

Document Summary

Document Item	Current Value
Document Name	GS1 Style Guide
Document Date	2-Apr-2015
Document Version	4.1
Author	Mike Mowad
Document Status	Draft
Document Description	Sets rules and conventions for grammatical style, naming conventions, figure and table use etc. to improve the quality and consistency of all GS1 documentation

Log of Changes

Release	Date of Change	Changed By	Summary of Change
1	Sep 2006	M. Mowad	Initial Version
1.1	March 2007	M. Mowad	Corrected incorrect links to external documents Section 16: Changed information on Cross-references for the GS1 General Specifications manual.
1.2	April 2006	M. Mowad	Updated Section 2 with modified versioning strategy Changed the name in Section 3 to Document Versioning and updated with modified versioning strategy
1.3	Dec 2007	M. Mowad	Section 3.1 – fixed typos Sections 2 and 3 – Updated BMS Procedures and reorganized the sections
1.4	Nov 2008	M. Mowad	Section 27.4 – Updated the measurement section per CR-07-306.
2.0/3.0	Mar 2010	M. Mowad	Added or modified the following sections to support EPC Documents: <ul style="list-style-type: none"> ■ Section 2.- updated “File Naming Conventions” ■ Section 3 – updated “Issuing and Dating” Technical Documents ■ Section 25.2 - Added instructions on how to indicate “Non-Normative” text ■ Section 27 (new) – added section on “Open Issue” text
3.1	Oct 2010	M. Mowad	Section 5.4 – added an example of Related GTIN numbers
3.2	Jan 2011	M. Mowad	Updated the list in Section 9 (GS1 Keys) to be more current
4.x	Sep 2014	D. Buckley M. Mowad	Updates new GS1 Branding Guidelines (logo, capitalisation rules, etc.), Section 8 (Disclaimer), GS1 Architecture Recommendations in Section 20 (Conformance language in GS1 standards) and other minor updates (e.g., Section 9 (GS1 Keys), etc.

Release	Date of Change	Changed By	Summary of Change
4.0	Dec 2014	D. Buckley M. Mowad	Update following GSMP Community Review comments, logical restructuring of section order, removal of outdated examples using EAN.UCC and improved presentation of new GS1 branding terms.
4.1	Mar 2015	D. Buckley M. Mowad	<p>Added or modified the following based on new word template:</p> <ul style="list-style-type: none"> ■ Section 3.3 – updated “Issuing and dating” technical documents ■ Section 3.6.- updated “File naming conventions” ■ Section 3.18 (new) - listing contributors ■ Section 3.19 (new) – change log ■ Section 3.20 (new) – inserting images

Disclaimer

THIS DOCUMENT IS PROVIDED “AS IS” WITH NO WARRANTIES WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT, FITNESS FOR PARTICULAR PURPOSE, OR ANY WARRANTY OTHERWISE ARISING OUT OF THIS SPECIFICATION. GS1 disclaims all liability for any damages arising from use or misuse of this Standard, whether special, indirect, consequential, or compensatory damages, and including liability for infringement of any intellectual property rights, relating to use of information in or reliance upon this document.

GS1 retains the right to make changes to this document at any time, without notice. GS1 makes no warranty for the use of this document and assumes no responsibility for any errors which may appear in the document, nor does it make a commitment to update the information contained herein.

Table of Contents

1	Introduction	6
1.1	Purpose	6
1.2	Important changes that impact existing documentation	6
2	Applicable to all GS1 documentation.....	9
2.1	British English spelling rules	9
2.2	Terminology rules	9
2.3	Capitalisation rules.....	10
2.3.1	Capitalisation of terms.....	10
2.3.2	Capitalisation in acronyms	10
2.3.3	Capitalisation of Section, Chapter, Appendix, Table and Figure	10
2.3.4	Capitalisation of GS1 keys.....	11
2.4	Document title formatting in running text.....	11
2.5	Abbreviation and symbol rules	11
2.5.1	Acronyms	11
2.5.2	Use of symbols	12
2.5.3	Dates	12
2.6	Punctuation and grammar rules	12
2.6.1	Hyphens in compound words.....	12
2.6.2	Prefixes and suffixes	13
2.6.3	Spacing	13
2.6.4	Use of "a" versus "an"	13
2.6.5	Use of "may" versus "can"	13
2.6.6	Use of "that" versus "which".....	13
2.6.7	Using "e.g."	13
2.6.8	Using several examples in running text	14
2.6.9	Do not use comma before "and"	14
2.6.10	Parentheses with GS1 Application Identifiers.....	14
2.7	Bulleted lists.....	14
2.8	Numbered lists	15
2.8.1	Rules for writing multiple-step procedures	15
2.8.2	Using commands in multiple-step procedures.....	15
2.9	Units of measure.....	16
2.9.1	Country codes	16
2.10	Number/digit rules	16
2.10.1	Number values	16
2.10.2	Data structure numbering.....	17
2.10.3	Numbers under and above 10	17
2.10.4	Group of related numbers.....	17
2.10.5	Numbers that begin a sentence	17
2.10.6	Specific number values.....	17
2.10.7	Unrelated numbers that appear side by side.....	17
2.10.8	Rounding numbers.....	17
2.10.9	Numbers used in currency	18
2.10.10	Numbers used to represent time.....	18
2.11	Terms to reference parenthetically	18

3	Specifics for GS1 technical documentation	19
3.1	Fonts and styles defined by the templates.....	19
3.2	Document and trademark disclaimer	19
3.3	Issuing and dating technical documents.....	19
3.4	Conformance language in GS1 standards	20
3.4.1	Identifying what may conform.....	20
3.4.2	Conformance levels and options	22
3.4.3	Wording of normative statements	23
3.5	Section title numbering rules	24
3.6	File naming conventions.....	24
3.7	Using notes	24
3.7.1	Using regular notes.....	25
3.7.2	Using "Important" notes	25
3.8	Footnotes.....	25
3.9	Hyperlink and cross-reference rules.....	25
3.9.1	Cross-references to a section within document	25
3.9.2	Cross-references to an external document	25
3.9.3	Cross-references to multiple locations	26
3.9.4	Wording of hyperlinks and references	26
3.10	Figures and tables.....	26
3.10.1	Figure and table caption formatting.....	26
3.10.2	Figure and table numbering	27
3.10.3	Figure and table numbering in the GS1 General Specifications.....	27
3.11	Migration rules for ancillary document names	28
3.12	Open issue text.....	28
3.13	Data structure positioning rules	28
3.13.1	Data structure labelling	28
3.14	Appendix rules.....	28
3.14.1	Placement.....	28
3.14.2	Appendix numbering	28
3.15	Use of the term U.P.C.	28
3.16	Rounding rules for barcode symbols	29
3.16.1	Precision rule for X-dimensions (modules)	29
3.16.2	Precision rule for symbol widths and heights	29
3.16.3	Rounding rule.....	29
3.16.4	Conversion rule for inches to millimetres	29
3.16.5	Conversion rule for millimetre to inches.....	29
3.17	Business process modelling methodology	30
3.18	Listing contributors.....	30
3.19	Change log.....	30
3.20	Detailed editing notes should be deleted and replaced with a concise summary of approved changes since the last release (to discuss, can log of changes be changed after a ballot?) Inserting images	30

1 Introduction

1.1 Purpose

GS1 is a multinational organisation with writers located all over the world. Without a unified GS1 documentation style, problems with inconsistency and poor readability can occur across documents and across departments.

