GS1 Application Identifiers

GS1 Application Identifiers (AIs) are numeric prefixes used in barcodes and EPC/RFID-tags to define the meaning and format of encoded data elements.

General facts

- Some of the GS1 barcodes can hold multiple data elements. In such barcodes AIs are needed to qualify the meaning of each data element.
- GS1 Application Identifiers are also used in EPC/RFID tags to encode date elements in the user memory bank.
- GS1 has defined over a 100 Application Identifiers (AIs). Each Application Identifier is a standard two, three, or four digit numeric code. For the full list of GS1 Application Identifiers and their definitions, please refer to section 3.2 of the GS1 General Specifications.

Use of AIs in GS1 barcodes

- Application Identifiers are mandatory in the following GS1 barcode standards: GS1-128, GS1 DataBar, GS1 DataMatrix and GS1 QR Code.
- The GS1 standard requires that a textual representation is included under the barcodes to support human readable interpretation. In this text the AI codes must be placed in parentheses. Please note that the AIs are encoded in the barcode without parentheses.

Example 1 – GS1 DataBar

- AI (01) GTIN
- AI (3103) Net weight with 3 decimal positions

Example 2 – GS1 DataMatrix

- AI (01) GTIN
- AI (17) Expiry date as year, month, date (YYMMDD format)
- AI (10) Batch/lot number