

Fighting Illicit Trade with EPCIS Application Standard

Exchange of visibility event data to combat illicit trade

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3 Log of Changes

Release	Date of Change	Changed By	Summary of Change
1.0	May 2019	Craig Alan Repec	 Original publication based upon GSMP WR 19- 075



Release	Date of Change	Changed By	Summary of Change
1-1	7 Oct 2019	Craig Alan Repec	 WR 19-279 Miscellaneous updates to reflect stakeholder input, including: restriction of certain fields to ISO 8859-15 character set deletion of note in "assumptions" section regarding derivation of upui_2 from the UPUI EPC URI encodings in the epcList of the Object Event section explaining mandatory eventID section explaining FIT disaggregations upui2 example identifiers
			- reference to TDS replaces most of section 4

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Table of Contents

28	1	FIT in the context of visibility event data and EPCIS	8
29		1.1 Introduction	8
30		1.2 Scope of enhancements to foundational EPCIS & CBV specifications	8
31		1.2.1 FIT messages covered by EPCIS events	8
32		1.2.2 Enhancements to foundational CBV vocabulary	9
33		1.2.3 Restriction of certain fields to ISO 8859-15 character set	10
34		1.3 Assumptions regarding implicit handling of Annex II fields not included in "FIT with EPCIS"	11
35		1.3.1 "transportCont1" (Annex II messages 3.3, 3.5)	11
36		1.3.2 "saad" (Annex II message 3.5)	11
37		1.3.3 "expDeclaration" (Annex II message 3.3)	11
38		1.3.4 "emcs" (Annex II message 3.3)	11
39	2	References, Terms and Definitions	12
40		2.1 References	12
41		2.2 Terms and definitions	12
42		2.3 EPCIS overview	12
43		2.4 EPCIS event dimensions	12
44		2.4.1 WHAT	12
45		2.4.2 WHEN	13
46		2.4.3 WHERE	13
47		2.4.4 WHY	13
48		2.4.5 FIT-specific EPCIS event extensions	14
49		2.5 eventID	18
50		2.6 Disaggregation	18
51	3	Visibility events for Fighting Illicit Trade	19
52		3.1 Application of unit level UIs on unit packets	19
53		3.2 Application of aggregated level UIs on aggregated packaging	21
54		3.2.1 Application of aggregated level UIs on units to carton	21
55		3.2.2 Application of aggregated level UIs on cartons to case	23
56		3.2.3 Application of aggregated level UIs on case to logistics unit	24
57		3.3 Dispatch of tobacco products from a facility	25
58		3.4 Arrival of tobacco products at a facility	28
59		3.5 Trans-loading	29
60		3.6 Disaggregation of aggregated level UIs	32
61		3.6.1 Disaggregation of aggregated level UIs from logistics unit to case	32
62		3.6.2 Disaggregation of aggregated level UIs from case to carton	34
63		3.6.3 Disaggregation of aggregated level UIs from carton to units	35
64		3.7 Report of delivery carried out with a vending van to a retail outlet	36
65	4	Converting GS1 element string to/from UPUI EPC URI	37
66	5	Recalls of requests, operational and transactional messages	38
67			



68 1 FIT in the context of visibility event data and EPCIS

69 70 This application standard explains how to implement the GS1 EPCIS standard to combat illicit trade, particularly in the context of EU 2018/574.

71 1.1 Introduction

- This GS1 normative application standard explains how to apply EPCIS to depict product movement in the context of messages 3.1–3.7 listed in Annex II of EU 2018/574.
- This application standard leverages GS1's existing EPCIS and CBV standards, and introduces new,
 FIT-specific GS1 normative content where necessary. It will result in subsequent additions to Core/
 Comprehensive Business Vocabulary (CBV) upon the latter's next release.
- In parallel, GS1's <u>EPC Tag Data Standard</u> (TDS) has been updated (TDS v 1.12) to include the Unit
 Pack Unique Identifier (UPUI) EPC URI for pack identification purposes in EPCIS-based events.

79 **1.2** Scope of enhancements to foundational EPCIS & CBV specifications

80 1.2.1 FIT messages covered by EPCIS events

- 81The FIT application standard will provide EPCIS event specifications for each of the relevant Annex82II messages, according to the following proposal:
 - 3.1. Application of unit level UIs on unit packets will be captured as an EPCIS Object Event (business step "Commissioning")
 - 3.2. **Application of aggregated level UIs on aggregated packaging** will be captured as an EPCIS Aggregation Event (business step "Packing")
 - 3.3. **Dispatch of tobacco products from a facility** will be captured as an EPCIS Object Event (business step "Shipping")
 - 3.4. Arrival of tobacco products at a facility will be captured as an EPCIS Object Event (business step "Receiving")
 - 3.5. Trans-loading will be captured as an EPCIS Object Event (business step "Transloading")
 - 3.6. **Disaggregation of aggregated level UIs** will be captured as an EPCIS Aggregation Event (business step "Unpacking")
 - 3.7. **Report of delivery carried out with a vending van to a retail outlet** will be captured as an EPCIS Object Event (business step "Arriving")
 - 5. **Recalls of requests, operational and transactional messages** are accommodated by means of the EPCIS Error Declaration mechanism.
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102	1.2.2	Enhancements to foundational CBV vocabulary
103 104 105		In addition to EPCIS event specifications for each of the relevant Annex II messages, the aforementioned FIT application standard will include the following <u>new</u> normative EPCIS event vocabulary within the FIT namespace :
106		• "messageType" (ALL FIT messages, 3.1-3.7) (payload restricted to ISO 8859-15 character set)
107		 "eoid" (ALL FIT messages, 3.1-3.7)
108		• "fid" (ALL FIT messages, 3.1-3.7)
109		 "aggregationType" (FIT message 3.2)
110		• "uiType" (FIT messages 3.3, 3.4, 3.5, 3.7)
111		 "destinationID1" (FIT messages 3.3, 3.5)
112		 "destinationID" (FIT messages 3.3, 3.5)
113		• "destinationID5name" (FIT messages 3.3, 3.5) (ISO 8859-15 character set)
114		• "destinationID5streetAddressOne" (FIT messages 3.3, 3.5) (ISO 8859-15 character set)
115		• "destinationID5streetAddressTwo" (FIT messages 3.3, 3.5) (ISO 8859-15 character set)
116		• "destinationID5city" (FIT messages 3.3, 3.5) (ISO 8859-15 character set)
117		• "destinationID5postalCode" (FIT messages 3.3, 3.5) (ISO 8859-15 character set)
118		 "destinationID5countryCode" (FIT messages 3.3, 3.5)
119		 "transportMode" (FIT messages 3.3, 3.5)
120		• "transportVehicle" (FIT messages 3.3, 3.5) (ISO 8859-15 character set)
121		 "transportCont2" (FIT messages 3.3, 3.5)
122		 "transportS1" (FIT message 3.3)
123		• "transportS2" (FIT message 3.3) (ISO 8859-15 character set)
124		• "emcsARC" (FIT message 3.3, 3.5)
125		• "saadNumber" (FIT message 3.3) (ISO 8859-15 character set)
126		 "expDeclarationNumber" (FIT message 3.3)
127		 "productReturn" (FIT message 3.4)
128		• "upui2" (FIT message 3.1)
129		• "comment" (ALL FIT messages, 3.1-3.7) (ISO 8859-15 character set)
130		
131		(see also section 2.4.5.2, "Overview of FIT extensions")
132		



