

The Global Language of Business

General Specifications Change Notification (GSCN)

WR #	GSCN Name	Effective Date
22-071	Denote optional components of GS1 AIs	April 2022

Associated Work Request (WR) Number:

GSMP:

N/A

Background:

Certain GS1 Application Identifiers (AIs) have optional components that are not a required part of the data structure. Section 3.2 of the GS1 General Specifications and other format references do not reflect that there is an optional component.

With no clear manner to show a component is optional, there has been confusion around what is or is not required when using these AIs. These AIs are AI (253) Global Document Type Identifier, AI (255) Global Coupon Number, AI (7007) Harvest Date, AI (8003) Global Returnable Asset Identifier, and AI (8008) Date and Time of Production.

Additionally, during the development of this GSCN it was noted that "predefined length" has a specific meaning related to AIs, see Figure 7.8.5-2 of the General Specifications V22. Thus, "predefined length" has been changed to "fixed length" as the broader and more appropriate phrase.

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3.2 GS1 Application Identifiers in numerical order

AI	Data Content	Format ⁽¹⁾	FNC1 required ⁽⁴⁾	Data title
00	Identification of a logistic unit (SSCC): AI (00)	N2+N18		SSCC
01	Identification of a trade item (GTIN): AI (01)	N2+N14		GTIN
02	Identification of trade items contained in a logistic unit: AI (02)	N2+N14		CONTENT
10	Batch or lot number: AI (10)	N2+X20	(FNC1)	BATCH/LOT
11 (2)	Production date: AI (11)	N2+N6		PROD DATE
12 (2)	Due date for amount on payment slip: AI (12)	N2+N6		DUE DATE
13 (2)	Packaging date: AI (13)	N2+N6		PACK DATE
15 (2)	Best before date: AI (15)	N2+N6		BEST BEFORE or BEST BY
16 (2)	Sell by date: AI (16)	N2+N6		SELL BY
17 (2)	Expiration date: AI (17)	N2+N6		USE BY OR EXPIRY
20	Internal product variant: AI (20)	N2+N2		VARIANT
21	Serial number: AI (21)	N2+X20	(FNC1)	SERIAL
22	Consumer product variant: AI (22)	N2+X20	(FNC1)	CPV
235	Third Party Controlled, Serialised Extension of Global Trade Item Number (GTIN) (TPX): AI (235)	N3+X28	(FNC1)	ТРХ
240	Additional product identification assigned by the manufacturer: AI (240)	N3+X30	(FNC1)	ADDITIONAL ID
241	Customer part number: AI (241)	N3+X30	(FNC1)	CUST. PART NO.
242	Made-to-Order variation number: AI (242)	N3+N6	(FNC1)	MTO VARIANT
243	Packaging component number: AI (243)	N3+X20	(FNC1)	PCN
250	Secondary serial number: AI (250)	N3+X30	(FNC1)	SECONDARY SERIAL
251	Reference to source entity: AI (251)	N3+X30	(FNC1)	REF. TO SOURCE
253	Global Document Type Identifier (GDTI): AI (253)	N3+N13[+X17]	(FNC1)	GDTI
254	Global Location Number (GLN) extension component: AI (254)	N3+X20	(FNC1)	GLN EXTENSION COMPONENT
255	Global Coupon Number (GCN): AI (255)	N3+N13[+N12]	(FNC1)	GCN
30	Variable count of items: AI (30)	N2+N8	(FNC1)	VAR. COUNT
310n ⁽³⁾	Net weight, kilograms (variable measure trade item)	N4+N6		NET WEIGHT (kg)
311n ⁽³⁾	Length or first dimension, metres (variable measure trade item)	N4+N6		LENGTH (m)
312n ⁽³⁾	Width, diameter, or second dimension, metres (variable measure trade item)	N4+N6		WIDTH (m)
313n ⁽³⁾	Depth, thickness, height, or third dimension, metres (variable measure trade item)	N4+N6		HEIGHT (m)
314n ⁽³⁾	Area, square metres (variable measure trade item)	N4+N6		AREA (m ²)
315n ⁽³⁾	Net volume, litres (variable measure trade item)	N4+N6		NET VOLUME (I)
316n ⁽³⁾	Net volume, cubic metres (variable measure trade item)	N4+N6		NET VOLUME (m ³)
320n ⁽³⁾	Net weight, pounds (variable measure trade <u>item)</u>	N4+N6		NET WEIGHT (lb)
321n ⁽³⁾	Length or first dimension, inches (variable measure trade item)	N4+N6		LENGTH (i)

