It also prevents any successive relabeling that would otherwise occur along the supply chain.

STILL has been designed to provide best practice using GS1 Standards with further recommendations in the logistic and transport area. The objective is to define the best contents for the label(s) within the framework of the relationship between logistic services client (retailer or supplier), carrier and logistic services provider.

The SSCC on the other hand is the GS1 Identification Key used to identify a logistic unit and it is the only compulsory requirement for the logistic labels. Scanning the SSCC bar code on each logistic unit allows the physical movement of units to be matched with the electronic business messages that refer to them. This unique identifier is comprised of an Extension Digit, a GS1 Company Prefix, a Serial Reference, and a Check Digit.

The SSCC can be used for any logistic units that require individual identification, such as couriered parcels, beer kegs, or even a whole container load. The SSCC is also useful for internal pallet or unit identification when the load is put away or moved within a warehouse or business.

What are the benefits of using STILL?

Creating barcodes and labels may seem a never-ending process, and you might wonder why one barcode isn't enough to carry the information about your product. You are right, but selling a product and shipping it to other stakeholders in the supply chain are completely different things, and they need to be distinctly labelled to guarantee the safety of your items. Here are a few of the benefits of using the GS1 Logistic Label:

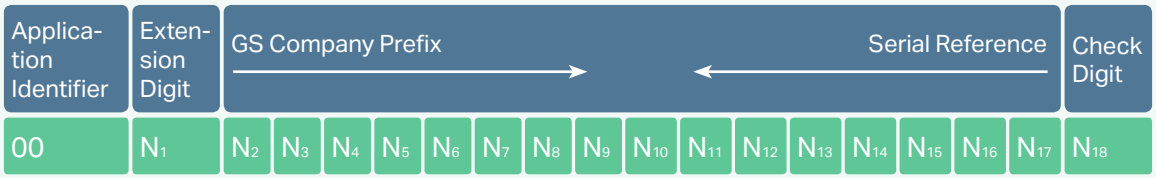
- Unique worldwide identification for the logistic unit
- Significant saving of time thanks to automatic data capture and shipment checking
- Faster, more precise and reliable information sent to the logistic service client during receipt thanks to label scanning
- Saving time and cost thanks to the elimination of labels successively applied by each actor in the supply chain
- Better information quality thanks to the removal of multiple instances of data capture for the same information
- Linkage with standard and international EDI messages thanks to the information contained in the message
- Full traceability all along the logistic chain thanks to compatibility with ISO/IEC 15459 often referred to as the 'ISO Licence Plate"

How is the **SSCC** formed?

When creating an SSCC, you can use your current GS1 company prefix, and do not need a new one.

Fun Fact: With a 7-digit GS1 Company Prefix, you can assign 10 billion SSCCs (1-digit Extension Digit 9-digit Serial Reference). With a 9-digit GS1 Company Prefix, you can assign 100 million SSCCs (1-digit Extension Digit 7-digit Serial Reference). That's a lot of shipments or logistics units that can be tracked!

The Applicator Identifer (00) indicates that the GS1 Application Identifer data field an SSCC. When printed in a barcode the correct symbology is GS1-128. It may also be encoded using an EPC tag.



Note SSCC is an 18-digit numerical number, including Check Digit. The combined lenght of the Extension Digit, GS1 Company Prefix, and Serial Reference will always total 17 digits.

APPLICATION IDENTIFIER (AI): AI 00 to indicate an SSCC

EXTENSION DIGIT: Used to increase the capacity of the Serial Reference within the SSCC. It is assigned by the company that constructs the SSCC and ranges from zero to nine.

GS1 COMPANY PREFIX: A globally unique number assigned to a GS1 member company. The length of your company prefix might change depending on your business needs.

SERIAL REFERENCE: The number allocated to identify a logistic unit. This is formed in a way similar to that of the item reference number for GTINs . It is assigned by the brand owner and it is suggested to have sequential numbers, and not any logical series, such as assigning even numbers for blue shirts.

The Serial Reference length varies as a function of the GS1 Company Prefix length.

Note: The combined length of the Extension Digit, GS1 Company Prefix, and Serial Number is always 17 digits.

CHECK DIGIT: A mod-10 algorithm digit used to check for input errors.

You can refer to this calculator to check your check-digit: here

How does the SSCC differ from GTIN?

Although SSCCs are distinctly different from GTINs, there can sometimes be confusion between the two codes and confusion about when to use which one. The major difference is that the SSCC acts as a license plate to track a shipment of logistic units through the supply chain, while the GTIN uniquely identifies trade items (products and services). The SSCC is only used in the transportation, distribution or warehouse environment and never at the point of sale. Any producer or supplier who wishes to ship their items for sale in a different location to the original production facility will need to use both codes.

