



Initiative to associate UN/LOCODE with GS1 GLN



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GS1 is a global standards organization

GS1 is a neutral, not-for-profit organisation that develops and maintains the most widely used global standards for efficient business communication.

- Local Member Organisations in 116 countries
- 10 billion GS1 barcodes scanned daily
- 1 billion products carry GS1 barcodes
- More than 2 million companies use GS1 standards
- Partners with ISO, CEN, UNECE, IATA, FIATA, W3C, ...





What is a Global Location Number (GLN)?

Global Location Number is the **GS1 identification key** that is used to answer ‘**where**’ and ‘**who**’ in business.

GS1 has keys to identify trade items, logistic units, documents, assets, and more-

In the case of GLN, **locations** and **parties** are identified.





Global versus Local GLN registry



Continent	Country	Sub Region	UN/LOCODE - Name
<input type="checkbox"/> Africa <input type="checkbox"/> Oceania <input type="checkbox"/> Antarctica <input type="checkbox"/> South America <input type="checkbox"/> Asia <input type="checkbox"/> Europe <input type="checkbox"/> North America	<input type="checkbox"/> India <input type="checkbox"/> Algeria <input type="checkbox"/> Netherlands <input type="checkbox"/> American Samoa <input type="checkbox"/> Afghanistan <input type="checkbox"/> Andorra <input type="checkbox"/> Aland Islands <input type="checkbox"/> Angola <input type="checkbox"/> Albania <input type="checkbox"/> Anguilla	<input type="checkbox"/> Zuid-Holland <input type="checkbox"/> New York	<input type="checkbox"/> NLRJM - Rotterdam <input type="checkbox"/> USRAJ - Rotterdam <input type="checkbox"/> USRJN - Rotterdam Junction

Enter GLN ID	Alternate Type	Alternate Code - Name
	<input type="radio"/> BIC <input type="radio"/> IATA <input type="radio"/> Port Facility Code <input type="radio"/> SMDG	<input type="text"/> <input type="button" value="Search"/>

GLN: 8721023274446
UN/LOCODE: NLRJM
Alternate Code: DIVO [BIC]
Location Name: APM II TERMINAL ROTTERDAM
GeoCoordinates: 5157N 0041E

Verify Product Search by Global Trade Item Number (GTIN)	Verify Location/party Search by Global Location Number (GLN)	Verify other keys Search by other keys	Find company Search by company name and country
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Example search: 9506000140445

This number is registered to **Testrelatie Standaardisatie GS1**

Company information

Information about the company that licenced this GLN

Company Name	Testrelatie Standaardisatie GS1
Address	1180 VX Stroombaan 16 Amstelveen Netherlands (the)
Website	Unknown
License Key	87208922783
License Type	GS1 Company Prefix
Global Location Number (GLN)	8720796047004
Licensing GS1 Member Organisation	GS1 Netherlands

License information was provided by GS1 Netherlands and was last updated on 28 Jan 2024.





Making sense of the Location identifier plethora

- Each identifier scheme has its own merits and disadvantages
- For that reason, people will continue to use those identifier schemes
- Port of Rotterdam found that a single location may be identified with **over two dozen different location identifiers**
- Clearly, that creates a lot of confusion among stakeholders because most (if not all) stakeholders do **not** know all of those identifiers for that specific location.

Connections among the identifier schemes must be made to reduce the pandemic confusion about locations that exists today

- The data associated with the identifiers must also be easily findable and accessible so stakeholders may get to the latest and most reliable location information.





Conas Global Location Number Database



Jaco Voorspuij
April 15th 2024





What we did

- Making Location Data from **UN/Locodes, IMO Port Facility, BIC, SMDG, IATA** and other location databases **easily findable in a single place.**
- Assigning a GS1 Global Location Number **as a common system-to-system identifier** across all stakeholders in addition to the existing codes
 - Covering physical business locations regardless of the type of location e.g., port, terminal, inland terminal, warehouse, cross-dock etc. wherever they may be in the world.
 - Connecting hinterland operations with maritime & terminal operations
 - Linking to the source data where possible (avoiding “stale” data).
 - Avoiding confusion about WHERE in Supply Chain operations

Free-of-charge functionality to enable performance improvements in Maritime and Transport operations





Run Demonstration

Global Location Number service

Continent

Search

- Africa
- Antarctica
- Asia
- Europe
- North America
- Oceania
- South America

Country

Search

- India
- Netherlands
- Afghanistan
- Åland Islands
- Albania
- Algeria
- American Samoa
- Andorra
- Angola
- Anguilla
- Ant...
- Ant...
- Arg...
- Arn...
- Aru...