134	1.2.3	Restriction of certain fields to ISO 8859-15 character set
135 136		The payload of each field identified in Annex II as Data Type "Text" is restricted to the ISO 8859- 15 character set . In summary, this applies to the following EPCIS fields , by message:
137		
138		3.1 EUA (Commissioning)
139		<fit:messagetype></fit:messagetype>
140		<fit:comment></fit:comment>
141		
142		3.2 EPA (Packing)
143		<fit:messagetype></fit:messagetype>
144		<fit:comment></fit:comment>
145		
146		3.3 EDP (Dispatch)
14/		<fit: lype="" message=""></fit:>
148		<fit: destinationid5name=""></fit:>
149		<fit: destinationid5streetaddressone=""></fit:>
150		<fit: destinationid5streetaddressiwo=""></fit:>
151		<pre><fit:destinationid5city></fit:destinationid5city></pre>
152		<pre><fit:destinationid5postalcode>28934</fit:destinationid5postalcode></pre>
153		<tit: transport="" venicle=""></tit:>
154		<tit: transports2=""></tit:>
155		<iii: saadinumber=""></iii:>
150		<iii. comment=""></iii.>
157		2 (EDD (Deceiving)
100		s.4 ERP (Receiving)
160		
161		2.5. ETL (Transloading)
162		<pre>stit:mossageType></pre>
162		<fit: comments<="" td=""></fit:>
164		
165		3.6 FUD (Uppacking)
166		<pre><fit messagetype=""></fit></pre>
167		<fit:comment></fit:comment>
168		
169		3.7 EVR (Arriving)
170		<pre></pre>
171		<fit:comment></fit:comment>
172		
173		



1.3 Assumptions regarding implicit handling of Annex II fields not included in *"FIT with EPCIS"*

176 1.3.1 "transportCont1" (Annex II messages 3.3, 3.5)

Annex II field "transportCont1" (indication if the transport is containerised and uses an individual transport unit code) is rendered superfluous by the inclusion or omission of the "transportCont2"
field in the EPCIS event; inclusion of "transportCont2" implies a "Yes" value for "transportCont1", while omission of "transportCont2" implies a "No" value for "transportCont1".

181 1.3.2 "saad" (Annex II message 3.5)

- 182Annex II field "saad" (Dispatch with a simplified accompanying document, per Commission183Regulation EEC No 3649/92) is rendered superfluous by the inclusion or omission of the184"saadNumber" field in the EPCIS event.
- 185 Inclusion of "saadNumber" implies a "Yes" value for "saad";
- 186 **omission** of "saadNumber" implies a "**No**" value for "saad".

187 1.3.3 "expDeclaration" (Annex II message 3.3)

- Annex II field "expDeclaration" (Indication if the Movement Reference Number (MRN) has been
 issued by the customs office) is rendered superfluous by the inclusion or omission of the
 "expDeclarationNumber" field in the EPCIS event.
- 191 Inclusion of "expDeclarationNumber" implies a "Yes" value for "expDeclaration";
- 192 **omission** of "expDeclarationNumber" implies a "**No**" value for "expDeclaration".
- 193

194 **1.3.4** "emcs" (Annex II message 3.3)

- Annex II field "emcs" (Dispatch under the Excise Movement and Control System, EMCS) is rendered superfluous by the inclusion or omission of the "**emcsARC**" field in the EPCIS event.
- 197 Inclusion of "emcsARC" implies a "Yes" value for "emcs";
- 198 **omission** of "emcsARC" implies a "**No**" value for "emcs".
- 199 200



201 2 References, Terms and Definitions

202 2.1 References

Document	Author / Year
EU 2018/574 European Commission Implementing Regulation on technical standards for the establishment and operation of a traceability system for tobacco products. <u>https://ec.europa.eu/health/tobacco/tracking_tracing_system_en</u>	European Commission, 2018
GS1 EPC Tag Data Standard (TDS) v 1.12	GS1, 2019
https://www.gs1.org/sites/default/files/docs/epc/GS1_EPC_TDS_i1_12.pdf	
EPCIS v 1.2	GS1, 2016
https://www.gs1.org/sites/default/files/docs/epc/EPCIS-Standard-1.2-r-2016-09- 29.pdf	
CBV v 1.2.2	GS1, 2017
https://www.gs1.org/sites/default/files/docs/epc/CBV-Standard-1-2-2-r-2017-10- 12.pdf	
GS1 General Specifications v 19.1	GS1, 2019
https://www.gs1.org/sites/default/files/docs/barcodes/GS1_General_Specifications.pdf	
EPCIS & CBV Implementation Guideline v 1.2	GS1, 2017
https://www.gs1.org/docs/epc/EPCIS_Guideline.pdf	

203 2.2 Terms and definitions

204 2.3 EPCIS overview

205 EPCIS is an open GS1 and ISO standard that has emerged as a stable enabler for visibility of supply 206 chain events, with suitable extension mechanisms to integrate needs of fighting illicit trade. EPCIS' 207 architecture supports centralised and mixed communication modes.

208Use of this application standard assumes that the decision has already been taken by an209organisation/consortium or partners to leverage the EPCIS standard. A more general overview,210including argumentation supporting the implementation of EPCIS, can be found in the EPCIS & CBV211Implementation Guideline (referenced in section 2, above).

