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Tracking

Supply Chain Efficiency & Integrity

Dentsu Aegis Network

CLARIFICATIONS ON THE REPORTING OF UNIQUE IDENTIFIERS

This document details the clarifications on the reporting of unique identifiers.

Confidentiality Statement

1 Clarification on Structure of unit-level unique identifiers

1.1 Clarification on Structure of unit-level unique identifiers (after encoding into a data carrier)

Clarification on the use of data qualifiers as part of the UI, taking into account Implementing Regulation 2018/574 and the applicable international ISO norms.
To facilitate this explanation, please see attached a table illustrating the structure of the UI (after encoding it into a data carrier), and the roles of ID issuers and economic operators in generating / applying the different data elements and, where applicable, data qualifiers.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Unique Identifier	Symbology Identifier	Mandatory Data Qualifier	ID Issuer Identification Code	Optional Data Qualifier	Serial Number	Optional Data Qualifier	Product Code	Optional Data Qualifier	Timestamp
Type	Qualifier	Qualifier	String (data Element)		String (data Element)		String (data Element)		String (data Element)
Position within the unique identifier	Fixed	Fixed	Fixed	Free	Free	Free	Free	Fixed	Fixed
Regulated by	Art. 21(1) and ID issuer's coding structure	Art.3(4), Art.8(1)(a), Art. 21(1) and ID issuer's coding structure	Art.3(4) and Art.8(1)(a)	Art. 21(1) and ID issuer's coding structure	Art.8(1)(b)	Art. 21(1) and ID issuer's coding structure	Art.8(1)(c)	Art. 21(1), Art. 21(4) and ID issuer's coding structure	Art.8(1)(d) and Art.21(4)
Applicable international standards	ISO/IEC 16022:2006, or ISO/IEC 18004:2015, or ISS DotCode Symbology Spec.	ISO 15459-2:2015 and ISO 15459-3:2014	ISO 15459-2:2015 and ISO 15459-3:2014						
Process	Applied bv EO	Applied bv EO	Generated by ID issuer	Applied bv EO	Generated by ID issuer	Applied bv EO	Generated by ID issuer	Applied bv EO	Applied bv EO
Transmission to repositories systems	No	No	Yes	No	Yes	No	Yes	No	Yes

1) Pursuant to Article 8(1)(a)-(c) of Implementing Regulation 2018/574, the following data elements (strings) should form part of the UI, as generated by the competent ID issuer:

- ID issuer identification code (subject to ISO 15459-2 and 3);

- Serial number;
- Product code.

2) Pursuant to Articles 8(1)(d) and 21(4) of Implementing Regulation 2018/574, manufacturers and importers shall add the time stamp in the last position to the code generated by the ID issuer. The time stamp can be either encoded into the data carrier or be added separately from the data carrier as a human readable format. The time stamp format must correspond to YYMMDDhh. Regardless of its format, the time stamp remains a part of the UI in the sense of Article 8 of Implementing Regulation.

3) Article 3(4) of Implementing Regulation 2018/574 requires that the ID issuer identification code should be assigned in line with ISO/IEC 15459-2 and the latter should be read in conjunction with ISO/IEC 15459-3 laying down common rules on unique identification and data capture techniques. Accordingly, the ID issuer identification code always must be preceded by a data qualifier, which shall consist of digits and upper cases only. That data qualifier shall be applied, as part of the encoding process, by the economic operator in accordance with the applicable coding structure published by the ID issuer in cooperation with its Issuing Agency.

4) Economic operators may be asked to apply additional ISO/IEC 15459-3 data qualifiers to the code generated by the ID issuer as part of the encoding process into the permitted types of data carriers. The use of these optional data qualifiers should be in line with the applicable coding structure published by the ID issuer in cooperation with its Issuing Agency. To that end, it is important to take into account that the use of data qualifiers may depend on the symbology identifier that is applied in accordance with Article 21(1) of Implementing Regulation 2018/574 (and the ISO norms referred therein). The coding structure of the ID issuer should address this possible interdependency and provide for adequate guidance to economic operators.

5) The potential use of a data qualifier preceding the time stamp will also depend on whether an economic operator decides to rely on Article 21(4) of Implementing Regulation 2018/574. The application of such data qualifier should take place in accordance with the applicable coding structure published by the ID issuer in cooperation with its Issuing Agency.

6) To ensure positive validation by the repositories system, only the following data elements (strings), excluding the symbology identifier and any data qualifiers, should be transmitted by economic operators as part of their recording activity to the repositories system:

- ID issuer identification code (without mandatory data qualifier);
- Serial number;
- Product code;
- Time stamp.

7) For the purpose of the explanation above, group separators (/FNC1) are considered in the same manner as optional data qualifiers. Their use depends on the coding structure published by the ID issuer.