Another commonly asked question is whether the GTIN should be included in the SSCC, but the answer is 'no'. GTIN information is included in the Advance Ship Notice (ASN) that is sent to the receiver of the product before shipment. The SSCC acts as a license plate number. That number is linked to the ASN and provides access to the GTIN information.

Suppliers should apply an SSCC with any shipping container that could be a case, carton, pallet, or air cargo container of trade items.

Creating a logistic label

Technical tips & best practices to start with

- GS1 specifies the minimum size of the barcode - the x factor - must be at least 32mm in height.
- You should put the SSCC at the bottom - it has to be the last barcode.
- Make the label as wide as possible as it will be easier to scan.
- It is also recommended to put human readable text in a big font. If the barcode can't be scanned, the information will need to be entered by the operator.
- Minimize or completely remove the company information.

Tip Use horizontal lines as in the example below to see if the print-head works properly. If the horizontal line is broken, it is probably an error on the print head and chances are that the barcode will not be encoded properly, which can delay product delivery.

Label structure

The logistic label usually consists of three sections, each representing a group of information for the attention of: Supplier, Customer and Carrier. A label could be designed in multiple ways, but the example below is a good alternative.

The GS1 pallet label includes two core sections. The optional top section includes shipping information about the shipper and the consignee. The structure is free and may include company information, but it's not required by the standard.

The bottom block includes a human readable (text) explanation of the label data and the barcode representation of the same data.

The SSCC is the only barcode required by the standard, but it's customary to include a GS1-128 barcode with the GTIN, order number, batch number, expiration date, and other relevant data about the products contained within the logistical unit.

Expert note: The difference between Code128 and GS1-128 barcode is the FNC1 character. Professional labelling software such as NiceLabel makes sure there is proper encoding. The rest is set when you select the GS1-128 barcode.Reference). With a 9-digit GS1 Company Prefix, you can assign 100 million SSCCs (1-digit Extension Digit 7-digit Serial Reference). That's a lot of shipments or logistics units that can be tracked!

Information	Applicator Identifier (AI)	Format	Data Title
*GTIN	01	n2 + n14	GTIN
*GTIN of trade items containedin a logistic unit	02 always vith AI 37	n2 + n14	CONTENT
Count of Trade Items Contained in a Logistic Unit	37 always vith AI 02	n2 + n..8	COUNT
Batch number	10	n2 + n..20	BATCH/LOT
*Best Before date (YYMMDD)	15	n2 + n6	BEST BEFORE or SELL BY
*Expiration Date (YYMMDD)	17	n2 + n6	USE BY or EXPIRY
Product Variant	20	n2 + n2	VARIANT

The optional label data included in the GS1-128 barcode includes a number of different data types. Each data title is assigned an application identifier by the GS1 data standard, and the data in the barcode is separated by bracketed identifiers. The GTIN data, for example, is preceded by (01).

For pallets where multiple trade items are present on the pallet, the identifiers 37 and 02 are commonly used, as they identify the type of product and the number of trade items present on the pallet. This lets the consignee log receipt of the pallet without having to unpack and count the quantity of received goods.

Label dimensions

While several GS1 logistic label sizes are acceptable, GS1 does not recommend using sizes smaller than A6. Smaller labels mean smaller barcodes, and this makes the labels harder to read with a barcode reader and more vulnerable to environmental damage.

If space on the logistical unit permits, use A4 or A5 labels, in portrait or landscape format.

Positioning of labels on the pallet

The positioning of GS1 logistic labels on pallets depends on the shape of the products on the pallet, pallet height, whether stacked pallets include various shipping units, and whether or not the products or complete pallet are wrapped.

It's always a good practice to avoid placing labels on the bottom edge of the shipment. Such labels are more exposed to environmental damage during transport. Also, the fork assembly of a forklift will prevent the forklift operator from scanning such a label once the pallet is picked up by a forklift.

You can refer to this video by GS1 Australia for more information on label placement.

Conclusion

SSCC, similar to that of the GTINs, ensures traceability and safety of products and logistic units, while setting a worldwide reference point for communication. The logistic label is the tool carrying this integral information across supply chains and needs to be GS1-compliant and errorless, every time.

NiceLabel's solutions are equipped with features to ensure GS1 compliance and optimizes your label creating process by pre-installed standard label structures, label data, dimensions and positioning features.

Start using our online label printing solution now

- GS1 symbology is broken down so the user knows the structure of the data they need to enter
- Optional label data are included (most commonly used application identifiers come handy)

Learn This ebook is the third one of a series of 3. Learn more about the GS1 standards, steps to creating and checking the quality of your barcodes and verifying them, in ebook number 1: The GS1 Handbook: How To Barcode Your Product. If you need to know how to create GTIN's for your trade items, learn more about this in ebook number 2.

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