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AI	Data Content	Format ⁽¹⁾	FNC1 required ⁽⁴⁾	Data title
322n ⁽³⁾	Length or first dimension, feet (variable measure trade item)	N4+N6		LENGTH (f)
323n ⁽³⁾	Length or first dimension, yards (variable measure trade item)	N4+N6		LENGTH (y)
324n ⁽³⁾	Width, diameter, or second dimension, inches (variable measure trade item)	N4+N6		WIDTH (i)
325n ⁽³⁾	Width, diameter, or second dimension, feet (variable measure trade item)	N4+N6		WIDTH (f)
326n ⁽³⁾	Width, diameter, or second dimension, yards (variable measure trade item)	N4+N6		WIDTH (y)
327n ⁽³⁾	Depth, thickness, height, or third dimension, inches (variable measure trade item)	N4+N6		HEIGHT (i)
328n ⁽³⁾	Depth, thickness, height, or third dimension, feet (variable measure trade item)	N4+N6		HEIGHT (f)
329n ⁽³⁾	Depth, thickness, height, or third dimension, yards (variable measure trade item)	N4+N6		HEIGHT (y)
330n ⁽³⁾	Logistic weight, kilograms	N4+N6		GROSS WEIGHT (kg)
331n ⁽³⁾	Length or first dimension, metres	N4+N6		LENGTH (m), log
332n ⁽³⁾	Width, diameter, or second dimension, metres	N4+N6		WIDTH (m), log
333n ⁽³⁾	Depth, thickness, height, or third dimension, metres	N4+N6		HEIGHT (m), log
334n ⁽³⁾	<u>Area, square metres</u>	N4+N6		AREA (m ²), log
335n ⁽³⁾	Logistic volume, litres	N4+N6		VOLUME (I), log
336n ⁽³⁾	Logistic volume, cubic metres	N4+N6		VOLUME (m ³), log
337n ⁽³⁾	Kilograms per square metre	N4+N6		KG PER m ²
340n ⁽³⁾	Logistic weight, pounds	N4+N6		GROSS WEIGHT (lb)
341n ⁽³⁾	Length or first dimension, inches	N4+N6		LENGTH (i), log
342n ⁽³⁾	Length or first dimension, feet	N4+N6		LENGTH (f), log
343n ⁽³⁾	Length or first dimension, yards	N4+N6		LENGTH (y), log
344n ⁽³⁾	Width, diameter, or second dimension, inches	N4+N6		WIDTH (i), log
345n ⁽³⁾	Width, diameter, or second dimension, feet	N4+N6		WIDTH (f), log
346n ⁽³⁾	Width, diameter, or second dimension, yard	N4+N6		WIDTH (y), log
347n ⁽³⁾	Depth, thickness, height, or third dimension, inches	N4+N6		HEIGHT (i), log
348n ⁽³⁾	Depth, thickness, height, or third dimension, feet	N4+N6		HEIGHT (f), log
349n ⁽³⁾	Depth, thickness, height, or third dimension, yards	N4+N6		HEIGHT (y), log
350n ⁽³⁾	Area, square inches (variable measure trade item)	N4+N6		AREA (i ²)
351n ⁽³⁾	Area, square feet (variable measure trade item)	N4+N6		AREA (f ²)
352n ⁽³⁾	Area, square yards (variable measure trade item)	N4+N6		AREA (y ²)
353n ⁽³⁾	Area, square inches	N4+N6		AREA (i ²), log
354n ⁽³⁾	Area, square feet	N4+N6		AREA (f ²), log
355n ⁽³⁾	Area, square yards	N4+N6		AREA (y ²), log
356n ⁽³⁾	Net weight, troy ounces (variable measure trade item)	N4+N6		NET WEIGHT (t)
357n ⁽³⁾	Net weight (or volume), ounces (variable measure trade item)	N4+N6		NET VOLUME (oz)
360n ⁽³⁾	Net volume, quarts (variable measure trade item)	N4+N6		NET VOLUME (q)

