



8.1 Introduction

Some GS1 Data Carriers (GS1-128, GS1 DataBar Expanded, GS1 DataBar Expanded Stacked, GS1 DataMatrix, GS1 Composite and GS1 QR Code) use Application Identifiers to allow information over and above item identification to be represented in bar coded form. Application Identifiers (AIs) uniquely define the meaning and structure of the embedded data which follows.

AIs allow you to represent attribute information such as batch numbers, serial numbers, durability dates, and measurements, as well as item identification, locations, assets, and shipments in a standard format. This ensures that the attribute information encoded by one company can also be scanned and interpreted by any other company in the supply chain.

Each AI is a two-, three-, or four-digit number that defines the meaning and format of the data that follows. This data may comprise alphabetic and/or numeric characters, of any length up to thirty characters. The data fields are either fixed or variable length, depending on the AI. Individual AI structures are given in Table 53 on page 130.

When a pre-defined length GS1 Key and attributes are encoded together, the GS1 Key should appear before the attributes. In most cases pre-defined length element strings should be followed by non pre-defined element strings. The sequence of pre-defined and non pre-defined element strings should be at the discretion of the brand owner. For more information on encodation of AIs see GS1 Australia User Manual Bar Code Technical Details.

If an AI appears on the same item more than once (e.g. if two labels are applied to the same item) the AI must be followed by the same information on each label.

If duplicate element strings (e.g., two serial numbers, two batch/lot numbers, two Extended Packaging URLs) must appear on the same physical entity they must always have the same value in each occurrence on that entity.





8.2 Choosing the Correct AI

At present there are over 100 different AIs available to identify both identification and attribute data. To assist with selection of the appropriate AI we have grouped them below.

Identification of Trade Items

The following AIs identify different types of trade items.

- AI (01) - Global Trade Item Number (GTIN); see page 135
- AI (02) - GTIN of trade items contained in a logistic unit; see page 138
- AI (20) - Product variant; see page 144
- AI (8006) - Identification of the components of a trade item; see page 184

Trade Item Traceability

The following AIs are used for tracking and traceability of items.

- AI (00) - Serial Shipping Container Code (SSCC); see page 134
- AI (10) - Batch or lot number; see page 140
- AI (21) - Serial Number; see page 145
- AI (240) - Additional product identification assigned by the manufacturer; see page 146
- AI (241) - Customer part number; see page 146
- AI(242) - Made-to-Order Variation Number: see page 147
- AI (250) - Secondary serial number; see page 147
- AI (251) - Reference to source entity; see page 148
- AI (422) - Country of origin of a trade item; see page 172
- AI (423) - Country of initial processing (ISO country code); see page 173
- AI (424) - Country of processing; see page 173
- AI (425) - Country of disassembly; see page 174
- AI (426) - Country covering full process chain; see page 174



Date/Time Identification

The following AIs identify different types of dates. When used on non-retail trade items, the dates refer to the trade items contained inside the non-retail trade items.

- AI (11) - Production date; see page 141
- AI (12) - Due date; see page 141
- AI (13) - Packaging date; see page 142
- AI (15) - Best before date; see page 142
- AI (17) - Expiration date; see page 143
- AI (7003) - Expiration Date and Time; see page 176
- AI (8008) - Date and time of production; see page 185

The standard length of a date is six digits, in the format year, month, day (YYMMDD).

The structure is:

Year: the tens and units of the year (e.g. 2003 = 03), which is mandatory

Month: the number of the month (e.g. January = 01), which is mandatory

Day: the number of the day of the relevant month (e.g. second day = 02);
if it not necessary to specify the day, the field must be filled with two zeros.

Since the data field "year" consists of two positions, the century is established by the following procedure:

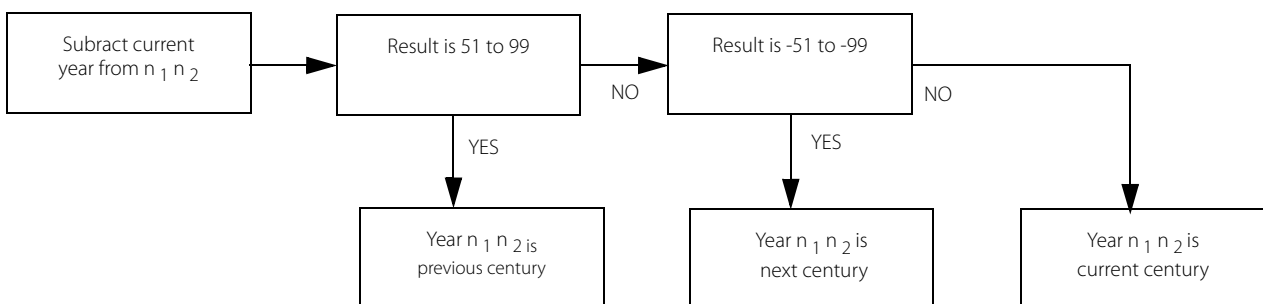


Figure 21 Calculation of Year

Note: The Element String can only specify a date in the range from 49 years in the past to 50 years in the future of the current year.



Documents

The following AI is a document identifier.

- AI (253) - Global Document Type Identifier; see page 149

Quantities

The following AIs identify the quantity of a trade item.

- AI (30) - Variable count; see page 150
- AI (37) - Count of trade items contained within a logistic unit; see page 159

Measurements

Suppliers will choose the value that best suits the respective trade item in terms of weight/size and the degree of accuracy required (e.g. grams) for the representation of weights and measures in the six-position data field.

GS1 encourages the use of the International System of Units (SI). The SI, commonly called the metric system, is now either obligatory or permissible throughout the world. However, in recognizing that not all trade is conducted using the SI metric system and many industries continue to use the inch/pound system (often referred to as "United States of America customary units"), GS1 make available Application Identifiers covering both the SI and inch/pound systems.

Trading partners should agree on the SI or inch/pound system per recognised industry convention. Those who interpret the data should be prepared to translate from one system to the other within their computer system.

For the full list of the AIs for the inch/pound system, contact GS1 Australia.

Metric Measurements – General

The following AI can be used to identify either a trade item or a logistic unit. Where the fourth digit is "n", this is the decimal point indicator, which shows where the decimal point belongs in the actual data. A fourth digit of 0 means that there is no decimal point and the digit 1 means that the decimal point is 1 position before the last digit of the encoded measurement.

- AI (337n) - Kilograms per square metre; see page 158



Metric Measurements – Trade

The following AIs identify different types of metric measurements for trade items. Where the fourth digit is “n”, this is the decimal point indicator, which shows where the decimal point belongs in the actual data. A fourth digit of 0 means that there is no decimal point and the digit 1 means that the decimal point is 1 position before the last digit of the encoded measurement.

- AI (310n) - Net weight in kilograms; see page 151
- AI (311n) - Length or first dimension in metres; see page 152
- AI (312n) - Width, diameter, or second dimension in metres; see page 152
- AI (313n) - Depth, thickness, height, or third dimension in metres; see page 153
- AI (314n) - Area in square metres; see page 153
- AI (315n) - Net volume in litres; see page 154
- AI (316n) - Net volume in cubic metres; see page 154

Metric Measurements – Logistic

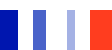
The following AIs identify different types of metric measurements for logistic units. Where the fourth digit is “n”, this is the decimal point indicator, which shows where the decimal point belongs in the actual data. A fourth digit of 0 means that there is no decimal point and the digit 1 means that the decimal point is 1 position before the last digit of the encoded measurement.

- AI (330n) - Gross weight in kilograms; see page 155
- AI (331n) - Length or first dimension in metres; see page 155
- AI (332n) - Width, diameter, or second dimension in metres; see page 156
- AI (333n) - Depth, thickness, height, or third dimension in metres; see page 156
- AI (334n) - Area in square metres; see page 157
- AI (335n) - Gross volume in litres; see page 157
- AI (336n) - Gross volume in cubic metres; see page 158

Extended Packaging

The following AI together with GTIN can be used to reach brand owner authorised information or applications via direct mode.

- AI(8200) - Extended Packaging; see page 189





Amount Payable/Pricing Identification

The following AIs identify amount payable and pricing identification. Where the fourth digit is “n”, this is the decimal point indicator, which shows where the decimal point belongs in the actual data. A fourth digit of 0 means that there is no decimal point and the digit 1 means that the decimal point is 1 position before the last digit of the amount payable.

- AI (390n) - Amount payable – Single monetary area; see page 159
- AI (391n) - Amount payable – With ISO currency code; see page 160
- AI (392n) - Amount payable for a variable measure trade item – Single monetary unit; see page 160
- AI (393n) - Amount payable for a variable measure trade item – With ISO currency code; see page 161
- AI (8005) - Price per unit of measure; see page 183
- AI (8007) - International Bank Account Number (IBAN); see page 185

References

The following AIs identify references. Reference numbers contain information having only an indirect connection with the identification number of the trade item contained. When printed in a bar code on a trade item references supply extra information which may be useful for organisational purposes.

- AI (400) - Customer’s purchase order number; see page 162
- AI (401) - Global Identification Number for Consignment; see page 163
- AI (402) - Global Shipment Identification Number; see page 164
- AI (403) - Routing code; see page 165
- AI (8002) - Electronic Serial Identifier for Cellular Mobile Telephones; see page 180
- AI (8020) - reference number; see page 187





Locations

The following AIs identify locations and their related functions.

Use Global Location Numbers (GLNs) to identify the designation of a company, a department, a warehouse, and so on.

- AI (254) - GLN Extension Component; see page 149
- AI (410) - Ship to (deliver to) GLN; see page 165
- AI (411) - Bill to (invoice to) GLN; see page 166
- AI (412) - Purchased from GLN of the party from whom goods are purchased; see page 167
- AI (413) - Ship for (deliver for/forward to) using GLN; see page 168
- AI (414) - GLN for physical location identification; see page 169
- AI (415) - GLN of the invoicing party; see page 170

Postal Codes

The following AIs identify postal codes. Postal codes are usually allocated by a national postal authority. Generally the codes do not identify a specific location but are used as attribute data in applications requiring sorting or routing of transport packages.

- AI (420) - Ship to (deliver to) postal code within a single postal authority; see page 171
- AI (421) - Ship to (deliver to) postal code with 3 digit ISO country code prefix; see page 171

Special Applications

The following AI is used in the USA as an addition to the GTIN for hospital pack pharmaceuticals.

- AI (22) - HIBCC – Secondary data (quantity, expiration date, and lot number) for specific health industry products; see page 145



70 Series AIs

The following AIs are assigned when an AI request meets all the normal criteria except for if the application is not multi-sectorial, or the application is restricted to a country or a region (e.g. is not global)

- AI (7001) - NATO stock number; see page 175
- AI (7002) - UN/ECE meat carcasses and cuts classification; see page 175
- AI (7004) - Active Potency of certain healthcare products; see page 177
- AI (703s)* - Approval number of processor with three-digit ISO country code; see page 178

* The fourth digit "s" indicates the sequence of procedures in the supply chain.

Dimensions

The following AI identifies the variable dimensions of roll products.

- AI (8001) – Roll Products – Width, length, core, diameter, direction, and splices; see page 179

Assets

The following AIs are used to identify different types of assets.

- AI (8003) - GS1 Identification Key of a returnable asset (GRAI); see page 181
- AI (8004) - GS1 Identification Key of an individual asset (GIAI); see page 182

Consignments

The following AI is used to identify a consignment:

- AI(401) - GS1 Identification Key of a consignment (GINC); see page 163



Shipments

The following AI is used to identify a logical grouping of physical units for the purpose of a transport shipment:

AI(402) - GS1 Identification Key of a shipment (GSIN); see page 164

Services

The following AI is used to identify a service.