212 2.4 EPCIS event dimensions

213 2.4.1 WHAT

- 214The "WHAT" dimension of an EPCIS event specifies the object(s) observed at the focus of a given215business process step.
- 216 A FIT EPCIS document SHALL use the following identifiers:
 - UPUI EPC URI, equivalent to AI(01)+AI(235)
- 218 SSCC EPC URI
- SGTIN EPC URI



- 220 Details on the EPC URI syntax and encoding/decoding rules for the aforementioned identifiers are 221 specified in sections 6 and 7 (*"EPC URI"* and *"Correspondence between EPCs and GS1 Keys"*) of 222 GS1's <u>EPC Tag Data Standard</u> (TDS).
- 223

224 2.4.2 WHEN

- The "WHEN" dimension of an EPCIS event is expressed as the eventTime, specifying the precise date, time, and time zone locally in effect at the point in time of an observation and/or at which a given process step is completed.
- 228 The format is of type xsd:dateTime, for example:
- 229 <eventTime>2018-09-27T15:58:00.000+02:00</eventTime>

230 2.4.3 WHERE

The "WHERE" dimension of an EPCIS event specifies the **read point**, which identifies the location at which an observation and/or process step took place, as well as the **business location**, which identifies the whereabouts of the observed object(s) subsequent to the event in question.

234 FIT EPCIS documents SHOULD omit the business location.

A FIT EPCIS document SHOULD use GLNs expressed as SGLN EPC URIs (urn:epc:id:sgln:...) for read point identifiers, augmented coupling AI (7040) with AI (414) to express **FID** as an extension within the FIT namespace.

For TRANSLOADING, a FIT EPCIS document MAY use a geographic location URI as specified in [RFC5870], and explicitly supported in the GS1 CBV, to populate the readPoint field.

240 2.4.4 WHY

241The "WHY" dimension puts the EPCIS event into a specific business context, specifying the process242step associated with the observation of the object(s), the disposition of the object(s) subsequent to243the event, related business transactions and the source and destination of the object(s).

244 2.4.4.1 Business Step

The business step identifies what was taking place from a business perspective at the time of the event; that is, what step of a business process was occurring. Examples include "commissioning", "packing" and "shipping". The GS1 Core Business Vocabulary (CBV) standard specifies a list of cross-sector, standardised business step values, some of which are leveraged by this FIT application standard.

250 2.4.4.2 Disposition

- 251The disposition identifies the business condition subsequent to the event of the physical or digital252objects named in the WHAT dimension. Example dispositions include "active", "in_progress", and253"in_transit". The GS1 CBV includes a list of standard Disposition values, some of which are254leveraged by this FIT application standard.
- 255



256 2.4.5 FIT-specific EPCIS event extensions

257 2.4.5.1 FIT namespace and general FIT extension rules

- FIT-specific EPCIS event extensions are specified using the user/vendor extension mechanism of theEPCIS standard.
- 260 An extension data element can contain any well-formed XML content, including sub-elements and 261 attributes.
- 262 Each FIT-specific extension is assigned the following namespace identifier:

https://gs1.org/cbv/fit

264The use of this FIT-specific XML namespace not only distinguishes FIT-specific extensions from265standard EPCIS data elements, but also ensures that FIT-specific extensions will not be confused266with extensions of other sectors and organisations that may use the same element names.

The namespace SHALL be declared, along with the EPCIS standard namespace(s), in the beginning of the EPCIS header, as follows:

269 <epcis:EPCISDocument 270 xmlns:epcis="urn:epcglobal:epcis:xsd:1" 271 xmlns:fit="https://gs1.org/cbv/fit"> 272 <EPCISBody> 273 <EventList> 274 275 </EventList> 276 </EPCISBody> 277 </epcis:EPCISDocument>

278 2.4.5.2 Overview of FIT extensions

Local name	Туре	Field name & description per Annex II, EU 2018/574	Annex II messages
messageType	string	Message_Type	3.1
	(ISO 8859-15	Identification of message type	3.2
	character set)		3.3
			3.4
			3.5
			3.6
			3.7
eoid	string	EO_ID	3.1
	concatenation of	Economic operator identifier code of the submitting entity	3.2
	GS1 element strings AI (7040)		3.3
	and AI (417)		3.4
			3.5
			3.6
			3.7
fid	string	F_ID	3.1
	concatenation of	Facility identifier code	3.2
	GST element strinas AI (7040)		3.3
	and AI (414)		3.4
			3.5
			3.6
			3.7



Local name	Туре	Field name & description per Annex II, EU 2018/574	Annex II messages
aggregationType	Integer	Aggregation_Type Identification of aggregation type; 1 – aggregation of only unit packet level UIs 2 – aggregation of only aggregated level UIs 3 – aggregation of both unit packet and aggregated level UIs	3.2
uiType destinationID1	integer	UI_Type Identification of UI types in the dispatch (recorded at the highest level of available aggregation); 1 - only unit packet level UIs 2 - only aggregated level UIs 3 - both unit packet and aggregated level UIs Destination ID1	3.3 3.4 3.5 3.7
	integer	 Indication of destination type: if the destination facility is located on the EU territory and if it is delivery to a vending machine (VM) or by means of a vending van (VV) delivering to multiple retail outlets in quantities that have not been predetermined in advance of the delivery 1 - Non EU dest. 2 - EU destination other than VM - fixed quantity delivery 3 - EU VM(s) 4 - EU destination other than VM - delivery with VV 	3.5
destinationIDList	string	Destination_ID2 Destination_ID3 Destination_ID4	3.3 3.5
destinationID		<pre>Destination facility identifier code, linking, as repeatable list elements, the SGLN of a given destination facility with the concatenated GS1 element strings AI(7040) and AI (414) representing that destination's Facility Identifier code, where AI (414) corresponds to the first two segments of the read point's SGLN EPC URI, for example: <fit:destinationidlist></fit:destinationidlist></pre>	
destinationID5name	string (ISO 8859-15 character set)	Destination_ID5 Destination facility's full address: street, house number, postal code, city	3.3 3.5
destinationID5streetA ddressOne	string (ISO 8859-15 character set)		
destinationID5streetA ddressTwo	string (ISO 8859-15 character set)		