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AI	Data Content	Format ⁽¹⁾	FNC1 required ⁽⁴⁾	Data title
361n ⁽³⁾	<u>Net volume, gallons U.S. (variable measure</u> <u>trade item)</u>	N4+N6		NET VOLUME (g)
362n ⁽³⁾	Logistic volume, quarts	N4+N6		VOLUME (q), log
363n ⁽³⁾	Logistic volume, gallons U.S.	N4+N6		VOLUME (g), log
364n ⁽³⁾	Net volume, cubic inches (variable measure trade item)	N4+N6		VOLUME (i ³)
365n ⁽³⁾	Net volume, cubic feet (variable measure trade item)	N4+N6		VOLUME (f ³)
366n ⁽³⁾	Net volume, cubic yards (variable measure trade item)	N4+N6		VOLUME (y ³)
367n ⁽³⁾	Logistic volume, cubic inches	N4+N6		VOLUME (i ³), log
368n ⁽³⁾	Logistic volume, cubic feet	N4+N6		VOLUME (f ³), log
369n ⁽³⁾	Logistic volume, cubic yards	N4+N6		VOLUME (y ³), log
37	Count of trade items or trade item pieces contained in a logistic unit: AI (37)	N2+N8	(FNC1)	COUNT
390n ⁽³⁾	Amount payable or coupon value - Single monetary area: AI (390n)	N4+N15	(FNC1)	AMOUNT
391n ⁽³⁾	Amount payable and ISO currency code: AI (391n)	N4+N3+N15	(FNC1)	AMOUNT
392n ⁽³⁾	Amount payable for a variable measure trade item – Single monetary area: AI (392n)	N4+N15	(FNC1)	PRICE
393n ⁽³⁾	Amount payable for a variable measure trade item and ISO currency code: AI (393n)	N4+N3+N15	(FNC1)	PRICE
394n ⁽³⁾	Percentage discount of a coupon: AI (394n)	N4+N4	(FNC1)	PRCNT OFF
395n ⁽³⁾	Amount payable per unit of measure single monetary area (variable measure trade item): AI (395n)	N4+N6	(FNC1)	PRICE/UoM
400	Customer's purchase order number: AI (400)	N3+X30	(FNC1)	ORDER NUMBER
401	Global Identification Number for Consignment (GINC): AI (401)	N3+X30	(FNC1)	GINC
402	Global Shipment Identification Number (GSIN): AI (402)	N3+N17	(FNC1)	GSIN
403	Routing code: AI (403)	N3+X30	(FNC1)	ROUTE
410	Ship to - Deliver to Global Location Number (GLN): AI (410)	N3+N13		SHIP TO LOC
411	Bill to - Invoice to Global Location Number (GLN): AI (411)	N3+N13		BILL TO
412	Purchased from Global Location Number (GLN): AI (412)	N3+N13		PURCHASE FROM
413	Ship for - Deliver for - Forward to Global Location Number (GLN): AI (413)	N3+N13		SHIP FOR LOC
414	Identification of a physical location - Global Location Number (GLN): AI (414)	N3+N13		LOC No
415	Global Location Number (GLN) of the invoicing party: AI (415)	N3+N13		ΡΑΥ ΤΟ
416	Global Location Number (GLN) of the production or service location: AI (416)	N3+N13		PROD/SERV LOC
417	Party Global Location Number (GLN): AI (417)	N3+N13		PARTY
420	Ship-to / Deliver-to postal code within a single postal authority: AI (420)	N3+X20	(FNC1)	SHIP TO POST
421	Ship-to / Deliver-to postal code with three-digit ISO country code: AI (421)	N3+N3+X9	(FNC1)	SHIP TO POST