- AI (8018) - Global Service Relation Number (GSRN); see page 186

Coupons

The following AIs are used for the identification of promotional coupons with distribution restricted to North America.

- AI (8100) - Coupon extended code – UCC Prefix + offer code; see page 187
- AI (8101) - GS1-128 coupon extended code – UCC Prefix + offer code + end of offer code; see page 188
- AI (8102) - GS1-128 coupon extended code – UCC Prefix; see page 188

Internal

The following AIs can be used for internal purposes and are not to be released into the open market.

- AI (90) - Mutually agreed between trading partners/internal applications (including FACT data identifiers); see page 190
- AI (91) to (99) - Company internal information; see page 190



8.3 All AIs - Detailed Information

The table below summarises the list of AIs currently available.

Please note the following:

- Particular AIs may require the use of a Check Digit on the data and, where appropriate, this is specified in the individual data format descriptions. You may also choose to use Check Digits for your own purposes in any portion of the data content chosen at your own discretion, for example, after batch numbers
- The use of the Symbol Check Character (Modulo 103) is mandatory for all GS1-128 Bar Codes
- The maximum lengths quoted do not include any auxiliary characters used when presenting the data in a GS1-128 Bar Code
- The AI is not part of the data field. When using the data in other applications, for example, in EDI applications, you must drop the AI

Conventions

The conventions that apply for AI data formats are:

- n numeric characters
- an alphanumeric characters (i.e. alphabetic or numeric or mixed).

Examples

Some examples of AI data formats are:

- n3 three numeric characters, fixed length
- n..10 up to ten numeric characters, variable length
- an..30 up to thirty alphanumeric characters, variable length



AI	Full Title	Format		FNC1 required	Data Title	Page
		AI	Data			
00	Serial Shipping Container Code (SSCC)	n2	n18		SSCC	134
01	Global Trade Item Number (GTIN)	n2	n14		GTIN	135
02	GTIN of Trade Items Contained in a Logistic Unit	n2	n14		CONTENT	138
10	Batch or Lot Number	n2	an..20	FNC1	BATCH/LOT	140
11*	Production Date (YYMMDD)	n2	n6		PROD DATE	141
12*	Date Due (YYMMDD)	n2	n6		DUE DATE	141
13*	Packaging Date (YYMMDD)	n2	n6		PACK DATE	142
15*	Best Before Date (YYMMDD)	n2	n6		BEST BEFORE or SELL BY	142
17*	Expiration Date (YYMMDD)	n2	n6		USE BY or EXPIRY	143
20	Variant Number	n2	n2		VARIANT	144
21	Serial Number	n2	an..20	FNC1	SERIAL	145
22	Secondary Data for Specific Health Industry Products	n2	an..29	FNC1	QTY/DATE/BATCH	145
240	Additional Item Identification	n3	an..30	FNC1	ADDITIONAL ID	146
241	Customer Part Number	n3	an..30	FNC1	CUST. PART NO.	146
242	Made-to-Order Variation Number	n3	n...6	FNC1	MTO VARIANT	147
250**	Secondary Serial Number	n3	an..30	FNC1	SECONDARY SERIAL	147
251**	Reference to Source Entity	n3	an..30	FNC1	REF. TO SOURCE	148
253	Global Document Type Identifier (GDTI)	n3	n13+an..17	FNC1	GDTI	149
254	GLN Extension Component	n3	an..20	FNC1	GLN EXTENSION	149
30	Count of Items (Variable Measure Trade Item)	n2	n..8	FNC1	VAR. COUNT	150
310n ****	Net Weight, kilograms (Variable Measure Trade Item)	n4	n6		NET WEIGHT (kg)	151
311n ****	Length or First Dimension, metres (Variable Measure Trade Item)	n4	n6		LENGTH (m)	152
312n ****	Width, Diameter, or Second Dimension, metres (Variable Measure Trade Item)	n4	n6		WIDTH (m)	152

* When only year and month are required DD must be filled with "00".

** The actual data title may be specified by the issuer of the data.

*** The fourth digit of this AI, "s", indicates the sequence of the processors in the supply chain.

**** The fourth digit, n, of this AI is a decimal point indicator; see page 151 for a detailed explanation

TABLE 53 List of Application Identifiers





AI	Full Title	Format		FNC1 required	Data Title	Page
		AI	Data			
313n ****	Depth, Thickness, Height, or Third Dimension, metres (Variable Measure Trade Item)	n4	n6		HEIGHT (m)	153
314n ****	Area, square metres (Variable Measure Trade Item)	n4	n6		AREA (m ²)	153
315n ****	Net Volume, litres (Variable Measure Trade Item)	n4	n6		NET VOLUME (l)	154
316n ****	Net Volume, cubic metres (Variable Measure Trade Item)	n4	n6		NET VOLUME (m ³)	154
330n ****	Logistic weight, kilograms	n4	n6		GROSS WEIGHT (kg)	155
331n ****	Length or First Dimension, metres (Logistic)	n4	n6		LENGTH (m), log	155
332n ****	Width, Diameter, or Second Dimension, metres (Logistic)	n4	n6		WIDTH (m), log	156
333n ****	Depth, Thickness, Height, or Third Dimension, metres (Logistic)	n4	n6		HEIGHT (m), log	156
334n ****	Area, square metres (Logistic)	n4	n6		AREA (m ²), log	157
335n ****	Logistic Volume, litres	n4	n6		VOLUME (l), log	157
336n ****	Logistic Volume, cubic metres	n4	n6		VOLUME (m ³), log	158
337n ****	Kilograms Per Square Metre	n4	n6		KG PER m ²	158
37	Count of Trade Items (Logistic)	n2	n..8	FNC1	COUNT	159
390n ****	Applicable Amount Payable, local currency	n4	n..15	FNC1	AMOUNT	159
391n ****	Applicable Amount Payable with ISO Currency Code	n4	n3+n..15	FNC1	AMOUNT	160

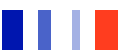
* When only year and month are required DD must be filled with "00".

** The actual data title may be specified by the issuer of the data.

*** The fourth digit of this AI, "s", indicates the sequence of the processors in the supply chain.

**** The fourth digit, n, of this AI is a decimal point indicator; see page 151 for a detailed explanation

TABLE 53 List of Application Identifiers





AI	Full Title	Format		FNC1 required	Data Title	Page
		AI	Data			
392n ****	Applicable Amount Payable, single monetary area (Variable Measure Trade Item)	n4	n..15	FNC1	PRICE	160
393n ****	Applicable Amount Payable with ISO Currency Code (Variable Measure Trade Item)	n4	n3+n..15	FNC1	PRICE	161
400	Customer's Purchase Order Number	n3	an..30	FNC1	ORDER NUMBER	162
401	Global Identification Number for Consignment (GINC)	n3	an..30	FNC1	GINC	163
402	Global Shipment Identification Number (GSIN)	n3	n17	FNC1	GSIN	164
403	Routing Code	n3	an..30	FNC1	ROUTE	165
410	Ship To – Deliver To Global Location Number	n3	n13		SHIP TO LOC	165
411	Bill To – Invoice to Global Location Number	n3	n13		BILL TO	166
412	Purchased From Global Location Number	n3	n13		PURCHASE FROM	167
413	Ship For – Deliver For – Forward To Global Location Number	n3	n13		SHIP FOR LOC	168
414	Identification of a Physical Location Global Location Number	n3	n13		LOC NO.	169
415	Global Location Number of the Invoicing Party	n3	n13		PAY TO	170
420	Ship To – Deliver To Postal Code Within a Single Postal Authority	n3	an..20	FNC1	SHIP TO POST	171
421	Ship To – Deliver To Postal Code With Three-Digit ISO Country Code	n3	n3+an..9	FNC1	SHIP TO POST	171
422	Country of Origin of a Trade Item	n3	n3	FNC1	ORIGIN	172
423	Country of Initial Processing	n3	n3+n..12	FNC1	COUNTRY – INITIAL PROCESS.	173
424	Country of Processing	n3	n3	FNC1	COUNTRY – PROCESS.	173
425	Country of Disassembly	n3	n3	FNC1	COUNTRY – DISASSEMBLY	174
426	Country Covering Full Process Chain	n3	n3	FNC1	COUNTRY – FULL PROCESS	174
7001	NATO Stock Number (NSN)	n4	n13	FNC1	NSN	175
7002	UN/ECE Meat Carcasses and Cuts Classification	n4	an..30	FNC1	MEAT CUT	175
7003	Expiration Date and Time	n4	n10	FNC1	EXPIRY TIME	176
7004	Active Potency	n4	n...4	FNC1	ACTIVE POTENCY	177

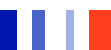
* When only year and month are required DD must be filled with "00".

** The actual data title may be specified by the issuer of the data.

*** The fourth digit of this AI, "s", indicates the sequence of the processors in the supply chain.

**** The fourth digit, n, of this AI is a decimal point indicator; see page 151 for a detailed explanation

TABLE 53 List of Application Identifiers





AI	Full Title	Format		FNC1 required	Data Title	Page
		AI	Data			
703s***	Approval Number of Processor with ISO Country Code	n4	n3+an..27	FNC1	PROCESSOR # s	178
8001	Roll Products – Width, Length, Core Diameter, Direction, and Splices	n4	n14	FNC1	DIMENSIONS	179
8002	Electronic Serial Identifier for Cellular Mobile Telephones	n4	an..20	FNC1	CMT NO.	180
8003	Global Returnable Asset Identifier (GRAI)	n4	n14+an..16	FNC1	GRAI	181
8004	Global Individual Asset Identifier (GIAI)	n4	an..30	FNC1	GIAI	182
8005	Price Per Unit of Measure	n4	n6	FNC1	PRICE PER UNIT	183
8006	Identification of the Components of a Trade Item	n4	n14+n2+n2	FNC1	GCTIN	184
8007	International Bank Account Number (IBAN)	n4	an..30	FNC1	IBAN	185
8008	Date and Time of Production	n4	n8+n..4	FNC1	PROD TIME	185
8018	Global Service Relation Number (GSRN)	n4	n18	FNC1	GSRN	186
8020	Payment Slip Reference	n4	an..25	FNC1	REF NO.	187
8100	GS1-128 Coupon extender Code – U.P.C Prefix + Offer Code	n4	n1+n6	FNC1	-	187
8101	GS1-128 Coupon Extender Code – U.P.C Prefix + Offer Code + End of Offer Code	n4	n1+n5+n4	FNC1	-	188
8102	GS1-128 Coupon Extended Code – U.P.C Prefix	n4	n1+n1	FNC1	-	188
8200	Extended Packaging URL	n4	an..70	FNC1	PRODUCT URL	189
90**	Information Mutually Agreed Between Trading Partners (Including FACT DIs)	n2	an..30	FNC1	INTERNAL	190
91-99**	Company Internal Information	n2	an..30	FNC1	INTERNAL	190

* When only year and month are required DD must be filled with "00".

** The actual data title may be specified by the issuer of the data.

*** The fourth digit of this AI, "s", indicates the sequence of the processors in the supply chain.

**** The fourth digit, n, of this AI is a decimal point indicator; see page 151 for a detailed explanation

TABLE 53 List of Application Identifiers





AI (00) - Identification of a Logistic Unit

Data Format n18

Data Title SSCC

AI	Extension Digit	GS1 Company Prefix	Serial Reference	Check Digit
00	n ₁	n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃ n ₁₄ n ₁₅ n ₁₆ n ₁₇		n ₁₈

TABLE 54 AI (00) Structure

Assign AI (00) to the serial coding of logistic units.

AI (00) uniquely identifies logistic units. It also enables you to identify trade items which are packed differently from one transport package to another, for example, where trade items are picked and packed to meet individual orders. This supports operations such as despatch, distribution, and receiving non-standardised packages.