Local name	Туре	Field name & description per Annex II, EU 2018/574	Annex II messages
destinationID5city	string (ISO 8859-15 character set)		
destinationID5postalC ode	string (ISO 8859-15 character set)		
destinationID5country Code	code		
transportMode	integer	Transport_mode Mode of transport to which the product is trans-loaded, see: Commission Regulation (EC) No 684/2009, Annex 2, Code List 7; 1 – Sea Transport 2 – Rail transport 3 – Road transport 4 – Air transport 5 – Postal consignment 7 – Fixed transport installations 8 – Inland waterway transport	3.3 3.5
transportVehicle	string (ISO 8859-15 character set)	Transport_vehicle Identification of the vehicle (i.e. number plates, train number, plane/flight number, ship name or other identification)	3.3 3.5
transportCont2	string	Transport_cont2 Individual transport unit code of the container Note that Annex II field "transportCont1" (indication if the transport is containerised and uses an individual transport unit code) is rendered superfluous by the inclusion or omission of the "transportCont2" field in the EPCIS event. Inclusion of "transportCont2" implies a "Yes" value for "transportCont1	3.3 3.5
transportSl	boolean false=no true=yes	Transport_s1 Indication if the dispatch takes place with the logistic/postal operator who operates its own track and trace system accepted by the Member State of the dispatch facility. Only for small quantities of tobacco products (net weight of the products dispatched below 10kg) destined for exports to third countries; 0 – No 1 – Yes	3.3
transportS2	string (ISO 8859-15 character set)	Transport_s2 The logistic operator's tracking number	3.3
emcsARC	string	EMCS_ARC Administrative Reference Code (ARC)	3.3 3.5



Local name	Туре	Field name & description per Annex II, EU 2018/574	Annex II messages
saadNumber	string (<i>ISO 8859-15</i> <i>character set</i>)	SAAD_number Reference number of the declaration and/or authorization which has to be given by the competent authority in the Member State of destination before the movement starts Note that Annex II field "saad" (Dispatch with a simplified accompanying document, per Commission Regulation EEC No 3649/92) is rendered superfluous by the inclusion or omission of the "saadNumber" field in the EPCIS event. Inclusion of "saadNumber" implies a "Yes" value for "saad"; omission of "saadNumber" implies a "No" value for "saad".	3.3
expDelcarationNumber	string	Exp_DeclarationNumber Movement Reference Number (MRN) Note that Annex II field "expDeclaration" (Indication if the Movement Reference Number (MRN) has been issued by the customs office) is rendered superfluous by the inclusion or omission of the "expDeclarationNumber" field in the EPCIS event. Inclusion of "expDeclarationNumber" implies a "Yes" value for "expDeclaration"; omission of "expDeclarationNumber" implies a "No" value for "expDeclaration".	3.3
productReturn	boolean false=no true=yes	Product_Return Indication if the arriving products are a return following complete or partial non-delivery; 0 - No 1 - Yes	3.4
comment	string max 1000 chars (ISO 8859-15 character set)	_comment Comments by the reporting entity	3.1 3.2 3.3 3.4 3.5 3.6 3.7
upui2	string	List of corresponding unit packet level UIs to be recorded (as visible in human readable format) indicated in the same order as message 3.1's epcList (i.e., upUI_1 in Annex II).	3.1



280 2.5 eventID

For all applications of FIT-with-EPCIS, the eventID field, which is specified as optional by the EPCIS
1.2 standard, SHALL be included, populated with a UUID URI, as specified by the CBV (see *"Universally Unique Identifier (UUID) URIs for Event identifiers"*).

284 2.6 Disaggregation

In EPCIS, if an aggregation event has action="DELETE" and an empty list for the childEPCs field,
then it is interpreted as a complete disaggregation of all immediate child objects that were
aggregated to the parent up to that point. "FIT with EPCIS" disaggregations SHALL NOT indicate
disaggregated children, nor partial disaggregations; each disaggregation SHALL be considered a
complete disaggregation of all immediate children from the parent.



3 Visibility events for Fighting Illicit Trade

292

For each business process step, the corresponding visibility event is listed below.

Message 3.1, "Application of unit level UIs on unit packets", is captured in an EPCIS Object Event

293 **3.1** Application of unit level UIs on unit packets

with business step **Commissioning**, as follows.

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EPCIS	Event type	ObjectEvent
event	Action	ADD
	eventID	UUID URI, as specified by section 8.8 of <u>CBV 1.2.2</u> .
WHEN	eventTime	Date/time of event
	eventTimeZoneOffset	Time zone offset from UTC in effect at the time and place the event occurred.
WHAT	epcList	One or more packs, each identified by UPUI EPC URI.
WHERE	readPoint	<pre>GLN identifying the facility, <id> expressed as SGLN EPC URI, qualified by <fit:fid> extension to the readPoint, linking the SGLN of the readPoint to the Facility Identifier code, represented by the concatenated GS1 element strings Al(7040) and Al (414), where Al (414) corresponds to the first two segments of the readPoint's SGLN EPC URI, for example: <id>urn:epc:id:sgln:1234567.89012.0</id> </fit:fid></id> </pre>
WHY	bizStep	commissioning
	disposition	active
	messageType	3-1 (<i>ISO 8859-15 character set</i>)
suo	eoid	<pre>concatenation of GS1 element strings AI(7040) and AI (417), UIM and GLN representing Economic Operator identifier code of submitting entity, <fit:eoid <br="" epc="urn:epc:id:pgln:1234567.89012">gs1ElementString="(7040)5f(417)1234567890128"/></fit:eoid></pre>
ensi	fid	(see readPoint)
FIT ext	upui2	List of corresponding unit packet level UIs to be recorded (as visible in human readable format) indicated in the same order as message 3.1's epcList (i.e., upUI_1 in Annex II).