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AI	Data Content	Format ⁽¹⁾	FNC1 required ⁽⁴⁾	Data title
422	Country of origin of a trade item: AI (422)	N3+N3	(FNC1)	ORIGIN
423	Country of initial processing: AI (423)	N3+N3+N12	(FNC1)	COUNTRY - INITIAL PROCESS.
424	Country of processing: AI (424)	N3+N3	(FNC1)	COUNTRY - PROCESS.
425	Country of disassembly: AI (425)	N3+N3+N12	(FNC1)	COUNTRY - DISASSEMBLY
426	Country covering full process chain: AI (426)	N3+N3	(FNC1)	COUNTRY - FULL PROCESS
427	Country subdivision of origin code for a trade item: AI (427)	N3+X3	(FNC1)	ORIGIN SUBDIVISION
4300	Ship-to / Deliver-to Company name: AI (4300)	N4+X35	(FNC1)	SHIP TO COMP
4301	Ship-to / Deliver-to contact name: AI (4301)	N4+X35	(FNC1)	SHIP TO NAME
4302	Ship-to / Deliver-to address line 1: AI (4302)	N4+X70	(FNC1)	SHIP TO ADD1
4303	Ship-to / Deliver-to address line 2: AI (4303)	N4+X70	(FNC1)	SHIP TO ADD2
4304	Ship-to / Deliver-to suburb: AI (4304)	N4+X70	(FNC1)	SHIP TO SUB
4305	Ship-to / Deliver-to locality: AI (4305)	N4+X70	(FNC1)	SHIP TO LOC
4306	Ship-to / Deliver-to region: AI (4306)	N4+X70	(FNC1)	SHIP TO REG
4307	Ship-to / Deliver-to country code: AI (4307)	N4+X2	(FNC1)	SHIP TO COUNTRY
4308	Ship-to / Deliver-to telephone number: AI (4308)	N4+X30	(FNC1)	SHIP TO PHONE
4310	Return-to company name: AI (4310)	N4+X35	(FNC1)	RTN TO COMP
4311	Return-to contact name: AI (4311)	N4+X35	(FNC1)	RTN TO NAME
4312	Return-to address line 1: AI (4312)	N4+X70	(FNC1)	RTN TO ADD1
4313	Return-to address line 2: AI (4313)	N4+X70	(FNC1)	RTN TO ADD2
4314	Return-to suburb: AI (4314)	N4+X70	(FNC1)	RTN TO SUB
4315	Return-to locality: AI (4315)	N4+X70	(FNC1)	RTN TO LOC
4316	Return-to region: AI (4316)	N4+X70	(FNC1)	RTN TO REG
4317	Return-to country code: AI (4317)	N4+X2	(FNC1)	RTN TO COUNTRY
4318	Return-to postal code: AI (4318)	N4+X20	(FNC1)	RTN TO POST
4319	Return-to telephone number: AI (4319)	N4+X30	(FNC1)	RTN TO PHONE
4320	Service code description: AI (4320)	N4+X35	(FNC1)	SRV DESCRIPTION
4321	Dangerous goods flag: AI (4321)	N4+N1	(FNC1)	DANGEROUS GOODS
4322	Authority to leave flag: AI (4322)	N4+N1	(FNC1)	AUTH LEAVE
4323	Signature required flag: AI (4323)	N4+N1	(FNC1)	SIG REQUIRED
4324	Not before delivery date/time: AI (4324)	N4+N10	(FNC1)	NBEF DEL DT
4325	Not after delivery date/time: AI (4325)	N4+N10	(FNC1)	NAFT DEL DT
4326	Release date: AI (4326)	N4+N6	(FNC1)	REL DATE
7001	NATO Stock Number (NSN): AI (7001)	N4+N13	(FNC1)	NSN
7002	UN/ECE meat carcasses and cuts classification: AI (7002)	N4+X30	(FNC1)	MEAT CUT
7003	Expiration date and time: AI (7003)	N4+N10	(FNC1)	EXPIRY TIME
7004	Active potency: AI (7004)	N4+N4	(FNC1)	ACTIVE POTENCY
7005	<u>Catch area: AI (7005)</u>	N4+X12	(FNC1)	CATCH AREA
7006	First freeze date: AI (7006)	N4+N6	(FNC1)	FIRST FREEZE DATE
7007	Harvest date: AI (7007)	N4+N6[+N6]12	(FNC1)	HARVEST DATE
7008	Species for fishery purposes: AI (7008)	N4+X3	(FNC1)	AQUATIC SPECIES
7009	Fishing gear type: AI (7009)	N4+X10	(FNC1)	FISHING GEAR TYPE