A document with typos, ungrammatical constructs, or inconsistent structure and format can create questions about the accuracy of the content itself and ultimately reflects poorly on GS1 as a whole. Writers who dismiss the importance of presentation (consistent style, format, word use and so on) risk dissatisfied and unhappy readers.

To address these issues, GS1 has created an authoritative GS1 Style Guide that serves several purposes:

- To set rules and conventions for grammatical style, standardised spellings, proper word usage and correct punctuation
- To provide guidelines for writing procedures and scenarios, as well as using graphics
- To provide a standard, unifying document that all writers in GS1, regardless of their level, can use to easily and quickly improve the quality and consistency of their documentation

The information in this GS1 Style Guide is based on the previous GSMP Style Guide developed for technical publications and updates from the 2014 GS1 branding project.

1.2 Important changes that impact existing documentation

In December 2014, GS1 launched a new branding. This impacted logos, look and feel, iconography, colour schemes, fonts, websites, etc. For new material these style guide recommendations should be implemented at creation and for existing publications the goal is to implement fully within 2-years. Two important references for ensuring consistency to the new branding and this style guide are:

- GS1 standards Glossary of Terms: <http://www.gs1.org/glossary>
- Economist Style Guide: <http://www.economist.com/styleguide/>

The following new recommendations may impact existing documentation and are therefore highlighted here:

Use registered symbol only on first occurrence of registered trademarks in a document. If the first occurrence is a heading, use the symbol in the next occurrence.

- Example:
 - GS1 Source[®] is a framework for sharing product information (first occurrence)
- Exception:
 - Do not use [®] on GS1 since the [®] sign is included in the logo, but include “GS1 is registered trademark of GS1 AISBL” on all documents
- GS1 registered trademarks include:
 - DataBar[®]
 - EANCOM[®]
 - GDSN[®]
 - GEPIR[®]
 - Global Trade Item Number[®]
 - GS1 Global Registry[®]
 - GS1 Source[®]
 - GTIN[®]
 - ONS[®]

Do not capitalise “standards” even when using with GS1.

- Rationale: Minimal use of capitals makes texts easier to read; use of lowercase gives us a more relaxed and approachable tone of voice; GS1 is an adjective describing “standards” in this case
- Examples:
 - Correct: GS1 is a standards organisation
 - Correct: GS1 develops global standards
 - Correct: GS1 standards help companies improve supply chain efficiency
 - Incorrect: GS1 Standards help companies improve supply chain efficiency

Use “barcode” or “barcodes” as a single word, do not capitalise when using with GS1

- Rationale:
 - Google’s search index and GS1’s site search results show that “barcode” or “barcodes” are much more frequently used by our visitors that “bar code” or “bar codes”

- Examples:
 - Correct: GS1 provides barcode standards
 - Correct: Unilever has used GS1 barcodes on products for over 30 years
 - Incorrect: GS1 provides bar code standards
 - Incorrect: Unilever has used GS1 Barcodes on products for over 30 years

Spelling for terms that stay uppercase when GS1 is used as a prefix

- GS1 Application Identifiers
- GS1 Company Prefix
- GS1 Data Quality
- GS1 Data Quality Framework (DQF)
- GS1 DataBar
- GS1 EANCOM
- GS1 eCom
- GS1 EPCglobal
- GS1 General Specifications
- GS1 GLN Registry
- GS1 GLN Service
- GS1 Global Data Dictionary (GDD)
- GS1 Global Data Synchronisation Network (GDSN)
- GS1 Global Electronic Party Information Registry (GEPIR)
- GS1 Global Registry
- GS1 Global Standards Management Process (GSMP)
- GS1 Logistics Interoperability Model (LIM)
- GS1 Prefix
- GS1 Source
- GS1 XML

2 Applicable to all GS1 documentation

2.1 British English spelling rules

Use British English spelling for all documents.



Note: When using Microsoft Word, set the language to British English under the menu path: **Tools > Language > Set Language > English (U.K.)**

Table 2-1 Examples of spelling conversions

American English	British English
analyze	analyse
catalog	catalogue
center	centre
centered	centred
centralized	centralised
characterize	characterise
color	colour
dialog	dialogue
emphasize	emphasise
equalize	equalise
license	licence
initialize	initialise
liter	litre
meter	metre
memorize	memorise
minimize	minimise
modeling	modelling
optimize	optimise
organization	organisation
organize	organise
program	programme
recognizable	recognisable
recognize	recognise
specialize	specialise
standardize	standardise
synchronization	synchronisation
utilize	utilise

2.2 Terminology rules

Use the [GS1 standards Glossary of Terms](#) to define and research terminology. Follow these additional guidelines for terminology:

- business-to-business (B2B)
- business-to-business-to-consumer (B2B2C)
- business-to-consumer (B2C)
- data aggregator

- data pool *is two words*
- database *is one word*
- defence
- e-commerce (but E-commerce if starting a sentence)
- email *is one word and does not include a hyphen.*
- EU Food Information Regulation 1169/2011 (EU 1169)
- European Union (EU)
- Industry/industries – use when referring to all industry sectors
- internet
- omni-channel
- online *is one word and does not include a hyphen. Use this term when referring to the media type, rather than alternatives such as “web”*
- order-to-cash
- point-of-sale (POS)
- web
- website *is one word*

2.3 Capitalisation rules

Minimise capitalisation to drive readability in all texts including headings

- Rationale: overuse of capitals can make texts more difficult to read; use of lowercase gives us a more relaxed and approachable tone of voice, including headings
- Examples:
 - Correct: GS1 helps companies drive efficiency and safety
 - Incorrect: GS1 helps companies drive Efficiency and Safety
 - Correct: Our business benefits in retail
 - Incorrect: Our Business Benefits in Retail

2.3.1 Capitalisation of terms

For our industry's terms, follow the capitalisation style shown for terms defined in the [GS1 standards Glossary of Terms](#). For these terms and other words, capitalise nouns that constitute the unique identification of a specific person, place, or thing. This includes capitalising the proper name of an entity.

2.3.2 Capitalisation in acronyms

When an acronym is used for a noun, capitalise the letters of the abbreviated word(s) only.

- Exceptions:
 - The abbreviation “ID” is the conventional acronym for the word “identification.”
 - Never use an acronym for the term “Extension digit.”

2.3.3 Capitalisation of Section, Chapter, Appendix, Table and Figure

Capitalise the first letter of the word “section,” “chapter,” “appendix,” “table,” or “figure” only when it refers to a specific section, chapter, appendix, table, or figure.

