General Specifications Change Notification (GSCN)

The Global Language of Business

WR #	GSCN Name	Effective Date
21-028	Application Identifier (AI) Length description	28 April 2021

Associated Work Request (WR) Number:

N/A

Background: Gen Spec Continuous Improvement

Knowing the length of a GS1 AI is useful for writing software to support parsing of AI strings and the Digital Link (DL) specification. Table P in the DL specification (Section 8.4.3) contains a summary of these AI lengths; however, these "rules" are not in the GS1 General Specifications, or anywhere else. This work request will add similar guidance to the General Specifications

GS1 General Specification Change:

The recommended changes are highlighted below, relative to next GS1 General Specification release

Disclaimer

- **]d2** = GS1 DataMatrix.
- **]Q3** = GS1 QR Code.
- **]J1** = GS1 DotCode.

7.8.1 General

Any GS1 symbology using GS1 Application Identifiers may represent several element strings in concatenated form (see section 5).

For processing as shown in figure 7.3-1, it is necessary to separate each element string, which is performed by the processing routine illustrated in figure 7.8-1.

7.8.2 GS1 Application Identifier lengths

Assigned GS1 Application Identifiers have a defined length. Each GS1 Application Identifier is 2, 3 or 4 digits in length. Knowing these lengths can assist in processing data strings. When a GS1 Application Identifier is approved for application use, the length of the GS1 AI is defined. All GS1 AIs beginning with the same two lead digits SHALL have the same length. Figure 7.8.2-1 provides the defined lengths of GS1 AIs based on the leading two digits.

Figure 7.8.2-1 GS1 Application Identifier lengths

First 2 digits	GS1 AI length	First 2 digits	GS1 AI length	First 2 digits	GS1 AI length	First 2 digits	GS1 AI length	First 2 digits	GS1 AI length
00	2	20	2	34	4	71	3	95	2
01	2	21	2	35	4	72	4	96	2
02	2	22	2	36	4	80	4	97	2
10	2	23	3	37	2	81	4	98	2
11	2	24	3	39	4	82	4	99	2
12	2	25	3	40	3	90	2		
13	2	30	2	41	3	91	2		
15	2	31	4	42	3	92	2		
16	2	32	4	43	4	93	2		
17	2	33	4	70	4	94	2		

~~7.8.2~~7.8.3 Element strings with predefined lengths using GS1 Application Identifiers

Representation of more than one element string in a GS1 symbology using GS1 Application Identifiers may require the use of a separator character between the different element strings to mark their end.

However, in order to enable printing of smaller barcodes, some element strings have been predefined in length, so that their end is determined, and a separator character SHOULD NOT be used. These element strings are shown in the predefined table in figure ~~7.8.5~~7.8.4-2. All other element strings, even if defined as fixed length in section 3, are not of predefined length and are formally variable length fields which require a separator character if followed by another element string.

A separator character SHOULD NOT be used at the end of the last element string represented in a barcode or for certain AI combinations defined by the symbology specification (e.g., some types of GS1 DataBar).