1.2 Clarification on Structure of aggregated-level unique identifiers (after encoding into a data carrier)

1.2.1 Aggregated UIs generated and issued by competent ID issuers

For aggregated UIs generated and issued by competent ID issuers, the rules on the use of data qualifiers explained in point 1.1 above apply by analogy.

1.2.2 Self-generated aggregated UIs

Self-generated UIs must only provide for unique identification of the traceable item and as such, any additional information added to the aggregated level UI, as provided for in Article 11(4) of Implementing Regulation 2018/574, must not be transmitted by economic operators as part of their recording activity to the repositories system.

Example 1: GS1 DataMatrix encoding Global Trade Item Number with Serial Number (SGTIN)
Aggregate Unique Identifier for standard trade item grouping using GS1 Application Identifiers (01) for GTIN and (21) for Serial Number

	(1)	(2)	(3)	(4)	(5)
Unique Identifier	Symbology Identifier	Data Qualifier	GTIN	Data Qualifier	Serial Number
Position within the unique identifier	**Fixed**	**Fixed**	**Fixed**	**Fixed**	**Fixed**
Applicable international standards:	ISO/IEC 16022:2006, ISO/IEC 18004:2015, or ISO/IEC 15417:2007	ISO 15459-2:2015, ISO 15459-3:2014, ISO/IEC 15459-4: 2014 Section 4.1.2 (normative), ISO/IEC 15459-6:2014 Section 5 (normative) and Annex B (informative), and the GS1 General Specifications V.19 (or latest equivalents)			
Values	]d2	01	01234567891231	21	456FGRD66
Process	← Applied by EO → Symbology Identifiers are transmitted by scanners based on 'start character patterns' that must be followed when printing the barcode. See barcode specifications for specific patterns required to signal GS1 formatted data.				
Transmission to repositories systems	No	No	Yes	No	Yes
aUI			01234567891231		456FGRD66

Example 2: GS1 DataMatrix encoding SGTIN (required for aUI) with additional information permitted, but not required
Aggregate level Unique Identifier for standard trade item grouping adding GS1 Application Identifier (240) Additional Product ID assigned by the manufacturer to Example 1

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Unique Identifier	Symbology Identifier	Data Qualifier	GTIN	Data Qualifier	Serial Number	Character required by GS1 after variable length fields	Data Qualifier for optional attribute added by the manufacturer	Additional product identification assigned by the manufacturer
Position within the unique identifier	**Fixed**	**Fixed**	**Fixed**	**Fixed**	**Fixed**	Per rules within GS1 General Specifications V19 or latest equivalent		
Applicable international standards:	ISO/IEC 16022:2006, 18004:2015, or 15417:2007	ISO 15459-2:2015, ISO 15459-3:2014, ISO/IEC 15459-4: 2014 Section 4.1.2 (normative), ISO/IEC 15459-6:2014 Section 5 (normative) and Annex B (informative), and the GS1 General Specifications V.19 (or latest equivalents)						
Values	]d2	01	01234567891231	21	456FGRD66	FNC1 or <GS>	240	ED1234
Process	← Applied by EO →							
Transmission to repositories systems	No	No	Yes	No	Yes	No	No	No
aUI			01234567891231		456FGRD66			

Example 3: GS1-128 encoding Serial Shipping Container Code (SSCC) Aggregate level Unique Identifier for transport (logistic) units using GS1 Application Identifier (00) SSCC

	(1)	(2)	(3)
Unique Identifier	Symbology Identifier	Data Qualifier	SSCC
Position within the unique identifier	**Fixed**	**Fixed**	**Fixed**
Applicable international standards:	ISO/IEC 16022:2006, ISO/IEC 18004:2015, or ISO/IEC 15417:2007	ISO 15459-2:2015, ISO 15459-3:2014, ISO/IEC 15459-1: 2014 Section 4 (normative) and Annexes A and B (informative), and the GS1 General Specifications V.19 (or latest equivalents)	
Values	]d2	00	123456789123456789
Process	← Applied by EO →		
Transmission to repositories systems	No	No	Yes
aUI			123456789123456789

Example 4: Code 128 bar code symbol with the qualifier of ASC MH10 Data Identifier "J"

As defined in ISO/IEC 15459-1:2014 Annex A (informative) Unique identification for transport units section A.3 ASC MH10 unique identification for transport units

	(1)	(2)	(3)
Unique Identifier	Symbology Identifier	ASC MH 10 Data Identifiers	
Values	]C0	J	JNLY1234567890
Process	Applied by EO	Applied by EO	Applied by EO
Transmission to repositories systems	No	No	Yes
aUI			JNLY1234567890