- Examples:
 - The next section will discuss the GS1 Company Prefix.
 - See Figure 3–29 for an illustration of this symbol.
 - The figure below illustrates this process.

2.3.4 Capitalisation of GS1 keys

When referring to GS1 keys, the following list of terms shall be used if the intent is to be comprehensive:

- Global Trade Item Number (GTIN)
- Global Location Number (GLN)
- Serial Shipping Container Code (SSCC)
- Global Returnable Asset Identifier (GRAI)
- Global Individual Asset Identifier (GIAI)
- Global Service Relation Number (GSRN)
- Global Document Type Identifier (GDTI)
- Global Shipment Identification Number (GSIN)
- Global Identification Number for Consignment (GINC)
- Global Coupon Number (GCN)
- Component / Part Identifier (CPID)

2.4 Document title formatting in running text

Titles of documents should always be italicised in running text. However, do not italicise the words “section,” “chapter,” “appendix,” “table,” or “figure” and do not italicise the titles and numbers of a section, chapter, appendix, table or figure.



Note: When referring to specific document titles in references or hyperlinks, avoid including the date the document was published, released, or approved, or include its issue number unless it is critical to the context.

2.5 Abbreviation and symbol rules

This section describes the rules for using abbreviations and symbols.



Note: For currency abbreviation rules, see Section [2.10.9](#), [Numbers used in currency](#).

2.5.1 Acronyms

Always spell out acronyms the first time they are used

- Rationale: Acronyms are not readily understood by people who are new to GS1.
- Examples:
 - Correct: The Global Data Synchronisation Network (GDSN) allows companies to share data
 - Incorrect: GDSN allows companies to share data
- Exceptions: Terms where GS1 leads with acronyms
 - UHF (Ultra High Frequency)
 - HF (High Frequency)
 - RFID (Radio Frequency Identification)
 - EPC (Electronic Product Code)
 - EPC-enabled RFID (in general) or EPC/RFID (when shortened version needed)

2.5.2 Use of symbols

- Do not abbreviate the word “and” as “&” unless the word appears in a figure or table that has limited space.
- Do not abbreviate the word “plus” as “+” unless the word appears in a figure or table that has limited space.
- Never abbreviate the word “degrees” as “°.”
- Never abbreviate numbers, such as first, second, third, or fourteenth, using the conventions “st,” “nd,” “rd,” or “th.”

2.5.3 Dates

- If not spelled out in full use the format DD MOS CCYY for expressing dates. No punctuation is used between day, month or year.
- Examples (full format, month spelled out)
 - Correct: The new standard was released on 1 December 2014
 - Incorrect: The new standard was released on December 1, 2014
- Examples (abbreviated format)
 - Correct: 1 Dec 2014
 - Incorrect: 1-12-14, 12-1-14, Dec-1-14

2.6 Punctuation and grammar rules

- ✔ **Note:** See Section [2.10.9](#), [Numbers used in currency](#) for punctuation of currency.

2.6.1 Hyphens in compound words

- ✔ **Note:** See Section [2.2](#), [Terminology rules](#) for guidance on hyphen use in technical terminology.

In running text, always hyphenate compound words that are hyphenated in the [GS1 standards Glossary of Terms](#) or the dictionary. If a term is not hyphenated in the [GS1 standards Glossary of Terms](#), do not add a hyphen.

- Examples:
 - ITF-14 symbol
 - X-dimension
 - self-evident
 - wall-to-wall

In running text, hyphenate compound words when they are common English expressions that might be confusing or ambiguous without the hyphens.

- Examples:
 - ship-to address
 - end-user manuals
 - in-store sale
 - point-of-sale

Note that in most cases compound words that are **NOT** used directly before a noun are not hyphenated

- Examples:
 - Decision making is one of his responsibilities. (but) His decision-making skills were superb.
 - I'm good at problem solving. (but) Problem-solving activities are educational.

2.6.2 Prefixes and suffixes

A prefix or suffix usually combines with a word without a hyphen or space, as in *dehumidify* and *lifelike*, unless the meaning could be misconstrued.

- Examples:
 - Untie the knot.
 - He recovered in time to attend the meeting. (but) He re-covered the illegible label with a new one.

2.6.3 Spacing

After a period or a colon place a single space. Do not use double-space.

2.6.4 Use of "a" versus "an"

Use **"a"** before a word beginning with a consonant sound, such as a car, a hat, a history test, a union (u pronounced as if preceded by consonant y).

Use **"an"** before a word beginning with a vowel sound, such as an accident, an image, an honest person (h is silent), an uncle.

2.6.5 Use of "may" versus "can"

Can means **"to be able."**

May means **"to have permission."**

2.6.6 Use of "that" versus "which"

Use **"that"** to introduce a dependent clause (sometimes called a limiting or defining clause). These are clauses that cannot be removed from the sentence without greatly affecting the sentence's meaning.

Use **"which"** to introduce an independent clause (sometimes called a non-defining or parenthetical clause). Independent clauses can be removed from the sentence without harming the basic sense of the sentence.



Note: Note that a **"which"** is almost always preceded by a comma and introduces an independent clause.

- Examples:
 - The ID number, which is located on the label, should be clearly legible.
 - The digit that is in Position Thirteen is the Check Digit.


2.6.7 Using "e.g."

To give the reader examples of something in running text, use the initials "e.g." This stands for the Latin phrase meaning "for example" or "such as." Do not use "i.e.," which means "that is."



Note: A comma should always follow the second period in "e.g." in an example.

- Example:
 - Products modified for seasonal reasons (e.g., holiday packs) should carry a unique GTIN-12.

- 
Note: A comma should always follow the second period in “e.g.” in an example.

2.6.8 Using several examples in running text

When presenting several examples in running text following “e.g.,” it is not necessary to include the word “and” or “or” prior to the last example unless the word helps to clarify the sentence’s meaning.

- Examples:
 - Visually inspect the imaging tool for damage (e.g., nicks, plugs, tears).
 - GS1 barcodes require dark colours for bars (e.g., black, dark blue, dark brown or dark green).

2.6.9 Do not use comma before “and”

In line with the [Economist Style Guide](#) do not use comma before “and”

- Examples
 - Correct: The new standard enables efficiency, sustainability and safety
 - Incorrect: The new standard enables efficiency, sustainability, and safety

2.6.10 Parentheses with GS1 Application Identifiers

Include parentheses around a GS1 Application Identifier except when it is used in a table or figure.

- Example:
 - Use the GS1 Application Identifier (8100) with the GS1 Common Currency Coupon Code.

2.7 Bulleted lists


Bulleted lists are used for cases where the order of information is not important.