Sub Region

Search

- Eastern Cape
- Noord-Holland
- Drenthe
- Missouri
- New York
- No Region Exist
- Commewijne

UN/Locode - Name

Search

- ZAZAE - Amsterdam
- NLAMS - Amsterdam
- NLNAM - Nieuw-Amsterdam
- US774 - Amsterdam
- USAMS - Amsterdam
- GYNAM - N...
- SRNAM - Ni...

Enter GLN ID

Alternate Type

- BIC
- IATA
- Port Facility Code
- SMDG

Alternate Code - Name

Search





Next steps

- Upload more data-sets
- Improved user experience
 - Add functionality & features
 - Add missing Geo-coordinates
 - Add missing subregions
 - Resolve Data quality issues
 - Improve & visualize relationships & hierarchy between records
 - Linked data to original data sources

We performed some data enrichment and cleansing on the UN/locode data of India & The Netherlands
We would like to work together with you on this





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Thank You





Backup





Identify: GS1 Standards for Identification

GLN Global Location Number **SSCC** Serial Shipping Container Code **GIAI** Global Individual Asset Identifier
GTIN Global Trade Item Number **GRAI** Global Returnable Asset Identifier **GSRN** Global Service Relation Number



Capture: GS1 Standards for Barcodes & EPC/RFID

GS1 Barcodes



Share: GS1 Standards for Data Exchange

Master Data Global Data Synchronisation Network (GDSN) **Transactional Data** EDI **Event Data** EPC Information Services (EPCIS)





Making sense of the Location identifier plethora (1)

- Locations may be identified using a plethora of identifiers.
- Over the centuries, various groups of people have agreed different ways to identify WHERE a location of common interest is on the globe.
- Some of the most common Identifiers are
 - **Direct identifiers** that direct place the location on the map e.g., Postal Address, geocoordinates, geo-shapes, geocodes
 - **Indirect identifiers** that enable access to records containing the direct info. These may be subdivided in so-called
 - **intuitive identifiers** that people can remember (easily) e.g., UN/Locodes, IMO Port Facility codes, SMDG codes, IATA airport codes, UPU IMPC, What3Words (global) as well as the many regional, domestic and even purely local identifiers.
 - **Non-intuitive identifiers** that people cannot remember easily. Those identifiers are generally mostly used in communications between IT-systems. E.g., GS1 GLN, GNIS and GNS codes





