GS1
UK

How to...

...create and use Global Location Numbers (GLNs)

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A Global Location Number (GLN) is a unique number that is assigned to locations to enable them to be identified uniquely worldwide. These GLNs can be used to identify any legal, physical and functional locations.

GLNs are reference keys to computer files where information about the company or location can be found. The GLNs replace the names and addresses of locations and are particularly useful when automating processes; they allow computers to route information to the correct destination with no manual involvement.

GLNs must be used when identifying locations and trading partners within Electronic Data Interchange (EDI) business messages and data pools, and they can also be used in barcodes to identify a physical location or to provide relevant information for delivery or invoicing purposes.

Benefits

GLNs can be used to identify any locations that you need to be uniquely identified for administrative and trading purposes. These can be both internal locations, and locations that your trading partners will use. GLNs provide a single method for location identification for all companies in the supply chain, thereby removing the unnecessary costs and errors inevitable when many different schemes co-exist.

GLNs can:

- Enable the unique and unambiguous identification of all worldwide locations

- Be allocated to any location in the supply chain

- Be shown in GS1-128 barcodes

- Be used within electronic business messages, and to identify all the parties using data pools

- Facilitate accurate and automatic processing

- Simplify data processing and reduce transmission costs and data storage costs for messages

What can GLNs identify?

GLNs can identify the following types of location:

- **Legal entities** – any legal or operational entity, such as a company, its subsidiaries, buyer, seller or operating division

- **Physical locations** – any specific location with a physical address, such as a shelf, loading dock, goods in delivery point, a warehouse, a room within a building

- **Functional locations** – any virtual address such as a network address for use with electronic business messages

As a member of GS1 UK, you can use your GS1 Company Prefix to create GLNs that can be allocated to your own locations or long-term leased locations. A separate number is required to identify each different location or party to ensure uniqueness.

Creating GLNs

A GLN is a 13-digit number formed using your GS1 company prefix number. The number contains no information about the location but provides a link to systems where the information is held.

You, as the company assigning the GLN, are responsible for ensuring their uniqueness. **Obsolete GLNs can be reassigned three years after they were last used to identify any other location.**

The 13-digit numbers are created as follows:

GS1 Global Location Number (GLN)			
GS1 Company Prefix number example	**Location reference element example**	**Check digit**	**Number of GLNs that can be created**
5012345	00000	8	100,000
50551234	0123	9	10,000
506001234	999	8	1,000

Like all other GS1 Identification Keys such as Global Trade Item Numbers (GTINs), GLNs have no meaning and should always be used in their entirety within companies' systems. No user should ever attempt to parse the number into its components to reveal any meaning, because it is designed to be used as a reference point and not as a miniature database.

- **GS1 Company Prefix:** This will be assigned to you by GS1 UK, and will vary in length from six to nine digits

- **Location reference:** This is assigned by you, and we recommend that you begin with zeroes and increase the count sequentially. The numbers have no meaning

- **Check digit:** This is calculated using the first twelve digits of the number. A check digit calculator is available in the Tools & Resource menu when you login at **www.gs1uk.org**.

GLNs and GTINs

GLNs and GTINs are formed from your GS1 Company Prefix so the numbering series are identical. This means it is extremely important that GTINs and GLNs are held in separate database records. They are always used in context so there should be no confusion in practice. GLNs and GTINs are communicated in different fields within electronic business messages, and when they are encoded in barcodes, the use of GS1 application identifiers ensures that the data is understood and processed correctly.

Associated data

You need to communicate the details about each GLN to your trading partners before they are used. These details will be stored on file and retrieved each time the GLN is communicated.

For example, the information about a location identified with a GLN will often include:

- Company name and postal address

- Contact details

- Type of location, such as manufacturing centre or distribution centre

- Financial information – bank details and payment terms

- Delivery requirements and or restrictions.

The owner of the location can also provide additional information to assist the trading process such as:

- Exact location, for example, room number, entrance number, bay number

- Facility specification, such as operating hours, time zone

- Supported functions covered by the GLN such as order placements, receipt of invoices, receipt of merchandise, collection etc.

When to change a GLN

Every location should be identified with a different GLN, and when a communicated attribute to the GLN changes, such as the address, then a new GLN should be assigned. The GS1 General Specifications provide full details about the rules concerning the administration of GLNs, and these can be accessed on our website at **www.gs1uk.org/standards**. You will also find the GLN allocation rules here.

Using GLNs in communications

Electronic Data Interchange (EDI)

The use of automatic electronic business messages ideally incorporates the use of GLNs to identify all the trading partners and all the locations involved. The mailbox or network addresses for the companies will also be identified with GLNs.

The electronic business messaging standards promoted by GS1 UK - GS1 EANCOM and GS1 XML – make full use of GLNs to simplify their use.

The GLNs and the associated information are communicated once at the beginning of the trading relationship, and the EANCOM PARTIN (party information) message is designed for this purpose. Locations can then be identified by their number in other electronic business messages.

Data pools and the Global Data Synchronisation Network (GDSN)

GDSN-compliant data pools and the Global Registry that links them are being used to record information about all the products being traded and the GTINs that are used to identify them. Each party that provides information to any data pool, or who requires information about products and locations, must be identified with a GLN.

Use with barcodes

GLNs can be encoded in GS1-128 barcodes when necessary, for example to identify delivery points or warehouse locations. The use of the GS1 application identifiers with GS1-128 barcodes ensures that the data shown in these barcodes is processed correctly.

The application identifiers that may be used with GLNS are set out below:

Application Identifier (AI)	Type of Global Location Number (GLN) being identified
410	Ship to - deliver to GLN
411	Bill to - invoice to GLN
412	Purchased from GLN
413	Ship for - deliver for - forward to GLN
414	Identification of physical location
415	Invoicing party

Additional support

Further information can be found at **www.gs1uk.org/standards**
Our Member Support Team can also help you with any query.

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