Follow these rules when writing bulleted lists:

- A bulleted list should contain at least two bullets. If it does not, rewrite it so the bullet is integrated into the lead-in sentence.
- Introduce the list with at least one lead-in sentence (or sentence fragment) ending with a colon, for example:
- The following example shows an order and delivery of an item traded in bulk:
- Embolden the introductory word or phrase in each high-level bullet, and follow it with a regular, nonbolded colon (not an en- or em-dash), for example:
- Schemas folder, with the following content:
 - **SBDH Folder:** Contains the Standard Business Document Header schemas
 - **Proxy Schema:** Used for a particular business message

- 
Note: Do not embolden the introductory word or phrase in second- or lower-level bullets.

- After the colon, capitalise the first word of each list item, even if it is a single word or sentence fragment

- 
Note: Do not capitalise programming code or case-sensitive words.

- Punctuation in bulleted lists:
 - Single words, phrases and sentence fragments do not get periods.

- Items consisting of one or more sentences or two or more sentence fragments do receive periods.
- If one item in a list receives a period, all other items in that list do as well, regardless of whether they are sentence fragments or full sentences.

2.8 Numbered lists

Numbered lists are used for cases where the order of information is important, such as multiple-step procedures.

2.8.1 Rules for writing multiple-step procedures

Follow these rules when writing multiple-step procedures:

- Use clear, present-tense, imperative verbs (for example, click, select, or modify) to tell readers what to do in a step.
- Write short and to-the-point sentences. If the text is too confusing or too long, readers will not be able to follow the instructions properly.
- Give readers only one instruction per step. However, you can combine up to three short instructions into one step if they occur in the same location.
- Have no more than 12 steps in a procedure. If there are more, you must review the procedure and determine if it can be split into smaller standalone procedures.

2.8.2 Using commands in multiple-step procedures

Follow these rules when presenting commands in procedures:

- Place commands on a separate line, no matter how short they are.
- Preface flags/switches in commands with a hyphen (-).
- Do not add a period after commands.
- Indicate user-defined parameters (variables) in commands with angle brackets.
- If there is one user-defined parameter, write the lowercase word where (without a colon) on a separate line, state the parameter and then provide a brief description (see the example below). If there is more than one, write the lowercase word where: (with a colon) on a separate line and then provide a bulleted list of the parameters and a brief description of each one.

Incorrect:

The NSS of all URNs assigned by GS1 have the following hierarchical structure, reflecting the basic context categories and major version number:

urn:gs1:[BP]:[IC]:[GP]:[Major Version]

Where BP is the Business Process, IC is the Industry Classification and GP is the Geopolitical Context

Correct:

The NSS of all URNs assigned by GS1 have the following hierarchical structure, reflecting the basic context categories and major version number:

urn:gs1:[BP]:[IC]:[GP]:[Major Version]

where:

- **[BP]** is the Business Process
- **[IC]** is the Industry Classification
- **[GP]** is the Geopolitical Context

2.9 Units of measure

Do not use an abbreviation or symbol for a unit of measure in running text unless it is part of a calculation or an expressed relation between two or more measurements. Abbreviations or symbols for units of measure may be used in figures and tables.

Measurements should always be in metric with an imperial equivalent in brackets if required.

- Examples:
 - Correct: The case is 50 mm x 60 mm in length.
 - Correct: X-dimensions below 0.635 millimetre (0.250 inch) should not be used.

Abbreviation/Symbol Measure	Abbreviation Measure
troy oz.	Troy ounce (apothecaries ounce)
in.	Inch
ft	Foot (12 inches)
gal	Gallon (US)
g	Gram
kg	Kilogram
lb	Pound
l	Litre
mg	Milligram
ml	Millilitre
mm	Millimetre
m	Metre
oz	Ounce
fl oz	Fluid ounce (US)
qt	Liquid quart (US)

Always include a single space between the number and the abbreviation or symbol for the measurement.

- Examples:
 - Correct: 6 g
 - Incorrect: 11Fluid Ounce

2.9.1 Country codes

For running text, use the three-letter ISO 3166-1 alpha country code. For storage of country codes within a barcode symbol, refer to the [GS1 General Specifications](#).

2.10 Number/digit rules

2.10.1 Number values

Always use numerals when describing specific numeric values.

- Example:
 - The digit 2 is placed in...

2.10.2 Data structure numbering

Always spell out numbers when describing positions inside a data structure.

- Example:
 - The digit 2 is placed in position one of the GTIN-13.

2.10.3 Numbers under and above 10

Except in events governed by Section [3.3, Issuing and dating technical documents](#), numbers under 10 should be spelled out; for numbers 10 and above, use numerals.

- Examples:
 - The three-digit number is used in positions two through five.
 - The 10-digit number 0123456789 should appear three times.

2.10.4 Group of related numbers

Except in events governed by Section [3.3, Issuing and dating technical documents](#), if any number in a group of related numbers is 10 or above, use numerals to express all the numbers.

- Example:
 - A 14-digit number and 5-digit number follow the first and second AIs in the data structure respectively.
- Example of Related GTINs:
 - GTIN-8, GTIN-12, GTIN-13 and GTIN-14
 - GTIN-12, GTIN-13 or GTIN-14
 - GTIN-12, GTIN-13 and GTIN-14

2.10.5 Numbers that begin a sentence

Spell out all numbers that begin a sentence and avoid writing sentences that begin with large numbers.

2.10.6 Specific number values

Use numerals for measurements, decimals, scores, votes, temperature and exact amounts of money, as well as for chapter, section and page references.

2.10.7 Unrelated numbers that appear side by side

Except in events governed by Section [3.3, Issuing and dating technical documents](#), if two unrelated numbers appear side by side in a sentence, spell out the first number and use a numeral to represent the second number.

- Example:
 - The reference number includes two 3-digit numbers (however, use a numeral for the first number if it is long when spelled out and spell out the second number.)

2.10.8 Rounding numbers

Editors and technical writers should never round numbers provided by technical staff. See Section [3.15, Use of the term U.P.C.](#)

When the term "U.P.C." is used alone, it must be stated with the periods in any written form, whether it is a presentation, a letter or a publication.

If the term "UPC" is used, we are infringing upon the certification mark of the International Association of Plumbing and Mechanical Officials (IAPMO). IAPMO allows the use of the term "U.P.C." and requires in publications a footnote to define the difference.

When the letters "UPC" are used in conjunction with other characters, then the periods are not required

- Examples:
 - EAN/UPC symbology
 - UPC-A barcode

Rounding rules for barcode symbols for a detailed explanation of rounding rules for technical staff.

2.10.9 Numbers used in currency

When a number that represents money is spelled out, use the word for the type of currency along with the number. For example, use the word "euro", "dollars," "yen," or "pounds" with the number. When numerals are used for the amount, include the symbol for the currency type (such as "€" or "\$"). If no cents are included in the numeral, omit the ".00".

Use euro as standard currency to compare amounts as it makes figures in documents comparable.