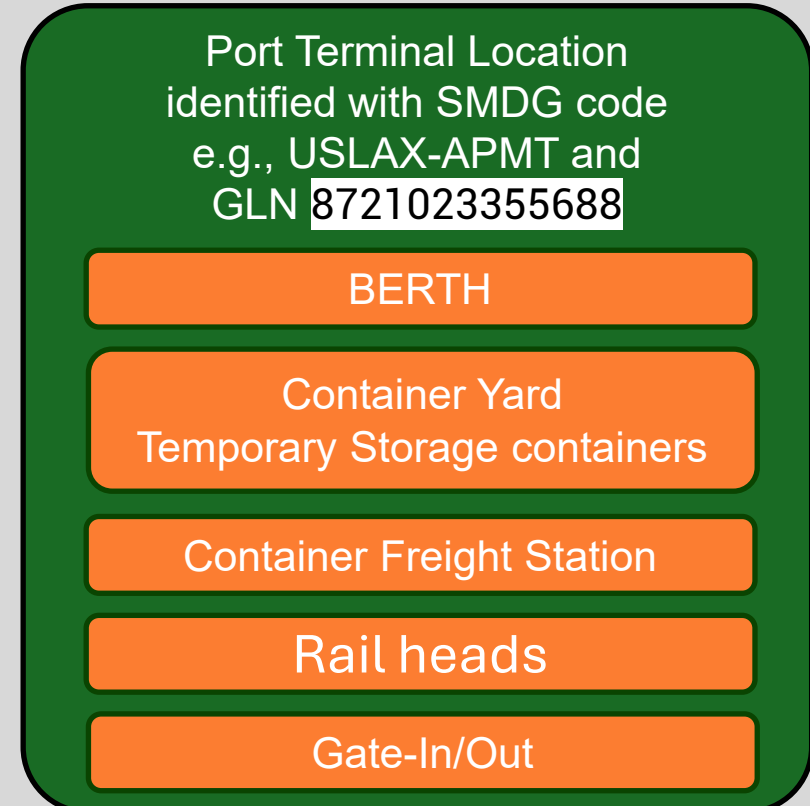
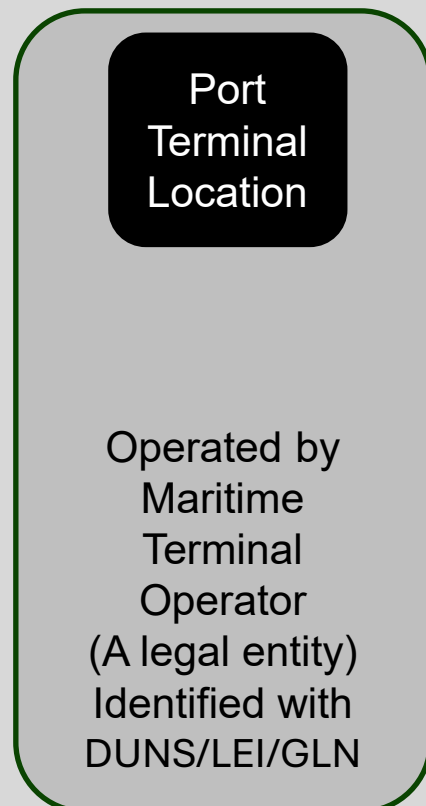
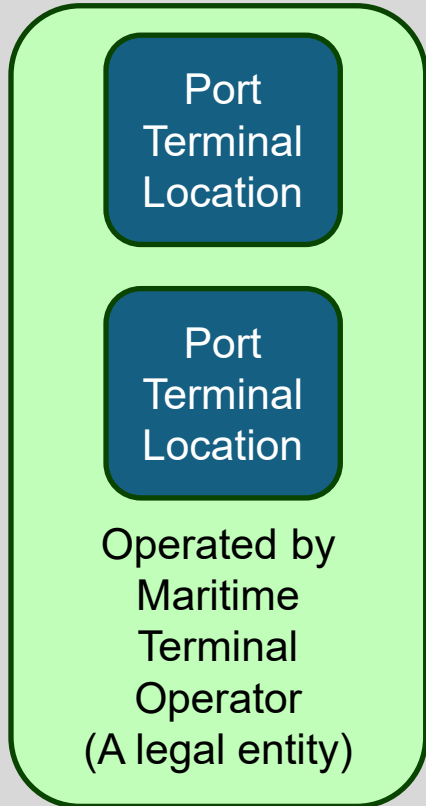
GS1 Global Location Numbers (GLN) – support relations between Locations/Organisations

- Location to other location
 - Contained in Place (smaller Locode area referring to larger Locode area; e.g.; Maasvlakte -> Rotterdam; ???? -> Hamburg)
 - Replaced by (legacy code superseded by a new/current code)
- Location to organisation
 - Operated by (Terminal operated by a specific Terminal Operator)
 - Owned by (Terminal land owned by Port Authority)
 - Leased from (Terminal leased from Port Authority)
- Organisation to other organisation
 - Parent Organisation (indicating the next level up in the organisational hierarchy)
 - Owned by (Terminal land owned by Port Authority)
 - Replaced by (legacy code superseded by a new/current code)





Port Area (managed by a Port Authority; legal entity, maybe public or private)
 Generally identified with a so-called UN/Locode (e.g., USLAX) or GISIS code (USLAX-0001)





Port Terminal Location identified with
GISIS (IMO Port facility) code e.g., NLRTM-0071
and GLN 8721023357095

BERTH – NORTH (SMDG=DDN; GLN=8721023346273)

BERTH – EAST (SMDG=DDE; GLN=8721023346341)

Barge Feeder terminal (SMDG=DBF; GLN=8721023346259)

Container Yard – Area for temporary storage of containers
May be sub-divided into “operational” areas
(NEVER SMDG; individual GLN may be assigned for the yard and each operational area)

Container Freight Station (building)
(NEVER SMDG; GLN may be assigned)

Rail head/s (NEVER SMDG; GLN may be assigned)

Gate-In/Out (SMDG=DCD; GLN=8721023346266)

