

Associated Work Request (WR) Number:

18-318 Continuous Improvement Program Gen Specs v19

Background:

Section 1.1 contains some 'old' text that in the meantime has become obsolete, incomplete or otherwise incorrect.

This GSCN is submitted under the Gen Specs continuous improvement program of the ID SMG. This program has been running since 2014, with the purpose of initiating incremental structural improvements in each yearly release of the Gen Specs.

GS1 General Specification Change:

The recommended changes are highlighted below, relative to GS1 General Specifications version 18.

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GS1 General Specifications

1.1 The GS1 General Specifications

1.1.1 Introduction

The GS1 system originated in the United States and was established in 1973 by the Uniform Product Code Council, <u>subsequently</u> known <u>until recently</u> as the Uniform Code Council, Inc. (UCC) and since 2005 as GS1 US. The UCC originally adopted a 12-digit identification number, and the first ID numbers and barcodes in open trade were being scanned in 1974. Following the success of this U.P.C. system, the European Article Numbering Association, <u>subsequently</u> known as EAN International, <u>but launched as GS1 in 2005</u>, was established in 1977 to develop a compatible system for use outside North America. The EAN system was designed as a superset of the UCC system and principally used 13-digit numbers. As a consequence of using certain barcodes and data structures, the GS1 system has expanded. In February 2005, GS1 was officially launched as the successor to the organisations previously known as EAN and UCC, and the system became known under its current name: The GS1 system.

The GS1 system of standards aims to raise the efficiency of business processes and to provide cost savings through automation based on globally unique identification and digital information.

The GS1 system provides for the use of unambiguous <u>identification keysnumbers</u> to identify goods, services, assets, <u>and-locations, etc.</u> worldwide. These <u>numbers keys</u> can be represented in <u>data</u> carriers, which could be barcodes or EPC/RFID tags to enable automatic scanning or reading. They may also be used in electronic communications, improving speed and accuracy when sharing master data, transactional data and visibility event data.barcodes to enable their electronic reading wherever required in business processes.

The <u>GS1</u> system is designed to overcome the limitations of using company_, organisation_, or sector_-specific coding systemsinterfaces., It enables large scale deployment, flexibility in the selection of the most suitable system components and innovation – ultimately makingand to make tradeing much more efficient and responsive to customers.

These identification numbers are also used in Electronic Data Interchange (EDI), XML electronic messaging, Global Data Synchronisation (GDSN), and GS1 Network Systems. This document provides information about syntax, assignment, allocation and Automatic Data Capture (ADC) standards for GS1 identification numbers.

In addition to providing unique identification numbers, the GS1 system provides for supplementary information, such as best before dates, serial numbers, and batch numbers. Changes take place only after wide consultation and are subject to a significant migration period.

By following the principles and design of the GS1 system, users can design applications to process GS1 system data automatically. The system logic guarantees that data captured from GS1 endorsed barcodes produces unambiguous electronic messages, and processing can be fully pre-programmed.

The GS1 system is designed for use in any industry or trade sector, and any changes to the system are introduced in a way that does not disrupt existing users as not to negatively affect current users.

In February 2005, GS1 was officially launched as the successor to the organisations previously known as EAN and UCC. This document <u>defines the rules for is the concise definition and</u> explanation of the use of the GS1 system standards within Automatic Identification and Data Capture (AIDC) <u>applications and</u> technologies. <u>It</u>, and supersedes all previous AIDC technical documents provided and/or published by GS1 or its predecessor organisations. The document takes immediate effect as the agreed GS1 foundational standards including Application, Identification, and Data Carrier components and principles. Every organisation using the GS1 system standards is requested expected to conform fully to the GS1 General Specifications.

1.1.2 Who should read these specifications

The GS1 General Specifications are the foundational GS1 standard that defines how identification keys, data attributes and barcodes must be used in business applications.

The primary audiences of the *GS1 General Specifications* are <u>GS1 Member Organisations</u> and technically oriented users and suppliers staff members of companies, solution providers and <u>GS1 Member Organisations</u>.

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These specifications provide a global reference document covering all technical aspects of the GS1 system. Their primary objective is to define the international standard upon which individual GS1 Member Organisations can develop user documentation. They standard is are maintained in English and may be translated into local other languages by local GS1 Member Organisations.

1.1.3 Foundational standard

These GS1 General Specifications are used as a foundation for other GS1 standards and services such as:

- GEPIR
- GS1 Cloud
- GDSN and GS1 Source.
- GS1 EDI (Electronic Data Interchange), including the GS1 EANCOM® and GS1 XML standards.
- GS1 EPCIS

The definitions in the GS1 General Specifications are the basis for the GS1 glossary.

1.1.4 Maintenance responsibility and management

The GS1 Global Standards Management Process (GSMP) is the mechanism to approve the adoption of additions and changes to the *GS1 General Specifications*. The process is fully defined in the *Global Standards Management Process Manual*.

1.1.5 The Barcodes & Identification Technical Group (BCID TG)

The Barcodes & Identification Technical Group (BCID TG) provides advice and guidance from the solution provider community regarding practical implementation issues and technical applications. In addition, BCID TG provides expertise for testing and trial implementations.

<u>1.1.6</u><u>1.1.5</u> Verbs used in normative statements

In GS1 standards, normative statements are written using the verbs defined per the <u>GS1 Style</u> <u>Guide</u>. These include the verbs SHALL, SHALL NOT, SHOULD and SHOULD NOT. When these words are written in a normative statement, using the special meanings defined, they are written in all capitals to distinguish them from ordinary English use of the same words.

For a precise definition of these verbs, see the *GS1 Style Guide*. Briefly, their meanings are summarised as follows:

- SHALL means that all conforming implementations must do what the statement says, otherwise the implementation is not conforming. No deviation is permitted.
- SHOULD means that among several possibilities one is recommended as particularly suitable for a conforming implementation, without mentioning or excluding others. In other words, a conforming implementation is expected to do what the statement says, but might not if there is a good reason not to. It is similar to a MAY statement, but carries a stronger expectation that an implementation will usually do what the statement says.

1.2 GS1 system principles

The GS1 system embodies an open architecture approach. It has been carefully designed for modular expansion with minimal disruption to existing applications. Enterprise Resource Planning (ERP) and other supply chain application software drive implementation of the system. New user driven applications can be expected, and this document will be updated accordingly.

The maintenance of these specifications will be the responsibility of GS1 and will be in line with the <u>GS1 Architecture Principles</u>.

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