The Extension Digit can be any number from 0 to 9 and is used to increase the capacity of the serial reference within the SSCC. It is assigned by the company that constructs the SSCC.

The GS1 Company Prefix is allocated by GS1 Member Organisations to the company that allocates the SSCC – here the physical builder or the brand owner of the logistic unit. It makes the SSCC unique worldwide but does not identify the origin of the unit. If you have obtained a prefix to allocate twelve-digit GTINs either directly from GS1 US, GS1 Canada or via GS1 Australia, you must add a filler zero to the front of the prefix after the Extension Digit.

The Serial Reference is structured at the discretion of the company responsible for its assignment to uniquely identify each logistic unit. The method used to allocate the serial reference is at the discretion of the company bar coding the unit.

The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

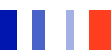
A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org.

For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.

Note: The AI (00) is not part of the Check Digit calculation.

For either method of calculating the Check Digit use the SSCC option.

For more information on numbering logistic units refer to chapter 3 Logistic Units on page 65.





AI (01) - Identification of a Fixed Measure Trade Item

Data Format n14

Data Title GTIN

	AI	Global Trade Item Number (GTIN)	Check Digit
GTIN-8	01	0 0 0 0 0 0 n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇	n ₈
GTIN-12	01	0 0 n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁	n ₁₂
GTIN-13	01	0 n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂	n ₁₃
GTIN-14	01	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃	n ₁₄

TABLE 55 AI (01) Structure

The Application Identifier (01) indicates that the data following is a Global Trade Item Number (GTIN).

The GTIN can include a GTIN-8, GTIN-12, GTIN-13, or, for items **not** scanned at POS, a GTIN-14.

If a GTIN-13, GTIN-12 or GTIN-8 is to be encoded in an ITF-14, GS1-128, GS1 DataBar (refer to second Note below) or GS1 DataMatrix Bar Code, one, two or six filler zeros respectively must be added in front of the GTIN to increase the number of digits to fourteen.

The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org. For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.

Note: The AI (01) is not part of the Check Digit Calculation.,

For a description of the number structures, see chapter 2 Numbering Trade Items on page 16.

Note: GS1 DataBar has been approved for bilateral use between trading partners from 2010. In 2014 GS1 DataBar becomes an open symbology and all scanning environments must be able to read these symbols.





AI (01) - Identification of a Variable Measure Trade Item Scanned at POS

Data Format n14

Data Title GTIN

	AI	Global Trade Item Number (GTIN)	Check Digit
GTIN-12	01	0 0 n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁	n ₁₂
GTIN-13	01	0 n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂	n ₁₃

TABLE 56 AI (01) Structure

The Application Identifier (01) indicates that the data following is a Global Trade Item Number (GTIN).

The GTIN for Variable Measure Trade Items scanned at POS can include a GTIN-13 or a GTIN-12. Currently the only Variable Measure Trade Items that can be identified for POS scanning are Fresh Food Trade Items; see page 29 and page 55.

Variable measure information of the same trade item **must be** associated with the GTIN. These GTINs can only be encoded in a GS1 DataBar Expanded or GS1 DataBar Expanded Stacked Bar Code (refer to second Note below).

The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org. For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.

Note: The AI (01) is not part of the Check Digit Calculation.,

For a description of the number structures, see chapter 2 Numbering Trade Items on page 16.

Note: GS1 DataBar has been approved for bilateral use between trading partners from 2010. In 2014 GS1 DataBar becomes an open symbology and all scanning environments must be able to read these symbols.





AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS

Data Format n14

Data Title GTIN

GTIN-14	AI	Indicator	Global Trade Item Number (GTIN)	Check Digit
GTIN-14	01	9	n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃	n ₁₄

TABLE 57 AI (01) Structure

The Application Identifier (01) indicates that the data following is a Global Trade Item Number (GTIN).

The GTIN for Variable Measure Trade Items not scanned at POS is a GTIN-14 with indicator 9. Variable measure information of the same trade item must be associated with this GTIN-14.

Unlike GTIN-14s used to identify fixed measure trade items, this GTIN-14 is **not** derived from the GTIN of the contained trade items.

The GTIN-14 for Variable Measure Trade Items can be encoded in a GS1-128, GS1 DataBar (refer to second Note below) or GS1 DataMatrix Bar Code.

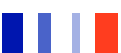
The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org. For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.

Note: The AI (01) is not part of the Check Digit Calculation.,

For a description of the number structures, see chapter 2 Numbering Trade Items on page 16.

Note: GS1 DataBar has been approved for bilateral use between trading partners from 2010. In 2014 GS1 DataBar becomes an open symbology and all scanning environments must be able to read these symbols.





AI (02) - Identification of Fixed Measure Trade Items Contained in a Logistic Unit

Data Format n14

Data Title CONTENT

	AI	Global Trade Item Number (GTIN)	Check Digit
GTIN-8	02	0 0 0 0 0 0 n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇	n ₈
GTIN-12	02	0 0 n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁	n ₁₂
GTIN-13	02	0 n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂	n ₁₃
GTIN-14	02	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃	n ₁₄

The Application Identifier (02) indicates that the data following is the GTIN of the contained trade items. AI (02) may be used only on a logistic unit that is not itself a trade item, and if all trade items that are contained at the same level have the same GTIN.

The GTIN of the Contained Trade Items represents the identification number of the highest level of trade item contained in the logistic unit. If the GTIN of the contained trade items is a GTIN-13, GTIN-12 or GTIN-8, add one, two or five filler zeros respectively in front of the GTIN to increase the number of digits to fourteen.

The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org. For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.

The AI (02) is not part of the Check Digit Calculation.

AI (02) must always be followed with AI (37) - Quantity. It is also a requirement that this AI must be used in conjunction with AI (00) - Serial Shipping Container Code.

AI (02) should never appear on a unit that already carries a unique GTIN.

For more information on numbering logistic units refer to chapter 3 Logistic Units on page 65.



AI (02) - Identification of Variable Measure Trade Items Contained in a Logistic Unit

Data Format n14

Data Title CONTENT.

GTIN-14	AI	Indicator	Global Trade Item Number (GTIN)	Check Digit
	02	9	n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃	n ₁₄

The Application Identifier (02) indicates that the data following is the GTIN of the contained trade items. AI (02) may be used only on a logistic unit that is not itself a trade item, and if all trade items that are contained at the same level have the same GTIN. If the trade items are Variable Measure Trade Items, then this GTIN will be the implied item number that does not appear on the items contained.

The GTIN of the Contained Trade Items represents the identification number of the highest level of trade item contained in the logistic unit. A GTIN-14 with Indicator 9 is required for these Variable Measure Trade Items.

The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org. For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.

The AI (02) is not part of the Check Digit Calculation.

AI (02) must always be followed with AI (37) - Quantity and **a valid trade measure** that must appear on the same unit. It is also a requirement that this AI must be used in conjunction with AI (00) - Serial Shipping Container Code.

AI (02) should never appear on a unit that already carries a unique GTIN.

For more information on numbering logistic units refer to chapter 3 Logistic Units on page 65.



AI (10) - Batch or Lot Number

Data Format an..20

Data Title BATCH/LOT

AI	Batch or Lot Number
10	a_{n_1} – variable length – $a_{n_{20}}$

TABLE 58 AI (10) Structure

Assign AI (10) to identify a batch or lot number. The batch or lot number may refer to either the trade item itself or to items contained. You can use up to twenty alphanumeric characters, not including the AI. The batch or lot number associates an item with information the manufacturer considers relevant for traceability of the trade item.

Examples of information you can include in AI (10) are:

- production line numbers
- shift numbers
- time of production

Any internal structures encoded into a batch or lot number need not be used by a company other than the one creating the number. Other companies must use the complete number to identify the batch or lot number unambiguously. This is particularly important in situations such as a product recall.

AI (10) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit as well as AI (00) - Serial Shipping Container Code.





AI (11) - Production Date

Data Format n6 (YYMMDD)

Data Title PROD DATE

AI	Year	Month	Day
11	n ₁ n ₂	n ₃ n ₄	n ₅ n ₆

TABLE 59 AI (11) Structure

Assign AI (11) to identify the production date. This is the production or assembly date determined by the manufacturer. The date may refer to the trade item itself or to items contained.

The standard length of a date is six digits, in the format year, month, day (YYMMDD). Please see Calculation of Year on page 122 for more information.

AI (11) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.

AI (12) - Due Date for Amount on Payment Slip

Data Format n6 (YYMMDD)

Data Title DUE DATE

AI	Year	Month	Day
12	n ₁ n ₂	n ₃ n ₄	n ₅ n ₆

TABLE 60 AI (12) Structure

Assign AI (12) to identify the date by which the invoice should be paid.

The standard length of a date is six digits, in the format year, month, day (YYMMDD). Please see Calculation of Year on page 122 for more information.

Since this information is an attribute of a Payment Slip Reference Number and the Global Location Number (GLN) of the invoicing party, it must always be used in conjunction with AI (8020) - Payment Slip Reference and AI (415) - Global Location Number of the Invoicing Party.





AI (13) - Packaging Date

Data Format n6 (YYMMDD)

Data Title PACK DATE

AI	Year	Month	Day
13	n ₁ n ₂	n ₃ n ₄	n ₅ n ₆

TABLE 61 AI (13) Structure

Assign AI (13) to identify the packaging date. This is the date when the goods were packed as determined by the packager. The date may refer to the trade item itself or to items contained.

The standard length of a date is six digits, in the format year, month, day (YYMMDD). Please see Calculation of Year on page 122 for more information.

AI (13) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.

AI (15) - Best Before Date

Data Format n6 (YYMMDD)

Data Title BEST BEFORE or SELL BY

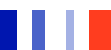
AI	Year	Month	Day
15	n ₁ n ₂	n ₃ n ₄	n ₅ n ₆

TABLE 62 AI (15) Structure

Assign AI (15) to indicate the best before date for the ideal consumption or best effective use date of a product. This is a statement about the quality of the trade item, and may also be referred to as a sell by date or minimum durability date.

The standard length of a date is six digits, in the format year, month, day (YYMMDD). Please see Calculation of Year on page 122 for more information.

AI (15) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.





AI (17) - Expiration Date

Data Format n6 (YYMMDD)

Data Title USE BY or EXPIRY

AI	Year	Month	Day
17	n ₁ n ₂	n ₃ n ₄	n ₅ n ₆

TABLE 63 AI (17) Structure

Assign AI (17) to indicate an expiration date, a date that determines the limit of consumption or use of a trade item. It's meaning is determined based on the trade item context (e.g., for food, the date will indicate the possibility of a direct health risk resulting from use of the product after the date, for pharmaceutical products, it will indicate the possibility of an indirect health risk resulting from the ineffectiveness of the product after the date). It is often referred to as 'use by date' or 'maximum durability date'.

The standard length of a date is six digits, in the format year, month, day (YYMMDD). Please see Date/Time Identification on page 122 for more information.

AI (17) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.



AI (20) - Product Variant

Data Format n2

Data Title VARIANT

AI	Variant Number
20	n ₁ n ₂

TABLE 64 AI (20) Structure

AI (20) may be used to distinguish a variant from the usual item if the variation is not sufficiently significant to require a separate GTIN and is relevant only to the brand owner and any third party acting on its behalf.

The product variant is only for use by the brand owner and any third party acting on its behalf and not for dealings with any other trading partners. The product variant shall not be used where the variation would trigger the allocation of a different GTIN per the GTIN Allocation Rules.

The variant number must only be assigned by the brand owner. It forms a subsidiary numbering facility that can be used in addition to the item's GTIN and allows the creation of 100 variants of a particular trade item. Example, some types of promotions which do not require the allocation of a different GTIN, minor packaging design changes, side loading as opposed to top loading cases. Do not, however, use a product variant number previously used as a different variant of the same trade item until the number has been discontinued for the last twelve months.