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GS1 General Specifications

AI	Data Content	Format ⁽¹⁾	FNC1 required ⁽⁴⁾	Data title
7010	Production method: AI (7010)	N4+X2	(FNC1)	PROD METHOD
7020	Refurbishment lot ID: AI (7020)	N4+X20	(FNC1)	REFURB LOT
7021	Functional status: AI (7021)	N4+X20	(FNC1)	FUNC STAT
7022	Revision status: AI (7022)	N4+X20	(FNC1)	REV STAT
7023	Global Individual Asset Identifier of an assembly: AI (7023)	N4+X30	(FNC1)	GIAI - ASSEMBLY
703s (86)	Number of processor with three-digit ISO country code: AI (703s)	N4+N3+X27	(FNC1)	PROCESSOR # s
7040	GS1 UIC with Extension 1 and Importer index: AI (7040)	N4+N1+X3	(FNC1)	UIC+EXT
710	<u>National Healthcare Reimbursement Number</u> (<u>NHRN) – Germany PZN: AI (710)</u>	N3+X20	(FNC1)	NHRN PZN
711	<u>National Healthcare Reimbursement Number</u> (<u>NHRN) – France CIP: AI 711)</u>	N3+X20	(FNC1)	NHRN CIP
712	<u>National Healthcare Reimbursement Number</u> (<u>NHRN) – Spain CN: AI (712)</u>	N3+X20	(FNC1)	NHRN CN
713	<u>National Healthcare Reimbursement Number</u> (<u>NHRN) – Brasil DRN: AI (713)</u>	N3+X20	(FNC1)	NHRN DRN
714	<u>National Healthcare Reimbursement Number</u> (NHRN) – Portugal AIM: AI (714)	N3+X20	(FNC1)	NHRN AIM
715	National Healthcare Reimbursement Number (NHRN) – United States of America NDC: AI (715)	N3+X20	(FNC1)	NHRN NDC
⁽⁵⁾	National Healthcare Reimbursement Number (NHRN) – Country "A" NHRN	N3+X20	(FNC1)	NHRN xxx
723s ⁽⁶⁾	Certification reference: AI (723s)	N4+X2+X28	(FNC1)	CERT # s
7240	Protocol ID: AI (7240)	N4+X20	(FNC1)	PROTOCOL
8001	Roll products - width, length, core diameter, direction, splices: AI (8001)	N4+N14	(FNC1)	DIMENSIONS
8002	Cellular mobile telephone identifier: AI (8002)	N4+X20	(FNC1)	CMT No
8003	Global Returnable Asset Identifier (GRAI): AI (8003)	N4+N14[+X16]	(FNC1)	GRAI
8004	Global Individual Asset Identifier (GIAI): AI (8004)	N4+X30	(FNC1)	GIAI
8005	Price per unit of measure: AI (8005)	N4+N6	(FNC1)	PRICE PER UNIT
8006	Identification of an individual trade item (ITIP) piece: AI (8006)	N4+N14+N2+N2	(FNC1)	ITIP
8007	International Bank Account Number (IBAN): AI (8007)	N4+X34	(FNC1)	IBAN
8008	Date and time of production: AI (8008)	N4+N8[+N4]	(FNC1)	PROD TIME
8009	Optically readable sensor indicator: AI (8009)	N4+X50	(FNC1)	OPTSEN
8010	Component/Part Identifier (CPID): AI (8010)	N4+X30	(FNC1)	CPID
8011	Component/Part Identifier serial number: AI (8011)	N4+N12	(FNC1)	CPID SERIAL
8012	Software version: AI (8012)	N4+X20	(FNC1)	VERSION
8013	Global Model Number (GMN): AI (8013)	N4+X25	(FNC1)	GMN
8017	Global Service Relation Number (GSRN) to identify the relationship between an organisation offering services and the provider of services: AI	N4+N18	(FNC1)	GSRN - PROVIDER