Guidelines:

- If quoting other currencies, always put euro first and other currency in brackets
- If using full word keep lowercase (euro not Euro) and remember plural is euro (not euros)
- If using "€" put before figures (not after)

Examples:

- Correct: Data synchronisation saves the industry 15 million euro per year
- Correct: Data synchronisation saves the industry €15 million (\$18,75 million)
- Correct: The catalogue is GBR £9.95
- Incorrect: Data synchronisation saves the industry 15 million euros per year
- Incorrect: Data synchronisation saves the industry 15 million € per year
- Incorrect: Data synchronisation saves the industry 15 million EUR per year

2.10.10 Numbers used to represent time

When using a 12-hour clock, use numerals for the time if including a.m. and p.m.; spell out numbers if using "o'clock."

- Examples:
 - 1 p.m.
 - one o'clock

When using a 24-hour clock, include the colon between hours and minutes.

- Example:
 - 07:00

2.11 Terms to reference parenthetically

To help readers understand new terminology during a migration period, it is permissible to include the prior term in parentheses following the new term.

- Examples:
 - GS1 Source (Trusted Source of Data)
 - Quiet Zone (Light Margin)

3 Specifics for GS1 technical documentation

3.1 Fonts and styles defined by the templates

The fonts and styles of all GS1 technical documentation are governed by the style template. For a complete description of documentation styles and templates, see the [GS1 Documentation Templates User Guide for Microsoft Word](#).

3.2 Document and trademark disclaimer

Include the following disclaimer statement at the beginning of a GS1 document, prior to the Table of Contents of all GS1 standards and guidelines. This disclaimer eliminates the need to include and update registered trademarks in the document:

GS1, under its IP Policy, seeks to avoid uncertainty regarding intellectual property claims by requiring the participants in the Work Group that developed this **GS1 Product Type, GS1 Document Type** to agree to grant to GS1 members a royalty-free license or a RAND license to Necessary Claims, as that term is defined in the GS1 IP Policy. Furthermore, attention is drawn to the possibility that an implementation of one or more features of this Specification may be the subject of a patent or other intellectual property right that does not involve a Necessary Claim. Any such patent or other intellectual property right is not subject to the licensing obligations of GS1. Moreover, the agreement to grant licenses provided under the GS1 IP Policy does not include IP rights and any claims of third parties who were not participants in the Work Group.

Accordingly, GS1 recommends that any organization developing an implementation designed to be in conformance with this Specification should determine whether there are any patents that may encompass a specific implementation that the organization is developing in compliance with the Specification and whether a license under a patent or other intellectual property right is needed. Such a determination of a need for licensing should be made in view of the details of the specific system designed by the organization in consultation with their own patent counsel.

THIS DOCUMENT IS PROVIDED "AS IS" WITH NO WARRANTIES WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT, FITNESS FOR PARTICULAR PURPOSE, OR ANY WARRANTY OTHERWISE ARISING OUT OF THIS SPECIFICATION. GS1 disclaims all liability for any damages arising from use or misuse of this Standard, whether special, indirect, consequential, or compensatory damages and including liability for infringement of any intellectual property rights, relating to use of information in or reliance upon this document.

GS1 retains the right to make changes to this document at any time, without notice. GS1 makes no warranty for the use of this document and assumes no responsibility for any errors which may appear in the document, nor does it make a commitment to update the information contained herein.

3.3 Issuing and dating technical documents

All published documents are versioned with a release number, which appears on the title page. The first two digits of the release number are mandatory and shall be structured as: MAJOR.MINOR.ERRATA (e.g., 3.1.2). The guidance for updated is:

- **MAJOR** release indicates a functional change to a standard **X.x**
- **MINOR** release indicates backward-compatible additions or small changes to the wording or structure of a standard **x.X**
- **ERRATA** release and bug fixes (optional for guidelines but mandatory for any change to any standard) **x.x.X**

Only major and minor releases are usually significant to the users with errata release being used for changes that do not materially affect the standard or those who have implemented the standard.

The first release of a document will typically be release 1.0 and the digits for Major and Minor changes shall increase incrementally as required. The Errata field is left blank for the first Major or Minor release but is mandatory for any subsequent updates of standards that do not necessitate a more significant release number change. The *Microsoft Manual of Style* can be referenced for further guidance for changing release numbers.

For a draft document, the filename includes the "to be" release number, plus a draft number in the Errata field and a date. It is essential that all draft documents are clearly marked Draft, and ratified standard and guidelines are clearly marked Ratified, on the cover page and in the document footers a on the cover page. Other document statuses, for example 'Community Review Draft', should appear.

Examples:

- EPC Tag Data Standard_v1.9_r_2014-11-01
- Leveraging GDSN for the FDA Global Unique Device Identifier Database_Release1.3.1_d2_2015-02-27

Technical documents titles should be dated with the **month** and the **year**. Do not add the **day** unless absolutely necessary. The month name should always be abbreviated.

In a document's title, always use the following date format when including the month and year: **Aug 2016**

Use the following date format when including the day, month and year: **4 Aug 2016**.



Note: using the GS1_Advanced Word Template (see [3.1 Fonts and styles defined by the templates](#)) and the GS1 Document Properties will help ensure compliance.

3.4 Conformance language in GS1 standards

The concept of "conformance" is central to GS1 standards. A GS1 standard exists to define certain characteristics of an implementation created by an end user or solution provider. An implementation is said to conform to a GS1 standard if it satisfies the conformance conditions laid out in the text of the standard. The standard is written such that when multiple implementations are in conformance to the standard, those implementations are capable of interoperating in the way envisioned by the authors of the standard. Conformance is the soul of what a GS1 standard is intended to convey. It is therefore essential that a GS1 standard be clear and unambiguous in what it says about conformance.

The text of GS1 standards should be drafted to address the following aspect of conformance:

- The standard should clearly identify what types of implementation artefacts are subject to conformance to the standard. In other words, what are the things that can be judged as in conformance or not in conformance to the standard?
- If there are different ways to comply with the standard, the standard should clearly identify each conformance level or conformance option, ideally giving each a name that can be used in conformance testing reports to precisely indicate to what levels or options a given implementation conforms.
- Normative statements in the body of the standard should use the "conformance verbs" SHALL, SHOULD and MAY as defined in the ISO Directives. Moreover, such statements should be worded so that it is clear how it applies to an implementation. Generally, this means the subject of these verbs should be "a conforming implementation" or a similar phrase.

Each of these points is explained and illustrated in detail in the sections that follow.

3.4.1 Identifying what may conform

A GS1 standard should identify what types of things are subject to conformance to the standard. For a data standard, a conforming implementation might be a specific piece of data or an electronic document. For a barcode print quality standard, a conforming implementation might be a specific printed barcode. For a messaging standard, a conforming implementation might be the sender or receiver of a message, or the message content itself. For a software interface standard, a

conforming implementation might be a software implementation on one side of the interface or the other.

Many standards define conformance requirements for different implementation artefacts which interact according to the standard. In such cases, there are several types of implementations that conform to the standard, each conforming to different statements within the standard. For example, the *Gen2 Air Interface Standard* defines interactions between an RFID reader and an RFID tag. So there are two types of conforming artefacts, readers and tags and the standard includes some statements that define what it means for a reader to conform and other statements that define what it means for a tag to conform. Each normative statement in the standard should clearly indicate to which type of conforming artefact the statement applies (see Section 3.4.3).