Beyond the brand owner and any third party acting on its behalf the data from AI(20) transmitted by a bar code reader is decoded and ignored therefore AI(20) may remain on an item throughout distribution. AI (20) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.



AI (21) - Serial Number

Data Format an..20

Data Title SERIAL

AI	Serial Number
21	a_{n_1} – variable length – $a_{n_{20}}$

TABLE 65 AI (21) Structure

Assign AI (21) to identify a serial number.

A serial number is a unique alphanumeric data string assigned by a company to an entity for its lifetime. Combined with a GTIN the serial number uniquely identifies each individual trade item. Use any structure to generate the serial number. However, it must be possible for any company to use the combination GTIN/serial number for identifying a specific trade item, regardless of the actual structure of the number.

AI (21) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN).

AI (22) - Secondary Data for Specific Health Industry Products

Data Format an..29

Data Title QTY/DATE/BATCH

AI	Secondary Data Fields
22	a_{n_1} – variable length – $a_{n_{29}}$

TABLE 66 AI (22) - Structure

Note: This Element String was developed to accommodate an existing, non-GS1 System, standard used for specific healthcare products. The Element String is **not recommended** for new applications or other industries. The use of the Element Strings denoting expiration date, AI (17), and batch or lot number, AI (10), are recommended instead.

GS1 has established 01 Jan 2013 as the global Sunset date for AI(22) as no continuing business rationale for it exists. After this date, GS1 will return AI(22) to the numbers available for assignment to new Application Identifier requirements.

AI (22) must always be used in conjunction with a GTIN AI (01) but it **must not** be used in conjunction with AI (10) - Batch or Lot Number, AI (17) - Expiration Date, AI (21) - Serial Number, or AI (30) - Variable Count on the same item/unit at the same time.





AI (240) - Additional Product Identification Assigned by the Manufacturer

Data Format an..30

Data Title ADDITIONAL ID

AI	Additional Item Identification
240	an ₁ – variable length– an ₃₀

TABLE 67 AI (240) Structure

AI (240) is used for the coding of additional item identification assigned by the manufacturer.

The data is structured at the discretion of the issuing company. The purpose of AI (240) is to enable identification data other than the GTIN to be represented in a GS1 Bar Code. It is a cross-reference to previously used catalogue numbers. The additional item identification is considered as an attribute of the GTIN e.g. to facilitate migration to the GS1 System during a transitional period. However, it must not be used to replace the GTIN.

AI (240) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.

AI (241) - Customer Part Number

Data Format an..30

Data Title CUST. PART NO.

AI	Customer Part Number
241	an ₁ – variable length– an ₃₀

TABLE 68 AI (241) Structure

The purpose of AI (241) is to enable identification data other than the GTIN to be represented in an GS1 Bar Code. It is only to be used between trading partners that are currently using the customer part number for ordering and have agreed to a timetable to convert to the GTIN for their business purposes. The use of the GTIN and the AI (241) on the trade items is for transitional use while the conversion is taking place. The customer part number must not be used to replace the GTIN.

The customer part number is structured at the discretion of the purchaser of the goods.

AI (241) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or with the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.





AI (242) - Made-to-Order Variation Number

Data Format n...6

Data Title MTO VARIANT

AI	Made-to-Order Variation Number
242	$n_1 - \text{variable length} - n_6$

TABLE 69 AI (242) Structure

The Made-to-Order Variation Number provides the additional data needed to uniquely identify a custom trade item and is only approved for the Maintenance, Repair, and Operation (MRO) industrial supply sector.

AI(242) can only be used with a GTIN-14 with Indicator 9 and **may not** be used with the following GTINs: GTIN-8, GTIN-12, GTIN-13, and GTIN-14 Indicator Digit 1 through 8.

AI (242) will never appear alone but must always be used in conjunction with a GTIN-14 with Indicator 9 as either AI (01) or the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.

AI (250) - Secondary Serial Number

Data Format an..30

Data Title SECONDARY SERIAL

AI	Secondary Serial Number
250	$a_{n_1} - \text{variable length} - a_{n_{30}}$

TABLE 70 AI (250) Structure

While the serial number encoded using AI (21) contains the serial number of the trade item/s, AI (250) is assigned to the coding of the serial number of one of the components of that item.

Only one Secondary Serial Number may be associated with a particular GTIN.

The issuer of the number should define detailed rules for using it. For example, the electronics industry could assign AI (250) to the identification of a chassis serial number.

AI (250) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and AI (21) - Serial Number.

Note: The actual data title may be specified by the issuer of the data.





AI (251) - Reference to Source Entity

Data Format an..30

Data Title REF. TO SOURCE

AI	Reference to Source Entity
251	an ₁ – variable length – an ₃₀

TABLE 71 AI (251) Structure

Use AI (251) to refer back to the original item the trade item was derived from. Reference to source entity is an attribute of a trade item used to refer to the original item from which the trade item was derived. The issuer of the trade item must indicate through other means the source entity to which the data refers.

For example, this may be useful for tracking the original animal from which a carcass of beef is derived. In the event that the original animal was found to be contaminated, all derived products could be isolated. It may also be used for regulatory compliance when recycling parts from various white goods, such as refrigerators, where it is necessary to refer to the original appliance.

AI (251) must always be used in conjunction with AI (01) the GTIN of the trade item.

Note: The actual data title may be specified by the issuer of the data.



AI (253) - Global Document Type Identifier (GDTI)

Data Format n13+an..17

Data Title GDTI

AI	GS1 Company Prefix	Document Type	Check Digit	Serial Component (Optional)
253	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂		n ₁₃	an ₁ – variable length – an ₁₇

TABLE 72 AI (253) Structure

Assign AI (253) to identify a Global Document Type Identifier (GDTI); the serial component is optional.

The number is formed with your allocated GS1 Company Prefix, the document type which is assigned by the document issuer, and the Check Digit. A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org. For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60. For either method of calculating the Check Digit use the GTIN-13 option

Note: The AI (253) is not part of the Check Digit Calculation.,

If you have obtained a prefix to allocate twelve-digit GTINs either directly from GS1 US, GS1 Canada or via GS1 Australia, you must add a filler zero to the front of the prefix after the Application Identifier.

The optional serial component is assigned to a single document for its lifetime. When combined with a GDTI it uniquely identifies an individual document. The serial component field is alpha-numeric and may contain up to seventeen characters. The issuer of the document determines the serial component.

AI (254) - GLN Extension Component

Data Format an..20

Data Title GLN EXTENSION

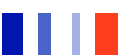
AI	GLN Extension Component
254	an ₁ – variable length– an ₂₀

TABLE 73 AI (254) Structure

Use AI (254) when the data field contains an extension component of a Global Location Number (GLN).

The use of AI (254) is optional but when used it must appear in conjunction with AI (414), identification of a physical location.

The GS1 Company Prefix owner determines the extension component. Once determined, it is unchanged for the life of the associated GLN.





AI (30) - Variable Count

Data Format n..8

Data Title VAR. COUNT

AI	Count of Items
30	$n_1 - \text{variable length} - n_8$

TABLE 74 AI (30) Structure

Assign AI (30) to identify the number of items contained in a Variable Measure Trade Item.

AI (30) must not be used to indicate the contained quantity of a Fixed Measure Trade Item. However, if this AI appears on a Fixed Measure Trade Item (in error) it should not invalidate the item identification but should be treated as redundant data.

In order to generate a short bar code, always enter an even number of digits in the data field by inserting a leading zero.

AI (30) must always be used in conjunction with:

a GTIN for a variable measure trade item (e.g., GTIN-12 or GTIN-13 for trade items scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Scanned at POS on page 136 or GTIN-14s starting with Indicator digit 9 for trade items not scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)

or

the identification of variable measure content of a logistic unit (see AI (02) - Identification of Variable Measure Trade Items Contained in a Logistic Unit on page 139)



AI (310n) - Net Weight – Kilograms – Trade

Data Format n6

Data Title NET WEIGHT (kg)

AI	Value
310n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 75 AI (310n) Structure

Assign AI (310n) to identify the net weight in kilograms of a trade item.

The fourth digit in the AI represents the decimal point indicator, which shows where the decimal point belongs in the actual encoded value. For example, the digit 0 means that there is no decimal point, and the digit 1 means that the decimal point is between n₅ and n₆. If the digit is 3 the decimal point would be between n₃ and n₄

$$(3100)000035 = 000035\text{kg} = 35\text{kg}$$

$$(3103)000035 = 0000\overset{3}{\underbrace{35}}\text{kg} = 0.035\text{kg} = 35\text{g}$$

In other words, starting at the very right of the measurement data field, count to the left between the digits by the amount stated in the decimal point indicator.

Note: That in the final expanded measurement, the decimal point may appear before the field of six digits, for example:

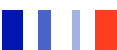
$$(3109)000035 = 0.\overset{9}{\underbrace{00000000}}35\text{kg}$$

AI (310n) must always be used in conjunction with:

a GTIN for a variable measure trade item (e.g., GTIN-12 or GTIN-13 for trade items scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Scanned at POS on page 136 or GTIN-14s starting with Indicator digit 9 for trade items not scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)

or

the identification of variable measure content of a logistic unit (see AI (02) - Identification of Variable Measure Trade Items Contained in a Logistic Unit on page 139)





AI (311n) - Length or First Dimension – Metres – Trade

Data Format n6

Data Title LENGTH (m)

AI	Value
311n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 76 AI (311n) Structure

Assign AI (311n) to identify the length in metres, of a trade item. For further information on the fourth digit (n), please refer to page 151.

AI (311n) must always be used in conjunction with:

a GTIN for a variable measure trade item (e.g., GTIN-12 or GTIN-13 for trade items scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Scanned at POS on page 136 or GTIN-14s starting with Indicator digit 9 for trade items not scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)

or

the identification of variable measure content of a logistic unit (see AI (02) - Identification of Variable Measure Trade Items Contained in a Logistic Unit on page 139)

AI (312n) - Width, Diameter or Second Dimension – Metres – Trade

Data Format n6

Data Title WIDTH (m)

AI	Value
312n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 77 AI (312n) Structure

Assign AI (312n) to identify the width, diameter, or second dimension of a trade item in metres.

For further information on the fourth digit (n), please refer to page 151.

AI (312n) must always be used in conjunction with:

a GTIN for a variable measure trade item (e.g., GTIN-12 or GTIN-13 for trade items scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Scanned at POS on page 136 or GTIN-14s starting with Indicator digit 9 for trade items not scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)





AI (313n) - Depth, Thickness, Height or Third Dimension – Metres – Trade

Data Format n6

Data Title HEIGHT (m)

AI	Value
313n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 78 AI (313n) Structure

Assign AI (313n) to identify the depth, thickness, height, or third dimension of a trade item in metres.

For further information on the fourth digit (n), please refer to page 151.

AI (313n) must always be used in conjunction with:

a GTIN for a variable measure trade item (e.g., GTIN-12 or GTIN-13 for trade items scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Scanned at POS on page 136 or GTIN-14s starting with Indicator digit 9 for trade items not scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)

AI (314n) - Area – Square Metres – Trade

Data Format n6

Data Title AREA (m²)

AI	Value
314n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 79 AI (314n) Structure

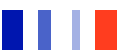
Assign AI (314n) to identify the area, in square metres of a trade item. For further information on the fourth digit (n), please refer to page 151.

AI (314n) must always be used in conjunction with:

a GTIN for a variable measure trade item (e.g., GTIN-12 or GTIN-13 for trade items scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Scanned at POS on page 136 or GTIN-14s starting with Indicator digit 9 for trade items not scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)

or

the identification of variable measure content of a logistic unit (see AI (02) - Identification of Variable Measure Trade Items Contained in a Logistic Unit on page 139).