	example:
	<pre><!-- Human-readable on-pack encodings below, correspoinding to upUI_2(H) of<br-->Annex II> <fit:upui2 <br="" epc="urn:epc:id:upui:1234567.054321.5vY)%3C%26Jp3*j7">hriOnPack="(235)5vY)<&Jp3*j7(01)01234567543215(8008)18120308"/> <fit:upui2 <br="" epc="urn:epc:id:upui:1234567.054321.5vPxbrJK3th5">hriOnPack="(235)5vPxbrJk3th5(01)01234567543215(8008)18120308"/> <fit:upui2 <br="" epc="urn:epc:id:upui:1234567.054321.5v8*)%3Ek85Jp3*j7">hriOnPack="(235)5v8*)>k85Jp3*j7(01)01234567543215(8008)18120308"/> <fit:upui2 <br="" epc="urn:epc:id:upui:1234567.054321.5v8*ntU1;00U%3F">hriOnPack="(235)5v8*ntU1;00U?(01)01234567543215(8008)18120308"/> <fit:upui2 <br="" epc="urn:epc:id:upui:1234567.054321.5v8102bte175th">hriOnPack="(235)5v8102bte175th(01)01234567543215(8008)18120308"/> <fit:upui2 <br="" epc="urn:epc:id:upui:1234567.054321.5v8102bte175th">hriOnPack="(235)5v8102bte175th(01)01234567543215(8008)18120308"/> <fit:upui2 <br="" epc="urn:epc:id:upui:1234567.054321.5v4CDrco52241BRd">hriOnPack="(235)5v4CDrco52241BRd(01)01234567543215(8008)18120308"/> <fit:upui2 <br="" epc="urn:epc:id:upui:1234567.054321.5vaC1000FyakK">hriOnPack="(235)5vittJekPgalpH(01)01234567543215(8008)18120308"/> <fit:upui2 <br="" epc="urn:epc:id:upui:1234567.054321.5vaC1000FyakK">hriOnPack="(235)5vaC1000FyakK(01)01234567543215(8008)18120308"/> <fit:upui2 <br="" epc="urn:epc:id:upui:1234567.054321.5vgpuT4aHtd">hriOnPack="(235)5vgpuT4aHtd(01)01234567543215(8008)18120308"/> <fit:upui2 <br="" epc="urn:epc:id:upui:1234567.054321.5vgpuT4aHtd">hriOnPack="(235)5vgpuT4aHtd(01)01234567543215(8008)18120308"/> <fit:upui2 <br="" epc="urn:epc:id:upui:1234567.054321.5vgpuT4aHtd">hriOnPack="(235)5vrLbDflilwiF(01)01234567543215(8008)18120308"/> <fit:upui2 <br="" epc="urn:epc:id:upui:1234567.054321.5vgpuT4aHtd">hriOnPack="(235)5vrLbDflilwiF(01)01234567543215(8008)18120308"/></fit:upui2></fit:upui2></fit:upui2></fit:upui2></fit:upui2></fit:upui2></fit:upui2></fit:upui2></fit:upui2></fit:upui2></fit:upui2></fit:upui2></fit:upui2></pre>
comment	Optional free text comments by reporting entity, limited to 1000 characters. (ISO 8859-15 character set)
	(ISO 8859-15 character set)



300 **3.2** Application of aggregated level UIs on aggregated packaging

301Message 3.2302more EPCIS303levels – with

Message 3.2, "Application of aggregated level UIs on aggregated packaging", is captured in one or more EPCIS Aggregation Events – iterative as necessary, to allow for "nesting" of hierarchical levels – with business step Packing, as follows.

Because an EPCIS Aggregation Event can only depict the relationship between two hierarchical levels, multiple, nested levels of aggregation (e.g., child-to-parent, parent-to-grandparent, etc.) are depicted in EPCIS using as many Aggregation Events as necessary to depict aggregation each of these nested levels.

308 3.2.1 Application of aggregated level UIs on units to carton

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EPCIS	Event type	AggregationEvent
event	Action	ADD
	eventID	UUID URI, as specified by section 8.8 of <u>CBV 1.2.2</u> .
WHEN	eventTime	Date/time of event
	eventTimeZoneOffset	Time zone offset from UTC in effect at the time and place the event occurred.
WHAT	parentID	One carton, identified by SGTIN EPC URI
	childEPCs	Multiple packs (e.g., usually 10), each identified by UPUI EPC URI.
WHERE	readPoint	GLN identifying the facility,
		<id> expressed as SGLN EPC URI,</id>
		qualified by <fit:fid> extension to the readPoint,</fit:
		linking the SGLN of the readPoint to the Facility Identifier code , represented by the concatenated GS1 element strings AI(7040) and AI (414), where AI (414) corresponds to the first two segments of the readPoint's SGLN EPC URI, for example:
		<pre><readpoint> <id>urn:epc:id:sgln:1234567.89012.0</id> (7040)5f(414)1234567890128 </readpoint></pre>
WHY	bizStep	packing
	disposition	in_progress
	messageType	3-2
		(ISO 8859-15 character set)
	aggregationType	2
su		(i.e., aggregation of "both unit packet and aggregated level UIs"")
sio	eoid	concatenation of GS1 element strings AI(7040) and AI (417),
cten		UIM and GLN representing Economic Operator identifier code of submitting entity,
FIT ex		<pre><fit:eoid epc="urn:epc:id:pgln:1234567.89012" gs1elementstring="(7040)5f(417)1234567890128"></fit:eoid></pre>



fid	(see readPoint)
comment	Optional free text comments by reporting entity, limited to 1000 characters. (ISO 8859-15 character set)
comment	Optional free text comments by reporting entity, limited to 1000 characters. (<i>ISO 8859-15 character set</i>)



311 3.2.2 Application of aggregated level UIs on cartons to case

EPCIS	Event type	AggregationEvent
event	Action	ADD
	eventID	UUID URI, as specified by section 8.8 of <u>CBV 1.2.2</u> .
WHEN	eventTime	Date/time of event
	eventTimeZoneOffset	Time zone offset from UTC in effect at the time and place the event occurred.
WHAT	parentID	One case, identified by SGTIN EPC URI or SSCC EPC URI
	childEPCs	Multiple cartons, each identified by SGTIN EPC URI
WHERE	readPoint	GLN identifying the facility, <id> expressed as SGLN EPC URI, qualified by <fit:fid> extension to the readPoint, linking the SGLN of the readPoint to the Facility Identifier code, represented by the concatenated GS1 element strings AI(7040) and AI (414), where AI (414) corresponds to the first two segments of the readPoint's SGLN EPC URI, for example: <readpoint> <id>urn:epc:id:sgln:1234567.89012.0</id> <fit:fid>(7040)5f(414)1234567890128</fit:fid> </readpoint></fit:fid></id>
WHY	bizStep	packing
	disposition	in_progress
	messageType	3–2 (ISO 8859-15 character set)
	aggregationType	2 (i.e., "aggregation of only aggregated level UIs")
ions	eoid	<pre>concatenation of GS1 element strings AI(7040) and AI (417), UIM and GLN representing Economic Operator identifier code of submitting entity, <fit:eoid <br="" epc="urn:epc:id:pgln:1234567.89012">gs1ElementString="(7040)5f(417)1234567890128"/></fit:eoid></pre>
tens	fid	(see readPoint)
FIT ex	comment	Optional free text comments by reporting entity, limited to 1000 characters. (ISO 8859-15 character set)