The text of the standard that defines the conforming artefacts should be clearly identified and easily found in the standard document. A good way to do this is to have a section titled "Conformance."

Here are some examples of well-written statements of what artefacts conform to a standard.

From the *GS1 Core Business Vocabulary (CBV) 1.0* standard:

A "CBV-Compliant Document" is a document that conforms to the schema and other constraints specified in [EPCIS1.0.1], and which furthermore conforms to all the normative language in this standard that pertains to a "CBV-Compliant Document."

The CBV standard is a data standard, so it defines a document as an artefact that may be in conformance to the standard. Note that it also identifies conformance to another standard (EPCIS) as a condition for conformance to CBV, in addition to the statements contained in CBV itself.

The CBV standard also defines applications as another type of artefact that may conform:

A "CBV-Compliant Application" is any application for which both of the following are true:

- If it operates in a mode where it claims to accept a CBV-Compliant Document as an input, the application SHALL accept any document that is a CBV-Compliant Document according to this standard and furthermore in processing that input SHALL interpret each CBV identifier according to the meaning specified herein.
- If it operates in a mode where it claims to produce a CBV-Compliant Document as an output, the application SHALL only produce a document that is a CBV-Compliant Document according to this standard and furthermore in generating that output SHALL only use CBV identifiers to denote their meaning as specified herein.

The Gen2 Air Interface Standard defines RFID Readers (called "Interrogators") and RFID Tags as two types of artefacts that may conform. (In the example below, the word "protocol" refers to the Gen2 Air Interface Standard itself.)

2.2.1 Interrogators

To conform to this protocol, an Interrogator shall:

- Meet the requirements of this protocol,
- Implement the mandatory commands defined in this protocol,
- Modulate/transmit and receive/demodulate a sufficient set of the electrical signals defined in the signalling layer of this protocol to communicate with conformant Tags, and
- Conform to all local radio regulations.

To conform to this protocol, an Interrogator may:

- Implement any subset of the optional commands defined in this protocol, and
- Implement any proprietary and/or custom commands in conformance with this protocol.

To conform to this protocol, an Interrogator shall not:

- Implement any command that conflicts with this protocol, or

- Require using an optional, proprietary, or custom command to meet the requirements of this protocol.

2.2.2 Tags

To conform to this protocol, a Tag shall:

- Meet the requirements of this protocol,
- Implement the mandatory commands defined in this protocol,
- Modulate a backscatter signal only after receiving the requisite command from an Interrogator, and
- Conform to all local radio regulations.

To conform to this protocol, a Tag may:

- Implement any subset of the optional commands defined in this protocol, and
- Implement any proprietary and/or custom commands as defined in 2.3.3 and 2.3.4, respectively.

To conform to this protocol, a Tag shall not:

- Implement any command that conflicts with this protocol,
- Require using an optional, proprietary, or custom command to meet the requirements of this protocol, or
- Modulate a backscatter signal unless commanded to do so by an Interrogator using the signalling layer defined in this protocol.

3.4.2 Conformance levels and options

Many standards, especially technical standards, are not monolithic, but instead define different modules of features that can be used for different applications. In this case, there may be implementation artefacts that do not conform to the entire standard, but which conform to selected parts of the standard. Of course, an implementation cannot pick and choose which parts it conforms to: the standard itself must define specific groups of features or options which must each be implemented in their entirety to claim conformance. When this is the case, a standard must clearly specify what are the available conformance levels and options, and what are the conformance requirements for each.

For example, the *GS1 Application Level Events (ALE) 1.1* standard defines five different Application Programming Interfaces (APIs). A given implementation of ALE may implement a subset of these APIs, but each API it implements must be implemented in its entirety to claim conformance.

Another example, the *GS1 EPC Information Services (EPCIS) 1.0.1* standard defines a software messaging interface to which an implementation may conform. A large number of normative statements pertain to all implementations that conform to this interface. But the EPCIS standard offers a choice of message transport, based on HTTP or AS2. A conforming implementation may implement one or both of these message transports. These constitute conformance options.

Another example, the Gen2 Air Interface Standard defines a base level of functionality that all tags and readers must implement. Many features are optional in this base level of conformance. Annex N defines additional conformance levels; to qualify for any of these conformance levels a tag or reader must conform to specified normative statements that are otherwise optional in the base conformance level. A tag or reader may be tested to be in conformance to the base level, or may additionally be tested to be in conformance to one of the higher levels.

All conformance levels should be identified clearly, and it should be absolutely apparent which normative statements apply to which level. Ideally, each level should be given a name, so that it is easy to refer to it in a conformance testing report for any particular implementation.

3.4.3 Wording of normative statements

The heart of a GS1 standard are normative statements. A normative statement is a statement that defines the behaviour or otherwise places a constraint upon a conforming implementation. Collectively, the normative statements are what gives a standard force.

In GS1 standards, normative statements are written using the verbs defined in Annex G of the ISO/IEC Directives, Part 2, 2001, 4th edition [ISODir2]. These include the verbs SHALL, SHALL NOT, SHOULD, SHOULD NOT, MAY, NEED NOT, CAN and CANNOT. When these words are written in a normative statement, using the special meanings defined in [ISODir2], 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 [ISODir2]. Briefly, their meanings are summarized 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.
- MAY (or CAN) means that a conformation implementation is allowed to do what the statement says, but it is not required to for conformance.

The most precise way to write a normative statement is to name a type of conforming artefact as the subject and one of the special words above as the verb; e.g., “A conforming implementation of this standard SHALL do ...” This makes it very clear to what artefact a given normative statement applies, and offers a precise way to assess whether the artefact is in conformance or not.

It is less effective to make some concept internal to the standard be the subject of the verb. For example, imagine a hypothetical standard that defines an interface between an RFID Reader and an RFID Tag, in which there is a Read command defined. The following sentence does not follow the above guideline:

The address field of a Read command SHALL be less than 400.

Here, the subject of the verb is “a Read command”. It is not clear whether this conformance statement applies to a conforming RFID Reader, a conforming RFID Tag, or both. It is also not clear what happens if this statement is violated. The following wording is much clearer because it makes the conforming implementation the subject of the verb:

A conforming RFID Reader SHALL NOT issue a Read command whose address field is greater than or equal to 400. A conforming RFID Tag SHALL process a Read command whose address field is less than 400, and SHALL reject with error code 62 a Read command whose address field is greater than or equal to 400.

Repetition of this style of sentence can become very tedious. Tables are a good way to avoid repetition, and with the appropriate introductory sentence can be just as precise:

All commands issued by a conforming RFID reader SHALL be as specified in the following table:

[table goes here]

A SHOULD or MAY statement indicates something that is optional; an implementation does not have to do what the sentence says in order to be in conformance. Quite often, there are optional features of a standard such that an implementation does not have to implement the feature, but if it does it has to do it a certain way to achieve interoperability. The correct way to write this in normative language is in a style similar to the following:

A conforming implementation MAY implement the XXXX feature. If a conforming implementation implements the XXXX feature, it SHALL do YYYY.