AI (315n) - Net Volume – Litres – Trade

Data Format n6

Data Title NET VOLUME (l)

AI	Value
315n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 80 AI (315n) Structure

Assign AI (315n) to identify the net volume of a trade item in litres. For further information on the fourth digit (n), please refer to page 151.

AI (315n) must always be used in conjunction with:

a GTIN for a variable measure trade item (e.g., GTIN-12 or GTIN-13 for trade items scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Scanned at POS on page 136 or GTIN-14s starting with Indicator digit 9 for trade items not scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)

or

the identification of variable measure content of a logistic unit (see AI (02) - Identification of Variable Measure Trade Items Contained in a Logistic Unit on page 139)

AI (316n) - Net Volume – Cubic Metres – Trade

Data Format n6

Data Title NET VOLUME (m³)

AI	Value
316n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 81 AI (316n) Structure

Assign AI (316n) to identify the net volume of a trade item in cubic metres. For further information on the fourth digit (n), please refer to page 151.

AI (316n) must always be used in conjunction with:

a GTIN for a variable measure trade item (e.g., GTIN-12 or GTIN-13 for trade items scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Scanned at POS on page 136 or GTIN-14s starting with Indicator digit 9 for trade items not scanned at POS, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)

or





the identification of variable measure content of a logistic unit (see AI (02) - Identification of Variable Measure Trade Items Contained in a Logistic Unit on page 139)

AI (330n) - Gross Weight – Kilograms – Logistic

Data Format n6

Data Title GROSS WEIGHT (kg)

AI	Value
330n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 82 AI (330n) Structure

Assign AI (330n) to identify the gross weight of a logistic unit (the weight of the goods includes the packaging).

For further information on the fourth digit (n), please refer to page 151.

The AI (330n) must always be used in conjunction with:

AI (00) - Serial Shipping Container Code (SSCC see AI (00) - Identification of a Logistic Unit on page 134)

or

a variable measure GTIN for trade item not scanned at POS (i.e., a GTIN-14 starting with the digit 9, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)

AI (331n) - Length or First Dimension – Metres – Logistic

Data Format n6

Data Title LENGTH (m), log

AI	Value
331n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 83 AI (331n) Structure

Assign AI (331n) to identify the length or first dimension of a logistic unit or the maximum horizontal dimension, in metres, of a logistic unit. For further information on the fourth digit (n), please refer to page 151.

AI (331n) must always be used in conjunction with:

AI (00) - Serial Shipping Container Code (SSCC see AI (00) - Identification of a Logistic Unit on page 134)

or

a variable measure GTIN for trade item not scanned at POS (i.e., a GTIN-14 starting with the digit 9, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)





AI (332n) - Width, Diameter or Second Dimension – Metres – Logistic

Data Format n 6

Data Title WIDTH (m), log

AI	Value
332n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 84 AI (332n) Structure

Assign AI (332n) to identify the width, diameter, or the second dimension of a logistic unit in metres. For further information on the fourth digit (n), please refer to page 151.

AI (332n) must always be used in conjunction with:

AI (00) - Serial Shipping Container Code (SSCC see AI (00) - Identification of a Logistic Unit on page 134)

or

a variable measure GTIN for trade item not scanned at POS (i.e., a GTIN-14 starting with the digit 9, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)

AI (333n) - Depth, Thickness, Height or Third Dimension – Metres – Logistic

Data Format n 6

Data Title HEIGHT (m), log

AI	Value
333n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 85 AI (333n) Structure

Assign AI (333n) to identify the depth, thickness, height or third dimension of a logistic unit in metres. For further information on the fourth digit (n), please refer to page 151.

AI (333n) must always be used in conjunction with:

AI (00) - Serial Shipping Container Code (SSCC see AI (00) - Identification of a Logistic Unit on page 134)

or

a variable measure GTIN for trade item not scanned at POS (i.e., a GTIN-14 starting with the digit 9, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)





AI (334n) - Area – Square Metres – Logistic

Data Format n6

Data Title AREA (m²), log

AI	Value
334n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 86 AI (334n) Structure

Assign AI (334n) to identify the area, in square metres of a logistic unit. For further information on the fourth digit (n), please refer to page 151.

AI (334n) must always be used in conjunction with:

AI (00) - Serial Shipping Container Code (SSCC see AI (00) - Identification of a Logistic Unit on page 134)

or

a variable measure GTIN for trade item not scanned at POS (i.e., a GTIN-14 starting with the digit 9, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)

AI (335n) - Gross Volume – Litres – Logistic

Data Format n6

Data Title VOLUME (l), log

AI	Value
335n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 87 AI (335n) Structure

Assign AI (335n) to identify gross volume in litres of a logistic unit. For further information on the fourth digit (n), please refer to page 151.

AI (335n) must always be used in conjunction with:

AI (00) - Serial Shipping Container Code (SSCC see AI (00) - Identification of a Logistic Unit on page 134)

or

a variable measure GTIN for trade item not scanned at POS (i.e., a GTIN-14 starting with the digit 9, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)





AI (336n) - Gross Volume – Cubic Metres – Logistic

Data Format n6

Data Title VOLUME (m³), log

AI	Value
336n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 88 AI (336n) Structure

Assign AI (336n) to identify the gross volume in cubic metres.

For further information on the fourth digit (n), please refer to page 151.

AI (336n) must always be used in conjunction with:

AI (00) - Serial Shipping Container Code (SSCC see AI (00) - Identification of a Logistic Unit on page 134)

or

a variable measure GTIN for trade item not scanned at POS (i.e., a GTIN-14 starting with the digit 9, see AI (01) - Identification of a Variable Measure Trade Item Not Scanned at POS on page 137)

AI (337n) - Kilograms Per Square Metre

Data Format n6

Data Title KG PER m²

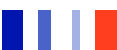
AI	Value
337n	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 89 AI (337n) Structure

Assign AI (337n) to indicate that the encoded data represents a measure of the kilograms per square metre of the trade item.

For further information on the fourth digit (n), please refer to page 151.

AI (337n) must always be associated with AI (01) - Global Trade Item Number (GTIN)





AI (37) - Count of Trade Items Contained in a Logistic Unit

Data Format n..8

Data Title COUNT

AI	Count of Trade Items
37	n ₁ – variable length – n ₈

TABLE 90 AI (37) Structure

Assign AI (37) to identify the number of trade items contained within a logistic unit.

AI (37) is not stand alone and must only ever be used in conjunction with AI (02) - GTIN of Trade Items Contained within a Logistic Unit and AI (00) - Serial Shipping Container Code (SSCC).

AI (390n) - Amount Payable - Single Monetary Area

Data Format n..15

Data Title AMOUNT

AI	Applicable Amount Payable
390n	n ₁ – variable length – n ₁₅

TABLE 91 AI (390n) Structure

Use AI (390n) to identify the amount payable with the respective payment slip expressed in the local currency.

If it is necessary to indicate the currency in which the amount is expressed, AI (391n) should be used to instead of AI (390n); only one amount payable may be applied on a payment slip therefore AI(390n) should not be used with AI (391n).

The fourth digit in the AI, “n”, indicates the implied decimal point position where, for example, the digit zero (0) means that there is no decimal point and the digit one (1) means that the decimal point is before the last position of the amount payable. The table below shows examples of the decimal point indication.

Application Identifier	Encoded Value	Actual Value
3 9 0 2	1 2 3 4 5 6 7	1 2 3 4 5 . 6 7
3 9 0 1	1 2 3 4 5 6 7	1 2 3 4 5 6 . 7 0
3 9 0 0	1 2 3 4 5	1 2 3 4 5 . 0 0

This element string is an attribute to the payment slip reference number and the Global Location Number (GLN) and therefore must always be used in conjunction with AI (8020) - Payment Slip Reference and AI (415) - Global Location Number of the Invoicing Party.





AI (391n) - Amount Payable and ISO Currency Code

Data Format n3+n..15

Data Title AMOUNT

AI	ISO Currency Code	Applicable Amount Payable
391n	n ₁ n ₂ n ₃	n ₄ – variable length– n ₁₈

TABLE 92 AI (391n) Structure

Use AI (391n) to encode the amount payable with the respective payment slip expressed in the indicated currency.

The fourth digit in the AI, “n”, indicates the implied decimal point position where, for example, the digit zero (0) means that there is no decimal point and the digit one (1) means that the decimal point is before the last position of the amount payable. The table below shows examples of the decimal point indication.

Application Identifier	ISO Currency Code	Encoded Value	Actual Value
3 9 1 2	036	1 2 3 0	1 2 . 3 0
3 9 1 1	036	1 2 3 0	1 2 3 . 0 0
3 9 1 0	036	1 2 3	1 2 3 . 0 0

The ISO currency code field contains the three-digit currency number of the numerical international standard ISO/IEC 4217 and indicates the currency in which the amount payable is expressed. An ISO currency code of 036 indicates that the currency is the Australian dollar.

This information is an attribute of the payment slip reference number and the Global Location Number (GLN) and therefore must always be used in conjunction with the AI (8020) - Payment Slip Reference and AI (415) - Global Location Number of the Invoicing Party.

As only one amount payable may be applied on a payment slip this must not be associated with AI (390n) - Amount Payable - Single Monetary Area.

AI (392n) - Amount Payable for a Variable Measure Trade Item – Single Monetary Area

Data Format n..15

Data Title PRICE

AI	Applicable Amount Payable
392n	n ₁ – variable length – n ₁₅

TABLE 93 AI (392n) Structure

Use AI (392n) to encode the amount payable in a single monetary area for a trade item which carries a variable measure GTIN, expressed in local currency.





The fourth digit in the AI, “n”, indicates the implied decimal point position where, for example, the digit zero (0) means that there is no decimal point and the digit one (1) means that the decimal point is before the last position of the amount payable.

AI(392n) is used as an attribute to a variable measure trade item and therefore has a mandatory association with:

a variable count or a trade measure when scanned at POS and identified with a GTIN-12 or GTIN-13

variable measure information when not scanned at POS and identified with a GTIN-14 with indicator 9.

AI (392n) cannot be used with AI (393n).

AI (393n) - Amount Payable for a Variable Measure Trade Item and ISO Currency Code

Data Format n3+n..15

Data Title PRICE

AI	ISO Currency Code	Applicable Amount Payable
393n	n ₁ n ₂ n ₃	n ₄ – variable length – n ₁₈

TABLE 94 AI (393n) Structure

Use AI (393n) to encode the amount payable with ISO currency code for a Variable Measure Trade Item expressed in the indicated currency.

The fourth digit in the AI, “n”, indicates the implied decimal point position where, for example, the digit zero (0) means that there is no decimal point and the digit one (1) means that the decimal point is before the last position of the amount payable. The table below shows examples of the decimal point indication.

Application Identifier	ISO Currency Code	Encoded Value	Actual Value
3 9 3 2	036	1 2 3 0	1 2 . 3 0
3 9 3 1	036	1 2 3 0	1 2 3 . 0 0
3 9 3 0	036	1 2 3	1 2 3 . 0 0

The ISO currency code field contains the three-digit currency number of the numerical international standard ISO/IEC 4217 and indicates the currency in which the amount payable is expressed. An ISO currency code of 036 indicates that the currency is the Australian dollar.

AI(393n) is used as an attribute to a variable measure trade item and therefore has a mandatory association with:

a variable count or a trade measure when scanned at POS and identified with a GTIN-12 or GTIN-13

variable measure information when not scanned at POS and identified with a GTIN-14 with indicator 9.

AI (393n) cannot be used with AI (392n).





AI (400) - Customer's Purchase Order Number

Data Format an..30

Data Title ORDER NUMBER

AI	Customer's Purchase Order Number
400	an ₁ – variable length – an ₃₀

TABLE 95 AI (400) Structure

Assign AI (400) to identify the customer's purchase order number.