315 3.2.3 Application of aggregated level UIs on case to logistics unit

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EPCIS	Event type	AggregationEvent
event	Action	ADD
	eventID	UUID URI, as specified by section 8.8 of <u>CBV 1.2.2</u> .
WHEN	eventTime	Date/time of event
	eventTimeZoneOffset	Time zone offset from UTC in effect at the time and place the event occurred.
WHAT	parentID	One logistics unit, identified by SSCC EPC URI
	childEPCs	Multiple cases, each identified by SGTIN EPC URI or SSCC EPC URI
WHERE	readPoint	<pre>GLN identifying the facility, <id> expressed as SGLN EPC URI, qualified by <fit:fid> extension to the readPoint, linking the SGLN of the readPoint to the Facility Identifier code, represented by the concatenated GS1 element strings AI(7040) and AI (414), where AI (414) corresponds to the first two segments of the readPoint's SGLN EPC URI, for example: <readpoint> <id>urn:epc:id:sgln:1234567.89012.0</id> </readpoint></fit:fid></id> </pre>
WHY	bizStep	packing
	disposition	in_progress
	messageType	3–2 (ISO 8859-15 character set)
	aggregationType	2 (i.e., aggregation of <i>"only aggregated level UIs"</i>)
ions	eoid	<pre>concatenation of GS1 element strings AI(7040) and AI (417), UIM and GLN representing Economic Operator identifier code of submitting entity, <fit:eoid <br="" epc="urn:epc:id:pgln:1234567.89012">gs1ElementString="(7040)5f(417)1234567890128"/></fit:eoid></pre>
tens	fid	(see readPoint)
FIT ex	comment	Optional free text comments by reporting entity, limited to 1000 characters. (ISO 8859-15 character set)



319 **3.3 Dispatch of tobacco products from a facility**

Message 3.3, "*Dispatch of tobacco products from a facility*", is captured in an EPCIS **Object Event** with business step **Shipping**, as follows.

Because the Secondary Repository envisioned by 2018/574 will contain all visibility events, it would be unnecessarily redundant (with the effect of ballooning data volumes) to reiterate all nested aggregation levels subordinate to the logistics (most senior parent) level at the point of dispatch/receiving. For this reason, an Object Event is used instead of an Aggregation Event.

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EPCIS	Event type	ObjectEvent
event	Action	OBSERVE
	eventID	UUID URI, as specified by section 8.8 of <u>CBV 1.2.2</u> .
WHEN	eventTime	Date/time of event
	eventTimeZoneOffset	Time zone offset from UTC in effect at the time and place the event occurred.
WHAT	epcList	One or more logistic units, each identified by SSCC EPC URI note: the SSCC is tentatively reiterated in transportCont2 (Individual transport unit code of the container) and/or transportS2 (logistic operator's tracking number)
WHERE	readPoint	GLN identifying the facility, <id> expressed as SGLN EPC URI, qualified by <fit:fid> extension to the readPoint, linking the SGLN of the readPoint to the Facility Identifier code, represented by the concatenated GS1 element strings AI(7040) and AI (414), where AI (414) corresponds to the first two segments of the readPoint's SGLN EPC URI, for example: <readpoint> <id>urn:epc:id:sgln:1234567.89012.0</id> </readpoint></fit:fid></id>
WHY	bizStep	shipping
	disposition	in_transit
	messageType	3–3 (<i>ISO 8859-15 character set</i>)
su	uiType	2 (i.e., "only aggregated level UIs")
FIT extensic	eoid	<pre>concatenation of GS1 element strings AI(7040) and AI (417), UIM and GLN representing Economic Operator identifier code of submitting entity, <fit:eoid <br="" epc="urn:epc:id:pgln:1234567.89012">gs1ElementString="(7040)5f(417)1234567890128"/></fit:eoid></pre>



fid	(see readPoint)
destinationID1	"Indication of destination type: if the destination facility is located on the EU territory and if it is delivery to a vending machine (VM) or by means of a vending van (VV) delivering to multiple retail outlets in quantities that have not been predetermined in advance of the delivery."
	 a – Non EU dest. a – EU destination other than VM – fixed quantity delivery a – EU VM(s) a – EU destination other than VM – delivery with VV
destinationIDList AND	FIT extension linking, as repeatable list elements, the SGLN of a given destination facility with the concatenated GS1 element strings AI(7040) and AI (414) representing that destination's Facility Identifier code, where AI (414) corresponds
destinationID	to the first two segments of the read point's SGLN EPC URI, for example:
type="2"	<fit:destinationidlist></fit:destinationidlist>
(non-vending-machine)	<pre>type="2" epc="urn:epc:id:sgln:0614141.00777.0" gs1ElementString="(7040)5v9_(414)0614141007776"/></pre>
type="3"	<fit:destinationid type="2" epc="urn:epc:id:sgln:0614141.00778.0"</fit:destinationid
(vending machine)	<pre>gs1ElementString="(7040)5v9_(414)0614141007783"/> </pre>
type="4"	The repeatable list allows for indication of multiple destinations, without the need to correlate the despatched serialised units 1-to-1 with each respective destination in
(vending van ?)	cases where each unit's point of delivery can only be established at time of delivery rather than in advance (i.e., at time of dispatch).
destinationID5name	name of destination facility (ISO 8859-15 character set)
destinationID5streetAddr essOne	address of destination facility (ISO 8859-15 character set)
destinationID5streetAddr essTwo	address of destination facility (ISO 8859-15 character set)
destinationID5city	city of destination facility (ISO 8859-15 character set)
destinationID5postalCod e	postal code of destination facility (ISO 8859-15 character set)
destinationID5countryCo de	country code of destination facility
transportMode	Mode of transport by which the product leaves the facility, see: Commission Regulation (EC) No 684/2009, Annex 2, Code List 7
	0 – Other 1 – Sea Transport 2 – Rail transport 3 – Road transport
	4 – Air transport 5 – Postal consignment
	 / – Fixed transport installations 8 – Inland waterway transport