This makes it very clear what is expected of an implementation if it implements the optional feature.

3.5 Section title numbering rules

Follow this numbering convention when labelling document sections:

- 2 Highest level – use for major section headers
 - 2.1 Subsection (subhead) of the preceding section (2)
 - 2.1.1 Subsection (subhead) of the preceding section (2.1)
 - 2.1.1.1 Subsection (subhead) of the preceding section (2.1.1)
- and so on.

3.6 File naming conventions

This section describes the naming conventions for files. Files types can include:

- DOC – Microsoft Word
- PDF – Adobe Portable Document Format
- ZIP – Series of compressed files

File names should not contain white spaces.

During development the following naming convention should be used for all GS1 standards & guideline documents:

<<Document_Name>-<Type>-<Issue>-<Status>-<yyyy>-<mm>-<dd>

Where:

<Type>	Standard – Standards Document Guideline –Guideline ConfReq – Conformance Requirements BMS – Business Message Standard BRAD – Business Requirement Analysis Document	TestMethod – Test Methods Schema - Schemas WhitePaper – White Paper Manual –Manual
<Status>	r – Ratified d – Draft crd – Community Review Draft cs – Candidate standard	
<To Be Release>	Published documents receive an release number (i.e., 1.0. 2.2.1., 4.0, etc) and the 'To Be' release number should be used	
<yyyy>-<mm>-<dd>	Year-Month-Day	

Once ratified, most GS1 standards and guidelines are published as pdf files. The date appearing on the cover is the date of ratification (month and year).

3.7 Using notes

Notes draw the readers' attention to information of special importance or information that does not belong in the body text. There are two types of note icons available:



Note



Important

3.7.1 Using regular notes

Notes add supplemental but tangential information or emphasize a point within the text. They are not essential to the basic understanding of text. A note can also be used to provide information that applies only in certain cases.

3.7.2 Using “Important” notes

Important notes draw readers’ attention to information that is crucial to the current topic. The major difference between a regular note and an important note is that, while a note provides ancillary information, an important note provides readers with significant content to which they must pay attention. In other words, if readers cannot carry out a procedure or understand a concept without it, it must be presented as an important note; if they can, it is a regular note.

To draw the reader’s attention to **Non-Normative** text, use the following “Important” note format:

 **Non-Normative:** Draws the readers’ attention to Non-Normative text

3.8 Footnotes

Do **not** include footnotes or endnotes in documents. If supplemental information for the reader is necessary, include the information as a NOTE (See Section [3.7](#), [Using notes](#)) following the applicable text. If several notes apply to a specific section, they may be numbered (e.g., Note 1, Note 2) or carry asterisks.

3.9 Hyperlink and cross-reference rules

Hyperlinks and cross-references are references to items that appear in another location within a document. They can also be references to external documents or websites.

When adding cross-references to a manual you could, of course, type them manually. As you revise your document, however, there is a good chance that the pagination, section headings, figure numbers and so on will change, requiring you to update all of your cross-references. To avoid this, all cross-references should be inserted as fields. This way, Word can update them automatically as needed.

The information in this section describes the wording and formation to use when inserting hyperlinks and cross-references. For detailed information on how to insert cross-references as fields using the GS1 Style Templates, see the *GS1 Documentation Templates User Guide for Microsoft Word*.

3.9.1 Cross-references to a section within document

When linking to a single location within a document, references to the location should contain both the section’s name and number. Avoid using the unnecessary phrase “in this guideline” or “in this document.” The text should be formatted as underlined with a blue font.

■ Example:

- See Section 2.2 , Terminology rules, for an explanation of this process.



Important Information about the GS1 General Specifications:

When developing the [GS1 General Specifications](#), indicate the section number only. Do not include the section title.

3.9.2 Cross-references to an external document

When referencing an external document, the complete document title must be included in the text. If you know the documents location on Community Room or the GS1 website it should be hyperlinked to its location.

When referencing a single location of an external document, the document title must precede the location. The document’s title should always be formatted in italics.

Format the title and/or section as underlined with a blue font only if an actual hyperlink exists. If there is no hyperlink, then do not format with underline and blue font. When referencing external sections and hyperlinks are not necessary, do not use underlines or blue fonts.

■ Examples:

- See the [GPC Basics and Access Guide, Section 5](#), for an explanation of this process.
- See the *GS1 XML Technical User Guide to Release 2* for further information.



Important Information about the GS1 General Specifications:

Never hyperlink to an external document from the [GS1 General Specifications](#).

3.9.3 Cross-references to multiple locations

When linking to multiple locations (internally or externally), reference all of the locations individually so they can be individually linked.

■ Examples:

- See [Figure 3-1](#), [Figure 3-2](#) and [Figure 3-3](#), for more details.
- An illustration of this technique can be found in Sections [2-3](#), [2-5](#) and [2-5](#).
- See the GS1 GDSN Operations manual and the Report on Internal Data Alignment for more information.



Note: When referring or linking to a table or figure, do not include the table's or figure's section number, as this information should be obvious from the table or figure number

3.9.4 Wording of hyperlinks and references

When referring the reader to a reference or a hyperlink, introduce the reference or hyperlink number with **see**, not **refer to**.

■ Example:

- For an explanation, see Section [6.4.11, Message Layer](#).
- Use the word **see** when introducing a cross-reference or hyperlink within parentheses.

■ Example:

- The Technical Terminology section includes a list of terms and how they should be punctuated (see Section [2.2, Terminology rules](#)).

3.10 Figures and tables

Figures enhance a document's readability by illustrating key points, better communicating ideas and helping readers navigate through sometimes confusing interfaces. Tables display lengthy and complex information in a simple format and enable readers to quickly compare different ideas and topics. For example, tables can be used to display several levels of detail about alarms, to describe parts of a dialog box, or to list specifications of a particular piece of hardware.

This section describes the proper procedures for numbering figures and tables.



Important Information about the GS1 General Specifications:

There are different numbering procedures for the [GS1 General Specifications](#). See Section [3.10.3, Figure and table numbering in the GS1 General Specifications](#) for more information.

3.10.1 Figure and table caption formatting

Figure and Table captions should always appear above the figures or tables to which they refer. Table captions are justified left and Figure captions are centred.

If a figure or table has a title, add a single space and the full title name after the complete figure number. The word “Figure” or “Table” and its corresponding sequential number should be in boldface type. The title of the figure or table should not be in boldface.

- Table Example:

Table 6-1 Item specifications

- Figure Example:

Figure 12-3 GDSN Process

3.10.2 Figure and table numbering

A figure or table’s sequential number should be counted in the order that the figure or table appears in its highest section, from left to right, top to bottom, in relation to other like entities. In other words, Figure 3-2 could appear after Table 3-3 but would always appear before Figure 3-3.