The Customer's Purchase Order Number field contains the number of the purchase order assigned by the company that issued the order. The composition and content of the order number is left to the discretion of the customer.

Representing the purchase order number in bar code form allows you to check receipts of goods and automatically match the trade items to a delivery note and/or purchase order. In addition, it can facilitate more accurate invoice matching procedures.

AI (400) may be processed as stand-alone information where applicable or processed with the identification data of the same unit.

AI (400) and its associated data is restricted for use between two trading partners and must be removed from the unit before the unit leaves the premises of the customer.



AI (401) - Global Identification Number for Consignment (GINC)

Data Format an..30

Data Title GINC



TABLE 96 AI (401) Structure

The Global Identification Number for Consignment is assigned to identify a logical grouping of goods (one or more physical entities) that has been consigned to a freight forwarder and is intended to be transported as a whole. The consignment number must be allocated by a freight forwarder (or a carrier acting as a freight forwarder) or a consignor, but only if the prior agreement of the freight forwarder is given. Typically AI(401) encodes a House Way Bill (HWB) Number.

According to the Multi Industry Scenario for Transport (MIST):

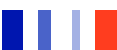
- A freight forwarder is a party that arranges the carriage of goods including connected services and/or associated formalities on behalf of a shipper or consignee
- A carrier is a party that undertakes the transportation of goods from one point to another
- A consignor is the party that sends the goods and a consignee the party that receives the goods

The GS1 Company Prefix used is the one belonging to the carrier; it makes the number unique worldwide.

If you have obtained a prefix to allocate twelve-digit GTINs either directly from GS1 US, GS1 Canada or via GS1 Australia, you must add a filler zero to the front of the prefix after the Application Identifier.

The Consignment Information is assigned at the discretion of the owner of the GS1 Company Prefix to uniquely identify each consignment.

The GINC may be processed as stand-alone information where applicable or with other identification data appearing on the same unit. Normally AI (401) is used in conjunction with AI (00) - Serial Shipping Container Code (SSCC). The SSCC individually identifies each parcel being part of a shipment. The GINC may be marked on the different components of a shipment to provide a common reference.





AI (402) - Global Shipment Identification Number (GSIN)

Data Format n17

Data Title GSIN

AI	GS1 Company Prefix →	← Shipper Reference	Check Digit
402	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃ n ₁₄ n ₁₅ n ₁₆		n ₁₇

TABLE 97 AI (402) Structure

The Global Shipment Identification Number is a number assigned by a consignor (seller) of goods. It provides a globally unique number that identifies a logical grouping of logistic units for the purpose of a transport shipment from that consignor (seller) to the consignee (buyer). It identifies the logical grouping of one or several logistic units each identified with a separate SSCC and containing trade items as being part of a specific seller/buyer relationship and that travels under one despatch advice and/or Bill of Lading. It may be used by all parties in the transport chain as a communication reference, for example, in Electronic Data Interchange (EDI) messages where it can be used as a shipment reference and/or a consignor's loading list. The GSIN fulfils the requirements of the UCR (Unique Consignment Reference) of the World Customs Organisation (WCO)

The GS1 Company Prefix used is the one belonging to the consignor (seller); it makes the number unique worldwide.

If you have obtained a prefix to allocate twelve-digit GTINs either directly from GS1 US, GS1 Canada or via GS1 Australia, you must add a filler zero to the front of the prefix after the Application Identifier.

The Shipper Reference is assigned by the consignor. It is recommended that numbers are allocated sequentially.

The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org. For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.

Note: For either method of calculating the Check Digit add a filler zero to the front of the number and use the SSCC option. The AI (402) is not part of the Check Digit Calculation.

The GSIN may be processed as stand alone information where applicable or with the identification data appearing on the same unit.





AI (403) - Routing Code

Data Format an..30

Data Title ROUTE

AI	Routing Code
403	a_{n_1} – variable length – $a_{n_{30}}$

TABLE 98 AI (403) Structure

Assign AI (403) to encode data which represents the routing code as determined by the parcel carrier.

AI (403) is an attribute to the Serial Shipping Container Code (SSCC) and is intended to provide a migration path to the adoption of a yet-to-be-defined international solution. The routing code must not be used to encode information which other AIs have been created (such as a Ship to Postal Code).

The routing code is issued by the parcel carrier and its contents and structure are at the discretion of the parcel carrier issuing the code. If a parcel carrier wishes to enter co-operative agreements with other parcel carriers, then a mutually agreed indicator is required to indicate the structure of the routing code.

As AI (403) is an attribute to the SSCC it must be used in conjunction with AI (00) - Serial Shipping Container Code (SSCC).

AI (410) - Ship To – Deliver To Global Location Number (GLN)

Data Format n13

Data Title SHIP TO LOC

AI	GS1 Company Prefix	Location Reference	Check Digit
410	$n_1 n_2 n_3 n_4 n_5 n_6 n_7 n_8 n_9 n_{10} n_{11} n_{12}$		n_{13}

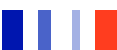
TABLE 99 AI (410) Structure

Assign AI (410) to indicate the GLN of the recipient of a logistic unit. The GLN refers to the address where a particular transport unit identified with an SSCC is to be delivered.

The GS1 Company Prefix is that of the addressee and makes the number unique worldwide. The structure and content of the Location Reference is at the discretion of the owner of the GS1 Company Prefix to uniquely identify each location.

The **Check Digit** is mathematically calculated and ensures the whole number is correct.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org. For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.





For either method of calculating the Check Digit, use the GTIN-13 option.

This data may be processed as stand-alone information where applicable or together with the GS1 identification number to which it relates.

For more information on Global Location Numbers refer to chapter 4, section 4.1 Numbering Locations on page 76.

AI (411) - Bill To – Invoice To Global Location Number (GLN)

Data Format n13

Data Title BILL TO

AI	GS1 Company Prefix →	← Location Reference	Check Digit
411	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂		n ₁₃

TABLE 100 AI (411) Structure

Assign AI (411) to indicate the GLN of the addressee of an invoice. The GLN is used to identify physical locations or parties.

The GS1 Company Prefix is that of the addressee and makes the number unique worldwide. The structure and content of the Location Reference is at the discretion of the owner of the GS1 Company Prefix to uniquely identify each location.

The **Check Digit** is mathematically calculated and ensures the whole number is correct.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org. For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.

For either method of calculating the Check Digit, use the GTIN-13 option.

This data may be processed as stand-alone information where applicable or together with the GS1 identification number to which it relates.

For more information on Global Location Numbers refer to chapter 4, section 4.1 Numbering Locations on page 76.



AI (412) - Purchased from Global Location Number (GLN)

Data Format n13

Data Title PURCHASE FROM

AI	GS1 Company Prefix →	← Location Reference	Check Digit
412	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂		n ₁₃

TABLE 101 AI (412) Structure

Assign AI (412) to indicate the GLN of the company from which the respective trade item has been purchased.

The GS1 Company Prefix is that of the supplier and makes the number unique worldwide. The structure and content of the Location Reference is at the discretion of the owner of the GS1 Company Prefix to uniquely identify each location.

The **Check Digit** is mathematically calculated and ensures the whole number is correct.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org. For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.

For either method of calculating the Check Digit, use the GTIN-13 option.

This data may be processed as stand-alone information where applicable or together with the GS1 identification number to which it relates.

For more information on Global Location Numbers refer to chapter 4, section 4.1 Numbering Locations on page 76.



AI (413) - Ship For – Deliver For – Forward to Global Location Number (GLN)

Data Format n13

Data Title SHIP FOR LOC

AI	GS1 Company Prefix →	← Location Reference	Check Digit
413	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂		n ₁₃

TABLE 102 AI (413) Structure

AI (413) indicates that the data field contains the GLN of the internal or subsequent final destination.

The GS1 Company Prefix is that of the company that allocates the GLN and makes the number unique worldwide. The structure and content of the Location Reference is at the discretion of the owner of the GS1 Company Prefix to uniquely identify each location.

The **Check Digit** is mathematically calculated and ensures the whole number is correct.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org. For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.

For either method of calculating the Check Digit, use the GTIN-13 option.

This data may be processed as stand-alone information where applicable or together with the GS1 identification number to which it relates.

This AI can be used in conjunction with AI (410) - Ship To, where the Ship-To GLN identifies the location of the intermediary destination such as a warehouse or cross docking station.

Note: This data is for the internal use of the consignee and is not to be used by the carrier.

For more information on Global Location Numbers refer to chapter 4, section 4.1 Numbering Locations on page 76.





AI (414) - Identification of a Physical Location – Global Location Number (GLN)

Data Format n13

Data Title LOC NO.

AI	GS1 Company Prefix →	← Location Reference	Check Digit
414	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂		n ₁₃

TABLE 103 AI (414) Structure

AI (414) is assigned to identify the GLN of a physical location.

The GS1 Company Prefix is that of the holder of the physical location and makes the number unique worldwide. The structure and content of the Location Reference is at the discretion of the owner of the GS1 Company Prefix to uniquely identify each location.

The **Check Digit** is mathematically calculated and ensures the whole number is correct.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org. For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.

For either method of calculating the Check Digit, use the GTIN-13 option.

This data may be processed as stand-alone information where applicable or together with the GS1 identification number to which it relates.

For more information on Global Location Numbers refer to chapter 4, section 4.1 Numbering Locations on page 76.



AI (415) - Global Location Number of the Invoicing Party

Data Format n13

Data Title PAY TO

AI	GS1 Company Prefix →	← Location Reference	Check Digit
415	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂		n ₁₃

TABLE 104 AI (415) Structure

Assign AI (415) to identify the GLN of the invoicing party.

The GS1 Company Prefix is that of the invoicing party and makes the number unique worldwide. The structure and content of the Location Reference is at the discretion of the owner of the GS1 Company Prefix to uniquely identify each location.

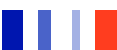
The **Check Digit** is mathematically calculated and ensures the whole number is correct.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org. For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.

For either method of calculating the Check Digit, use the GTIN-13 option.

This data may be processed as stand-alone information where applicable or together with the GS1 identification number to which it relates. This AI and its associated data are mandatory information for use on a payment slip. Together with AI (8020) - Payment Slip Reference Number, it identifies a payment slip uniquely.

For more information on Global Location Numbers refer to chapter 4, section 4.1 Numbering Locations on page 76.





AI (420) - Ship to – Deliver to Postal Code Within a Single Postal Authority

Data Format an..20

Data Title SHIP TO POST

AI	Postal Code
420	an ₁ – variable length– an ₂₀

TABLE 105 AI (420) Structure

Assign AI (420) to indicate the postal code of the party to which goods should be delivered (the addressee). It is assumed that the “ship from” and “ship to” parties are located under the same postal authority.

The postal code field contains the postal code of the addressee as defined by the appropriate postal authority. It is left justified and must not contain any fill characters.

AI (420) cannot be used in conjunction with AI (421) on the same unit at the same time. It is normally processed as stand-alone information

AI (421) - Ship to – Deliver to Postal Code With Three-Digit ISO Country Code

Data Format n3+an..9

Data Title SHIP TO POST

AI	ISO Country Code	Postal Code
421	n ₁ n ₂ n ₃	an ₄ – variable length – an ₁₃

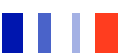
TABLE 106 AI (421) Structure

Assign AI (421) to indicate the ISO country code and the postal code of the addressee (the party to which goods should be delivered). It is assumed that the “ship from” and “ship to” parties are located under different postal authorities.

The ISO Country Code is coded according to the three-digit numerical international standard ISO 3166.

The postal code field contains the postal code of the addressee as defined by the appropriate postal authority. It is left justified and must not contain any fill characters.

AI (421) cannot be used in conjunction with AI (420) on the same unit at the same time. It is normally processed as stand-alone information.