transportVehicle	<i>Free text</i> identification of the vehicle (i.e. number plates, train number, plane/flight number, ship name or other identification). (ISO 8859-15 character set)
transportCont2	Individual transport unit code of the container. Note that Annex II field "transportCont1" (indication if the transport is containerised and uses an individual transport unit code) is rendered superfluous by the inclusion or omission of the "transportCont2" field in the EPCIS event. Inclusion of "transportCont2" implies a "Yes" value for "transportCont1"; omission of "transportCont2" implies a "No" value for "transportCont1".
transportS1	Indication if the dispatch takes place with the logistic/postal operator who operates its own track and trace system accepted by the Member State of the dispatch facility. Only for small quantities of tobacco products (net weight of the products dispatched below 10kg) destined for exports to third countries. false = No true = Yes
transportS2	The logistic operator's tracking number. (ISO 8859-15 character set)
emcsARC	Administrative Reference Code (ARC) Note that Annex II field "emcs" (Dispatch under the Excise Movement and Control System, EMCS) is rendered superfluous by the inclusion or omission of the "emcsARC" field in the EPCIS event. Inclusion of "emcsARC" implies a "Yes" value for "emcs"; omission of "emcsARC" implies a "No" value for "emcs".
saadNumber	Reference number of the declaration and/or authorization which has to be given by the competent authority in the Member State of destination before the movement starts. (ISO 8859-15 character set) Note that Annex II field "saad" (Dispatch with a simplified accompanying document, per Commission Regulation EEC No 3649/92) is rendered superfluous by the inclusion or omission of the "transportCont2" field in the EPCIS event. Inclusion of "saadNumber" implies a "Yes" value for "saad": omission of "saadNumber" implies a "No" value for "saad".
expDeclarationNumber	Movement Reference Number (MRN) Note that Annex II field "expDeclaration" (Indication if the Movement Reference Number (MRN) has been issued by the customs office) is rendered superfluous by the inclusion or omission of the "expDeclarationNumber" field in the EPCIS event. Inclusion of "expDeclarationNumber" implies a "Yes" value for "expDeclaration"; omission of "expDeclarationNumber" implies a "No" value for "expDeclaration".
comment	Optional free text comments by reporting entity, limited to 1000 characters. (<i>ISO 8859-15 character set</i>)



330 **3.4** Arrival of tobacco products at a facility

331 332 Message 3.4, "Arrival of tobacco products from a facility", is captured in an EPCIS **Object Event** with business step **Receiving**, as follows.

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EPCIS event	Event type	ObjectEvent		
	Action	OBSERVE		
	eventID	UUID URI, as specified by section 8.8 of <u>CBV 1.2.2</u> .		
WHEN	eventTime	Date/time of event		
	eventTimeZoneOffset	Time zone offset from UTC in effect at the time and place the event occurred.		
WHAT	epcList	One logistics unit, identified by SSCC EPC URI		
WHERE	readPoint	GLN identifying the facility, <id> expressed as SGLN EPC URI, qualified by <fit:fid> extension to the readPoint, linking the SGLN of the readPoint to the Facility Identifier code, represented by the concatenated GS1 element strings AI(7040) and AI (414), where AI (414) corresponds to the first two segments of the readPoint's SGLN EPC URI, for example:</fit:</id>		
		<pre><readpoint></readpoint></pre>		
WHY bizStep receiving		receiving		
	disposition	in_progress		
	messageType	3–4 (ISO 8859-15 character set)		
	uiType	2 (i.e., "only aggregated level UIs")		
	eoid	concatenation of GS1 element strings AI(7040) and AI (417), UIM and GLN representing Economic Operator identifier code of submitting entity, <fit:eoid <="" epc="urn:epc:id:pgln:1234567.89012" td=""></fit:eoid>		
S	fid	(see readPoint)		
<i>ktension</i>	productReturn	Indication if the arriving products are a return following complete or partial non- delivery false = No true = Yes		
FIT e	comment	Optional free text comments by reporting entity, limited to 1000 characters. (<i>ISO 8859-15 character set</i>)		



335 3.5 Trans-loading

Message 3.5, "*Transloading*", is captured as a lone EPCIS **Object Event (action OBSERVE)** with new business step **transloading**, as follows; in the transloading process, the vehicles involved in unloading and (re-)loading always have a 1:1 relationship (i.e., one truck transloads into exactly one other truck), rather than 1:n (i.e., one truck unloads into multiple trucks).

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EPCIS	Event type	ObjectEvent	
event	Action	OBSERVE	
	eventID	UUID URI, as specified by section 8.8 of <u>CBV 1.2.2</u> .	
WHEN	eventTime	Date/time of event	
	eventTimeZoneOffset	Time zone offset from UTC in effect at the time and place the event occurred.	
WHAT	epcList	One or more logistic units, each identified by SSCC EPC URI note: the SSCC is tentatively reiterated in transportCont2 (Individual transport unit code of the container) and/or transportS2 (logistic operator's tracking number)	
WHERE	readPoint	geoURI identifying the geo-coordinates of unloading	
WHY	bizStep	transloading	
	disposition	in_progress	
	messageType	3-5	
		(ISO 8859-15 character set)	
	uiType	2	
		(i.e., "only aggregated level UIs")	
nsions		"UI_Type" for ETL messages is <u>usually</u> 2 ("only aggregated level UIs"), but – per discussion with Dentsu on 10 July – may feature upUIs, in the unusual case where indivdual packs are dispatched.	
		Note that the example JSON message from Dentsu was expecting a list of upUIs, whereas GS1 EPCIS + FIT is expecting to report only the receiving of an aUI (e.g. for a carton or case).	
		If a list of upUIs is expected, then it's necessary for the translator to store state information and determine from previous aggregation events which upUIs are contained within those aUIs; Dentsu has been keen to avoid the complexity of the translator having to maintain state information from prior events and were hoping to have a 1:1 mapping between EPCIS events and their expected messages.	
exte	eoid	concatenation of GS1 element strings AI(7040) and AI (417),	
FIT		UIM and GLN representing Economic Operator identifier code of submitting entity,	