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AI	Data Content	Format ⁽¹⁾	FNC1 required ⁽⁴⁾	Data title
8018	<u>Global Service Relation Number (GSRN) to</u> <u>identify the relationship between an organisation</u> <u>offering services and the recipient of services: AI</u> (8018)	N4+N18	(FNC1)	GSRN - RECIPIENT
8019	Service Relation Instance Number (SRIN): AI (8019)	N4+N10	(FNC1)	SRIN
8020	Payment slip reference number: AI (8020)	N4+X25	(FNC1)	REF No
8026	Identification of pieces of a trade item (ITIP) contained in a logistic unit: AI (8026)	N4+N14+N2+N2	(FNC1)	ITIP CONTENT
8110	Coupon code identification for use in North America (AI 8110)	N4+X70	(FNC1)	-
8111	Loyalty points of a coupon: AI (8111)	N4+N4	(FNC1)	POINTS
8112	Positive offer file coupon code identification for use in North America: (AI 8112)	N4+X70	(FNC1)	-
8200	Extended packaging URL: AI (8200)	N4+X70	(FNC1)	PRODUCT URL
90	Information mutually agreed between trading partners: AI (90)	N2+X30	(FNC1)	INTERNAL
91 to 99	Company internal information: AIs (91 - 99)	N2+X90	(FNC1)	INTERNAL

NOTES:

(1): The first position indicates the length (number of digits) of the GS1 Application Identifier. The following value refers to the format of the data content. The following convention is applied:

- n implied decimal point position
- N numeric digit
- **X** any character in figure 7.11-1
- N3 3 numeric digits, predefined fixed length
- **X**3 3 characters, fixed length
- N..3 up to 3 numeric digits
- X..3 up to 3 characters in figure 7.11-1 •[]___ enclosed value is an optional component

(2): If only year and month are available, DD must be filled with two zeroes, except where noted.

(3): The fourth digit of this GS1 Application Identifier indicates the number of decimal places (and in that way the implied decimal point position).

Example:

3100 Net weight in kg without a decimal point

3102 Net weight in kg with two decimal places

(4): All GS1 element strings that begin with GS1 Application Identifiers not contained in the predefined table shown in figure 7.8.5-2 SHALL be separated by a separator character unless this element string is the last one to be encoded in the symbol. For details on the separator character see section $\underline{7.8.4}$.

(5) An example to illustrate future additional National Healthcare Reimbursement Numbers (NHRNs). If additional NHRN AIs are required, a request for a new NHRN AI SHALL be made through GSMP.

(6) The fourth digit of this GS1 Application Identifier indicates the sequence number, allowing for multiple occurrences of the AI.

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