AI (422) - Country of Origin of a Trade Item

Data Format n3

Data Title ORIGIN

AI	ISO Country Code
422	n ₁ n ₂ n ₃

TABLE 107 AI (422) Structure

AI (422) is assigned to identify the ISO country code of the country of origin of the trade item. The country of origin is normally the country in which the goods have been produced or manufactured. However, due to a wide range of definitions for country of origin, it is the manufacturer's responsibility to assign the correct country of origin.

Use the three-digit country codes established in the International Standard ISO 3166.

AI (422) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.

AI (422) must not be used in conjunction with AI (426) - Country Covering Full Process Chain on the same item at the same time.



AI (423) - Country of Initial Processing

Data Format n3+n..12

Data Title COUNTRY – INITIAL PROCESS

AI	ISO Country Code(s)
423	n ₁ n ₂ n ₃ ... n ₁₅

TABLE 108 AI (423) Structure

Assign AI (423) to encode the ISO country code(s) of the country or countries of initial processing of the trade item. The country of initial processing is normally the country in which the trade item has been produced or manufactured. However, in certain applications such as livestock fattening, there may be up to five different countries involved in the initial processing, all of which should be indicated. It is the responsibility of the supplier to allocate the correct country code(s).

The ISO Country Code is coded according to the three-digit numerical international standard ISO 3166.

AI (423) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.

AI (423) must not be used in conjunction with AI (426) - Country Covering Full Process Chain on the same item at the same time.

AI (424) - Country of Processing

Data Format n3

Data Title COUNTRY – PROCESS

AI	ISO Country Code
424	n ₁ n ₂ n ₃

TABLE 109 AI (424) Structure

Assign AI (424) to identify the ISO country code of the country of processing of the trade item. It is the responsibility of the processor of the trade item to allocate the correct country code.

The ISO Country Code is coded according to the three-digit numerical international standard ISO 3166.

AI (424) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.

AI (424) must not be used in conjunction with AI (426) - Country Covering Full Process Chain on the same item at the same time.





AI (425) - Country of Disassembly

Data Format n3

Data Title COUNTRY – DISASSEMBLY

AI	ISO Country Code
425	n ₁ n ₂ n ₃

TABLE 110 AI (425) Structure

Assign AI (425) to identify the ISO country code of the country of disassembly of the trade item. It is the responsibility of the party doing the disassembly of the trade item to allocate the correct country code.

The ISO Country Code is coded according to the three-digit numerical international standard ISO 3166.

AI (425) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.

AI (425) must not be used in conjunction with AI (426) - Country Covering Full Process Chain on the same item at the same time.

AI (426) - Country Covering Full Process Chain

Data Format n3

Data Title COUNTRY – FULL PROCESS

AI	ISO Country Code
426	n ₁ n ₂ n ₃

TABLE 111 AI (426) Structure

Assign AI (426) to identify the ISO country code of the country where all the processing of the trade item took place. If this AI is used, the full processing of a trade item must have taken place in a single country. This is particularly important in certain applications, such as livestock (where it would cover things such as the animal's birth, fattening and slaughter), where processing could take place in different countries. In situations like this, AI 426 may not be used. It is the responsibility of the supplier to allocate the correct country code.

The ISO Country Code is coded according to the three-digit numerical international standard ISO 3166.

AI (426) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.





AI (7001) - NATO Stock Number (NSN)

Data Format n13

Data Title NSN

AI	NATO Supply Classification	Assigning Country	Sequential Number
7001	n ₁ n ₂ n ₃ n ₄	n ₅ n ₆	n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃

TABLE 112 AI (7001) Structure

The NATO stock number is the number allocated to any item of supply in the NATO Alliance. It is the responsibility of the country that manufactures or controls the design of the item to allocate the number.

This is only for use within the context of the supply within the NATO Alliance. Use of it is subject to the rules and regulations of the Allied Committee 135 (AC/135), the NATO Group of National Directors on Codification.

AI (7001) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.

AI (7002) - UN/ECE Meat Carcasses and Cuts Classification

Data Format an..30

Data Title MEAT CUT

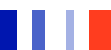
AI	UN/ECE Product Classification
7002	a ₁ – variable length – a ₃₀

TABLE 113 AI (7002) Structure

Assign AI (7002) to encode the UN/ECE meat carcasses and cuts classification code.

The UN/ECE meat carcasses and cuts code is an attribute of a Global Trade Item Number (GTIN) that denotes the trade description of the product. This AI is only for use within the context of UN/ECE standards for the quality of meat carcasses and cuts (bovine, porcine, ovine, and caprine).

AI (7002) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.





AI (7003) - Expiration Date and Time

Data Format n10(YMMDDHHMM)

Data Title EXPIRY TIME

AI	Expiry Date and Time				
	Year	Month	Day	Hour	Minutes
7003	n1n2	n3n4	n5n6	n7n8	n9n10

TABLE 114 AI (7003) Structure

The manufacturer determines the expiration date and time, which is relevant only for short duration and for items that will not be sent on long distances and not outside of the time zone. A typical application of AI (7003) is in hospitals or public pharmacies for special, customised, products which may have a "life duration" shorter than one single day. The life duration varies according to the pharmaceutical substances used in the treatment. The precise expiration date and time is defined at the end of the manufacturing process and can be bar coded on the product label as an attribute to the item's GTIN.

Where there is no business requirement to express the expiration date to the nearest hour (or less), AI (17) Expiration Date should be used.

The structure is:

Year: the tens and units of the year (e.g., 2007 = 07), which is mandatory

Month: the number of the month (e.g., January = 01), which is mandatory

Day: the number of the day of the relevant month (e.g., second day = 02), which is mandatory.

Hour: the number of the hour based on local 24-hour time (e.g., 2 p.m. = 14), which is mandatory

Minutes: the number of the minutes based on local time (e.g., 15 minutes. = 15); if it is not necessary to specify the minutes, the field must be filled with two zeros. Time will then be interpreted as ending on the hour (e.g., 14:00 = expiry time at 14:00)

AI(7003) should be associated with the GTIN to which it relates.





AI (7004) - Active Potency

Data Format n...4

Data Title ACTIVE POTENCY

AI	Active Potency
7004	n ₁ – variable length– n ₄

The Active Potency of certain healthcare products (e.g. certain biologics, such as haemophilia products) varies by batch, and this will vary, within agreed tolerances, from the Nominal Potency of the trade item.

Both the Nominal Potency and the Active Potency of the item are measured in International Units (IUs).

The Active Potency must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and AI(10) - Batch or Lot Number of the trade item to which it relates.

Printing of the Active Potency on the item is controlled by regulation. Human Readable Interpretation of the Active Potency is not required on the trade item.



AI (703s) - Approval Number of Processor With Three-Digit ISO Country Code

Data Format n3+an..27

Data Title PROCESSOR # s

AI	ISO Country Code	Approval Number of Processor
703s	n ₁ n ₂ n ₃	an ₄ – variable length– an ₃₀

TABLE 115 AI (703s) Structure

The AI (703s) indicates that the data field contains the three-digit ISO country code and the approval number of the processor (an..27) of a trade item. As many processors may be involved, each with an individual approval number, the fourth digit of the AI indicates the sequence of the processors. For a typical meat supply chain, the following sequence would be used:

- AI (7030) slaughterhouse
- AI (7031) first deboning/cutting hall
- AI (7032) to (7037) second through seventh processing location (cutting hall)
- AI (7038) slaughterhouse
- AI (7039) slaughterhouse

Use the three-digit country codes established in the International Standard ISO 3166.

The approval number of the processor designates the approval number of the company who did the processing. The approval number is usually assigned by a national or pluri-national authority.

AI (703s) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.



AI (8001) - Roll Products - Width, Length, Core Diameter, Direction, Splices

Data Format n14

Data Title DIMENSIONS

AI	Variable Values of a Roll Product				
8001	n ₁ n ₂ n ₃ n ₄	n ₅ n ₆ n ₇ n ₈ n ₉	n ₁₀ n ₁₁ n ₁₂	n ₁₃	n ₁₄

TABLE 116 AI (8001) Structure

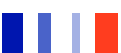
Owing to the method of production, some roll product cannot be numbered according to standard criteria which have been determined in advance. They are, therefore, classified as variable items. For those products where the standard trade measures are not sufficient, the following guidelines should be used.

The identification of a roll product consists of the GTIN and the variable attributes. The basic product (e.g. a certain type of paper) is numbered with a GTIN-14 and the variables contain information about the special features of the particular trade item that has been produced.

The variable values of a roll product, n₁ to n₁₄, consist of the following data:

- n₁ – n₄ slit width in millimetres (width of roll) 4 digits
- n₅ – n₉ actual length in metres 5 digits
- n₁₀ – n₁₂ internal core diameter in millimetres 3 digits
- n₁₃ winding direction (face out 0, face in 1, undefined 9) 1 digit
- n₁₄ number of splices (0 to 8 = actual number, 9 = number unknown) 1 digit

AI (8001) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9).





AI (8002) - Cellular Mobile Telephone Identifier (CMTI)

Data Format an..20

Data Title CMT NO.

AI	Serial Number
8002	a_{n_1} – variable length – $a_{n_{20}}$

TABLE 117 AI (8002) Structure

AI (8002) contains the serial number of a cellular mobile telephone.

The Serial Number uniquely identifies each mobile telephone within a given authority for special control purposes. It is not considered as an attribute of the identification of the telephone as a trade item.

This information from the bar code can be used to automate and speed up the capture of CMTIs.

As AI (8002) is assigned by different issuing authorities, the numbers are not unique worldwide.



AI (8003) - Global Returnable Asset Identifier (GRAI)

Data Format n14+an..16(optional)

Data Title GRAI

AI	GS1 Company Prefix	Asset Type	Check Digit	Serial Number (Optional)
8003	0 n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂		n ₁₃	a _{n1} – variable length – a _{n16}

TABLE 118 AI (8003) Structure

Assign AI (8003) to identify a global returnable asset as a physical item with no reference to the contents.

A returnable asset is a reusable package or transport equipment of a certain value such as a beer keg, gas cylinder, plastic pallet or crate. AI (8003) facilitates the tracking and inventory control of returnable assets.

The GS1 Company Prefix is the one allocated to the owner of the asset.

A filler zero is added as shown in the table above to generate 14 digits in the asset identification number field. If you have obtained a prefix to allocate twelve-digit GTINs, either directly from GS1 US, GS1 Canada or via GS1 Australia, you must add a second filler zero.

The Asset Type is a number assigned by the owner of the asset to uniquely identify each type of asset.

The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org.

For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.

Note: The AI (8003) is not part of the Check Digit calculation.

For either method of calculating the Check Digit use the GTIN-13 option (filler zero(s) should not be entered).

The Serial Number (optional) is assigned by the owner of the asset. It identifies an individual asset within a given asset type. The field is alphanumeric and variable in length up to 16 characters.

When it is not possible to assign an asset type (e.g. for museum exhibit), or when the type of asset is not required by the application (e.g. when the item is only used for a single type of asset then AI (8004) - Global Individual Asset Identifier (GIAI), should be used.

For more information on asset numbering refer to chapter 4 Numbering Assets on page 79.





AI (8004) - Global Individual Asset Identifier (GIAI)

Data Format an..30

Data Title GIAI

AI	GS1 Company Prefix →	Individual Asset Reference →
8004	$n_1 - n_g$	$a_{g+1} - \text{variable length} - a_n (n \leq 30)$

TABLE 119 AI (8004) Structure

AI (8004) is assigned for the unique identification of assets to provide a means to store relevant data.