- Example:

Figure 3-2 Orientation

[Highest level section number] - [the sequential figure number within the highest level section number]

Table 3-1 Colour scheme

[Highest level section number] - [the sequential table number within the highest level section number]

Table A2-10 Section reference

[Highest level appendix letter and section number] - [the sequential table number within the highest level section number]

- Examples: Three figures and three tables that appear alternately in Section 4.21 would be titled as follows:
 - Figure 4-1
 - Table 4-1
 - Table 4-2
 - Table 4-3
 - Figure 4-2



Note: The templates will automatically create the correct figure and table caption numbering in your documents. For more detailed information see the [GS1 Documentation Templates User Guide for Microsoft Word](#).

3.10.3 Figure and table numbering in the GS1 General Specifications

Figure numbering the [GS1 General Specifications](#) follows a different system. Figures are numbered sequentially based on the sequential number of the figure within its subsection (not the highest section number).

- Examples:

Figure 16.1 – 1. Barcodes in Ladder Orientation

[Subsection number] – [the sequential figure number within the subsection]: [title]

Figure 16.3 – 3. GS1 Data Structures

[Subsection number] – [the sequential table number within the subsection]: [title]

Figure A.5 – 1. GS1 Identification Keys

[Subsection appendix letter and number] – [the sequential figure number within the appendix subsection]. [title]

3.11 Migration rules for ancillary document names

When a “dead” term (a term that has been retired and replaced) is used in the proper title of an existing document or web page, the term in the title should not be revised until the new term is officially recognised by GS1 and the document or website is revised and/or reprinted in a subsequent edition.

3.12 Open issue text

“Open Issues” indicate blocks of text that are placeholders for work in progress. This style is only to be used on “work-in-progress” documents and is not permitted in published ratified documents.

➤ This is an example of an open issue. Basically like Bullet List, but using a different bullet symbol.

3.13 Data structure positioning rules

3.13.1 Data structure labelling

When labelling a data structure, the numbered positions in the structure should be labelled incrementally from left to right. The leftmost position should be “Position One” and positions to its right should increase by increments of one.

3.14 Appendix rules

3.14.1 Placement

Because readers expect appendices to be part of the back matter of a document, appendices should appear following the last section of a document. However, in unusual circumstances, an appendix may directly follow a section or subsection if what the appendix includes is essential to the understanding of the material contained in the section or subsection.

3.14.2 Appendix numbering

Appendices should be sequentially numbered, using the convention A, B, C, Follow the numbering rules in Section [3.5](#), [Section title numbering rules](#); however, preface the section number with the letter of the appendix and a period.

■ Examples:

- Appendix A 1.2 = A.1.2
- Appendix C 62.1.1 = C.62.1.1

3.15 Use of the term U.P.C.

When the term “U.P.C.” is used alone, it must be stated with the periods in any written form, whether it is a presentation, a letter or a publication.

If the term “UPC” is used, we are infringing upon the certification mark of the International Association of Plumbing and Mechanical Officials (IAPMO). IAPMO allows the use of the term “U.P.C.” and requires in publications a footnote to define the difference.

When the letters “UPC” are used in conjunction with other characters, then the periods are not required

- Examples:
 - EAN/UPC symbology
 - UPC-A barcode

3.16 Rounding rules for barcode symbols

To ensure a consistent set of metric and inch-based dimension equivalents, a consistent precision (significant digits), method of conversion (inches to millimetres and millimetres to inches), and method of rounding has been established.



Note: The following rules are for use by GS1 technical staff only. Writers and editors should never round numbers provided by technical staff.

3.16.1 Precision rule for X-dimensions (modules)

Because many barcode symbol widths are defined by a multiple of X-dimensions (modules), the X-dimension is to be rounded to the third decimal place (N.NNN) for X-dimensions stated in millimetres and to the fourth decimal place (N.NNNN) for X-dimension equivalents in inches.

3.16.2 Precision rule for symbol widths and heights

The overall widths (horizontal), heights (vertical) and other dimensions for barcode symbols are to be rounded to the second decimal place (N.NN) for dimensions stated in millimetres and to the third decimal place (N.NNN) for the dimension equivalents in inches.

3.16.3 Rounding rule

If the calculation of an equivalent dimension results in a value that is more digits than the precision required, and the digit following the digit to be rounded is a 5 or greater, the value is to be rounded up to the next higher value. If the digit following the digit to be rounded is less than 5, the digit to be rounded remains the same.

3.16.4 Conversion rule for inches to millimetres

The metric equivalent of the GS1 barcode inch dimensions are to be calculated using the dimensions multiplied by 25.4 and rounded as stated in Section A.2.3.

- Example:
 - The nominal X-dimension is 0.0130 in. $\times 25.4 = 0.330$ mm and the total width of the barcode, including Quiet Zones, is 0.330 mm $\times 113 = 37.29$ mm.

3.16.5 Conversion rule for millimetre to inches

The inch equivalent of the GS1 barcode metric dimensions are to be calculated using the dimensions divided by 25.4 mm and rounded as stated in Section A.2.3.

- Example:
 - The overall width would be 26.73 mm $/ 25.4 = 1.052$ inch. The overall height would be $21.31/25.4 = .839$ inch.
 - A.2.6 Decimal Place Indicator



Note: Within GS1 standards and guidelines, decimal placement will be indicated with a period.

3.17 Business process modelling methodology

There are additional rules specific to developing Business Process Modelling documents such as the Business Message Standard (BMS). For a complete guide to these rules, see the *GS1 Modelling Methodology* manual.

3.18 Listing contributors

The [GSMP manual](#) includes the requirement that each standard or guideline include a list of the individuals who contributed to the creation of the document. This list should appear after the title page and the full criteria for including contributors can be found in the [GSMP manual](#).

3.19 Change log

Each standard and guideline should include a 'Log of changes' after the title page. This should contain a very concise summary made since the previous release. It is important to distinguish:

Log of changes during drafting:

- This can include detailed editing notes

Log of changes between published versions:

3.20 Detailed editing notes should be deleted and replaced with a concise summary of approved changes since the last release (to discuss, can log of changes be changed after a ballot?) Inserting images

Word enables different ways for images appear in documents. While any method is acceptable the following guidance should be followed where possible:

- Recommend format .png (aligned with all images available from GS1 marketing)
- Insert images using the Word Command *Insert > Picture* then browse to the image file and ensure that the text wrapping option for the image is *In Line with Text*
 - Do **not** use the option "link to file" when you insert or embed an image. This links the Word document to the image file stored on your computer. When the file is exchanged with others, this link may cause problems. Also avoid using copy-paste of images.
- Maintain all original artwork with Word (editable) version of documents. If you create your own, these should be part of the final files sent for posting to the website. Any graphic tool can be used to create *.png format images. PowerPoint is a simple and easy to use graphic editing tool and files can be saved using the *same_file_name.pptx* as the file to be posted.
- Avoid any text in images (not translatable)
- Avoid creating images in Word due to formatting (anchoring) issues and compatibility between the various versions of Word

Figure 3-1 Example of a *.png image inserted in line with text