The identification facilitates tracking and inventory control of the unique asset and recording the asset's history (e.g. life cycle, refilling of contents)

This Element String must never be used to identify the entity as a trade item or logistic unit. If an asset is transferred between parties, the GIAI cannot be used for ordering the asset. However, asset identification may be exchanged between parties for the purpose of traceability.

The GS1 Company Prefix is the one allocated to the company assigning the individual asset reference; it makes the number unique worldwide.

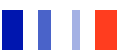
If you have obtained a prefix to allocate twelve-digit GTINs either directly from GS1 US or via GS1 Australia, you must add a filler zero to the front of the prefix, after the Application Identifier.

The Individual Asset Reference is alphanumeric and allocated and structured at the discretion of the holder of the GS1 Company Prefix, however each GIAI must be unique for each individual asset being identified.

The entire GIAI must not longer than 30 characters and the GS1 System recommends that GIAIs be allocated sequentially and not contain classifying elements.

AI (8004) may not be used to replace AI (00) - Serial Shipping Container Code (SSCC) or a GTIN.

For more information on asset numbering refer to chapter 4 Numbering Assets on page 79





AI (8005) - Price Per Unit of Measure

Data Format n6

Data Title PRICE PER UNIT

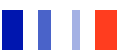
AI	Price Per Unit of Measure
8005	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆

TABLE 120 AI (8005) Structure

Assign AI (8005) to indicate the price per unit of measure of price marked goods on a Variable Measure Trade Item to discriminate price variants of the same item. It is considered as an attribute of the respective trade item and not as part of its identification.

Content and structure of the price per unit of measure field are left to the discretion of the trading partners.

AI (8005) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN) and a variable measure GTIN (a GTIN-14 starting with 9), or AI (02) - GTIN of Trade Items Contained in a Logistic Unit, a variable measure GTIN, and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI(00) Serial Shipping Container Code.





AI (8006) - Identification of the Components of a Trade Item

Data Format n14+n2+n2

Data Title GCTIN

AI	Global Trade Item Number (GTIN)	Relative number of the Component Within the Assembly	Total Number of Components in the Assembly
8006	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃ n ₁₄	n ₁₅ n ₁₆	n ₁₇ n ₁₈

TABLE 121 AI (8006) Structure

AI (8006) identifies a trade item and the enumeration of its contents.

In some industries (such as furniture), a unit intended to be sold to the final consumer may be composed of several physical parcels. This AI is marked on each individual physical unit of the same retail unit. In shipping or receiving applications, it ensures that all components of the same retail unit are present.

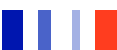
The GTIN is the number under which the whole item is traded.

The Relative Number Field shows the consecutive number of a particular component within the assembly. A component of a given trade item must always be identical for the respective trade item.

The Total Number Field shows the total number of components of the trade item.

This AI should never be used on retail units which may be sold separately.

The AI (8006) can never be associated with another GTIN.





AI (8007) - International Bank Account Number (IBAN)

Data Format an..30

Data Title IBAN

AI	International Bank Account Number
8007	a_{n_1} – variable length– $a_{n_{30}}$

TABLE 122 AI (8007) Structure

Use AI (8007) to indicate the International Bank Account Number (IBAN) as defined in ISO 13616. The standard specifies the elements of an IBAN that are used to facilitate international processing of data in financial environments and other industries.

It indicates the International Bank Account Number to which the amount of the respective payment slip is to be transferred. The invoicing party determines the applicable bank account number.

AI (8007) must always be used in conjunction with AI (8020) - Payment Slip Reference and AI (415) - Global Location Number (GLN) of the Invoicing Party.

AI (8008) - Date and Time of Production

Data Format n8+n..4(optional)

Data Title PROD TIME

AI	YY	MM	DD	HH	MM (Optional)	SS (Optional)
8008	$n_1 n_2$	$n_3 n_4$	$n_5 n_6$	$n_7 n_8$	$n_9 n_{10}$	$n_{11} n_{12}$

TABLE 123 AI (8008) Structure

Assign AI (8008) to encode both the date and time of production or assembly as determined by the manufacturer. The date and time may refer to the trade item itself or to the items contained.

The standard length of this data is variable up to twelve digits in the format: year, month, day, hour, minutes, seconds (YYMMDDHHMMSS). If minutes or seconds are not required these fields may be left out. For year calculation see Figure 21 on page 122.

AI (8008) must always be used in conjunction with AI (01) - Global Trade Item Number (GTIN), or the combined AI (02) - GTIN of Trade Items Contained in a Logistic Unit and AI (37) - Count of Trade Items Contained in a Logistic Unit together with AI (00) - Serial Shipping Container Code.





AI (8018) - Global Service Relation Number (GSRN)

Data Format n18

Data Title GSRN

AI	GS1 Company Prefix	Service Reference	Check Digit
8018	n ₁ n ₂ n ₃ n ₄ n ₅ n ₆ n ₇ n ₈ n ₉ n ₁₀ n ₁₁ n ₁₂ n ₁₃ n ₁₄ n ₁₅ n ₁₆ n ₁₇		n ₁₈

TABLE 124 AI (8018) Structure

Assign AI (8018) to identify a Global Service Relation Number (GSRN). The GSRN is used to identify the recipient of services in the context of a service relationship and provides a means for the service provider to store data relevant to services provided to the recipient.

The GS1 Company Prefix is the one allocated to the service provider.

If you have obtained a prefix to allocate twelve-digit GTINs either directly from GS1 US or via GS1 Australia, you must add a filler zero to the front of the prefix, after the Application Identifier.

The Service Reference is structured at the discretion of the owner of the GS1 Company Prefix to uniquely identify each service relation.

The Check Digit is mathematically calculated and ensures the whole number is correct. Correct calculation is essential for successful scanning of the bar code.

A Check Digit Calculator Program which will automatically calculate the Check Digit can be obtained from the GS1 Australia web site at www.gs1au.org.

For instruction on manually calculating the Check Digit please refer to chapter 2, section 2.4 Manual Check Digit Calculation on page 60.

Note: The AI (8018) is not part of the Check Digit calculation.

For either method of calculating the Check Digit use the SSCC option.

The GSRN must remain unique for a period well beyond the lifetime of the records relevant to this service relationship.



AI (8020) - Payment Slip Reference Number

Data Format an..25

Data Title REF NO.

AI	Payment Slip Reference Number
8020	a_{n_1} – variable length – $a_{n_{25}}$

TABLE 125 AI (8020) Structure

Assign AI (8020) to identify the Payment Slip Reference Number.

The Payment Slip Reference Number, assigned by the invoicing party, is information identifying a payment slip within a given Global Location Number (GLN) of the invoicing party. Together with the GLN of the invoicing party it identifies a payment slip uniquely.

AI (8020) must be used in conjunction with AI (415) - Global Location Number of the Invoicing Party.

AI (8100) - Coupon Extended Code – U.P.C. Prefix + Offer Code

Data Format n1+n5

AI	U.P.C. Prefix	Offer Code
8100	n_1	n_2 n_3 n_4 n_5 n_6

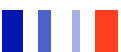
TABLE 126 AI (8100) Structure

AI (8100) identifies the U.P.C. Prefix followed by a five-digit offer code generated by the coupon issuer.

The Offer Code is assigned by the issuer and identifies a particular promotion.

The Coupon Extender code is an attribute always used in conjunction with the GS1 US coupon number.

For more information regarding coupon numbers in Australia please refer to chapter 2, section 2.2.7 Coupons on page 41.





AI (8101) - Coupon Extended Code – U.P.C. Prefix + Offer + End of Offer Code

Data Format n1+n5+n4

AI	U.P.C. Prefix	Offer Code	Expiration Date (Month + Year)
8101	n ₁	n ₂ n ₃ n ₄ n ₅ n ₆	n ₇ n ₈ n ₉ n ₁₀

TABLE 127 AI (8101) Structure

AI (8101) identifies the U.P.C. Prefix followed by a five-digit offer code, followed by a four-digit expiration date (MMYY).

The Offer Code is assigned by the issuer and identifies a particular promotion.

The Expiration Date indicates the end of the redemption period of the coupon.

The Coupon Extender code is an attribute always used in conjunction with the GS1 US coupon number.

For more information regarding coupon numbers in Australia please refer to chapter 2, section 2.2.7 Coupons on page 41.

AI (8102) - Coupon Extended Code – U.P.C. Prefix

Data Format n1+n1

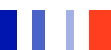
AI	Filler Digit	U.P.C. Prefix
8102	0	n ₁

TABLE 128 AI (8102) Structure

AI (8102) data consists of the U.P.C. Prefix preceded by a filler zero. The filler zero is added to generate an even number of digits in the Element String.

It is an attribute always used in conjunction with the GS1 US coupon number.

For more information regarding coupon numbers in Australia please refer to chapter 2, section 2.2.7 Coupons on page 41.





AI (8200) - Extended Packaging URL

Data Format an..70

Data Title PRODUCT URL

AI	Data field
8200	a_{n_1} – variable length – $a_{n_{70}}$

TABLE 129 AI (8200) Structure

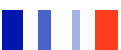
Assign AI(8200) to identify the brand owner authorized URL to be used in mandatory association with GTIN AI (01) encoded in one symbol.

GTIN and AI (8200) are encoded as separate data elements in the bar code but once decoded they are processed in a standard fashion as <http://brandownerassignedURL.com/gtin> where “gtin” equals 14 numeric digits.

As an example, a trade item’s GTIN, when expressed as 14 digits is 01234567890128. When encoded in the symbol, the sequence for encoding is (01) 01234567890128 (8200) <http://brandownerassignedURL.com>, but when processed it expressed as a URL <http://brandownerassignedURL.com/01234567890128>. The example provided is not intended to constrain the brand owner to the use of http:/. This is provided for illustration of encoding and processing only.

These values are also expressed in Non-HRI text on the label (see Section HRI Rules on page 227). If GTIN attributes beyond AI(8200) are encoded together with GTIN and AI(8200) they are processed and expressed in text on the label as <http://brandownerassignedURL.com/gtin/serialnumber> where serial number equals up to 20 alphanumeric characters.

For the purpose of direct mode, in addition to the symbol required for indirect mode, when AI (8200) is used, GS1 DataMatrix and GS1 QR Code are the only approved data carriers. In the case of Regulated Healthcare Consumer Trade Items, only GS1 DataMatrix is approved.





AI (90) - Information Mutually Agreed Between Trading Partners

Data Format an..30

Data Title INTERNAL

AI	Data field
90	an ₁ – variable length – an ₃₀

TABLE 130 AI (90) Structure

AI (90) identifies information of any kind mutually agreed between two trading partners with distribution restricted to the trading partners. The data field may also be used to incorporate data preceded by FACT Data Identifiers.

Companies may devise their own internal numbering structures of any length up to thirty alphanumeric characters.

The bar code containing AI (90) should be removed from any trade item that leaves the jurisdiction of the trading partners.

Note: The actual data title may be specified by the issuer of the data.

AI (91) to (99) - Company Internal Information

Data Format an..30

Data Title INTERNAL

AI	Data field
91-99	an ₁ – variable length – an ₃₀

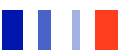
TABLE 131 AI (91) to (99) Structure

Assign AIs (91) through (99) to internal applications.

Companies may devise their own internal code structures for their own purposes and encode them together with these AIs at their own discretion. These AIs are not to be used for open trade applications.

As an additional security against ambiguity, these AIs should be removed from any item that leaves the jurisdiction of the company.

Note: The actual data title may be specified by the issuer of the data.





8.4 Compatibility of EPCglobal Tag Data Standard and GS1 General Specifications

The GS1 Application Identifiers, defined in this section may be used in GS1 Bar Codes in line with GS1 Application Standards. GS1 Application Identifiers may also be used in GS1 endorsed RFID tags as defined in the latest version of the EPC Tag Data Standards that can be found on:

<http://www.epcglobalinc.org/standards/tds/>