	<pre><fit:eoid epc="urn:epc:id:pgln:1234567.89012" gs1elementstring="(7040)5v9_(417)1234567890128"></fit:eoid></pre>
destinationID1	"Indication of destination type: if the destination facility is located on the EU territory and if it is delivery to a vending machine (VM) or by means of a vending van (VV) delivering to multiple retail outlets in quantities that have not been predetermined in advance of the delivery."
	 1 - Non EU dest. 2 - EU destination other than VM - fixed quantity delivery 3 - EU VM(s) 4 - EU destination other than VM - delivery with VM - delivery
destinationID	4 - EU destination other than VM - delivery with VV
destinationID	facility with the concatenated GS1 element strings Al(7040) and Al (414) representing that destination's Facility Identifier code, where Al (414) corresponds
type="2"	to the first two segments of the read point's SGLN EPC URI, for example:
(non-vending-machine)	<fit:destinationidlist></fit:destinationidlist>
type="3"	<pre><tit:destinationid <="" apg="upp:opg:id:gglp:0614141_00777_0" pre="" type="2"></tit:destinationid></pre>
(vending machine)	<pre>sillementString="(7040)5v9_(414)0614141007776"/> <fit:destinationid< pre=""></fit:destinationid<></pre>
	<pre>type="2" epc="urn:epc:id:sgln:0614141.00778.0"</pre>
type="4"	<pre>gs1ElementString="(7040)5v9_(414)0614141007783"/> </pre>
(vending van ?)	
	The repeatable list allows for indication of multiple destinations, without the need to correlate the despatched serialised units 1-to-1 with each respective destination, in cases where each unit's point of delivery can only be established at time of delivery rather than in advance (i.e., at time of dispatch).
destinationIDEnamo	name of destination facility
destinationDoname	(ISO 8859-15 character set)
destination D5street Addr	address of destination facility
essOne	(ISO 8859-15 character set)
destinationID5streetAddr	address of destination facility
essTwo	(ISO 8859-15 character set)
destinationID5city	city of destination facility
destinationDocity	(ISO 8859-15 character set)
destinationID5postalCod	postal code of destination facility
e	(ISO 8859-15 character set)
destinationID5countryCo de	country code of destination facility
transportMode	"Mode of transport by which the product leaves the facility, see: Commission Regulation (EC) No 684/2009, Annex 2, Code List 7"
	0 – Other
	1 – Sea Transport
	2 – Rail transport
	4 – Air transport
	5 – Postal consignment
	7 – Fixed transport installations



	8 – Inland waterway transport		
	transportVehicle	Free text identification of the vehicle (i.e. number plates, train number,	
· ·		plane/flight number, ship name or other identification).	
		(ISO 8859-15 character set)	
		to dividual teacher where it as de a C the constations	
	transportCont2		
		The second s	
		Note that Annex II field "transportCont1" (indication if the transport is	
		containerised and uses an individual transport unit code) is rendered superfluous	
		by the inclusion of omission of the "transportCont2" field in the EPCIS event.	
	Inclusion of "transportCont2" implies a " Yes " value for "transportCont2" implies a " No " value for "transportCo		
	emcsARC	Administrative Reference Code (ARC)	
		Note that Appay II field "ames" (Dispatch upday the Everse Movement and	
		Control System, EMCS) is rendered superfluous by the inclusion or omission of the "emcsARC" field in the EPCIS event.	
		Inclusion of "emcsARC" implies a "Yes" value for "emcs";	
		omission of "emcsARC" implies a "No" value for "emcs".	
Comment Optional f		Optional free text comments by reporting entity, limited to 1000 characters.	
		(ISO 8859-15 character set)	

342



344 3.6 Disaggregation of aggregated level UIs

Message 3.6, "*Disaggregation of aggregated level UIs*", is captured in an EPCIS **Aggregation Event** (action DELETE) with business step Unpacking, as follows.

In EPCIS, if an aggregation event has action="DELETE" and an empty list for the childEPCs field, then it is interpreted as a complete disaggregation of all immediate child objects that were aggregated to the parent up to that point. "FIT with EPCIS" disaggregations SHALL NOT indicate disaggregated children, nor partial disaggregations; each disaggregation SHALL be considered a complete disaggregation of all immediate children from the parent.

Because an EPCIS Aggregation Event can only depict the relationship between two hierarchical levels, multiple, nested levels of aggregation (e.g., child-to-parent, parent-to-grandparent, etc.) are depicted in EPCIS using as many Aggregation Events as necessary to depict disaggregation each of these nested levels.

358 3.6.1 Disaggregation of aggregated level UIs from logistics unit to case

EPCIS	Event type	AggregationEvent	
event	Action	DELETE	
	eventID	UUID URI, as specified by section 8.8 of <u>CBV 1.2.2</u> .	
WHEN	eventTime	Date/time of event	
	eventTimeZoneOffset	Time zone offset from UTC in effect at the time and place the event occurred.	
WHAT	parentID	One logistics unit, identified by SSCC EPC URI	
	childEPCs	List of child EPCs SHALL be omitted, implying a full disaggregation.	
WHERE	readPoint	GLN identifying the facility, <id> expressed as SGLN EPC URI, qualified by <fit:fid> extension to the readPoint, linking the SGLN of the readPoint to the Facility Identifier code, represented by the concatenated GS1 element strings AI(7040) and AI (414), where AI (414) corresponds to the first two segments of the readPoint's SGLN EPC URI, for example: <id>urn:epc:id:sgln:1234567.89012.0</id> </fit:fid></id>	
WHY	bizStep	unpacking	
	disposition	in_progress	
FIT exte	messageType	3–6 (<i>ISO 8859-15 character set</i>)	



eoid	concatenation of GS1 element strings AI(7040) and AI (417), UIM and GLN representing Economic Operator identifier code of submitting entity	
	<fit:eoid <br="" epc="urn:epc:id:pgln:1234567.89012">gs1ElementString="(7040)5v9_(417)1234567890128"/></fit:eoid>	
fid	(see readPoint)	
comment	Optional free text comments by reporting entity, limited to 1000 characters. (<i>ISO 8859-15 character set</i>)	
	eoid fid comment	



361 **3.6.2** Disaggregation of aggregated level UIs from case to carton

362

EPCIS	Event type	AggregationEvent	
event	Action	DELETE	
	eventID	UUID URI, as specified by section 8.8 of <u>CBV 1.2.2</u> .	
WHEN	eventTime	Date/time of event	
	eventTimeZoneOffset	Time zone offset from UTC in effect at the time and place the event occurred.	
WHAT	parentID	One carton, identified by SGTIN EPC URI or SSCC EPC URI	
	childEPCs	List of child EPCs SHALL be omitted, implying a full disaggregation.	
WHERE	readPoint	<pre>GLN identifying the facility, <id> expressed as SGLN EPC URI, qualified by <fit:fid> extension to the readPoint, linking the SGLN of the readPoint to the Facility Identifier code, represented by the concatenated GS1 element strings Al(7040) and Al (414), where Al (414) corresponds to the first two segments of the readPoint's SGLN EPC URI, for example: <id>urn:epc:id:sgln:1234567.89012.0</id> </fit:fid></id></pre>	
WHY	bizStep	unpacking	
	disposition	in_progress	
	messageType	3-6	
		(ISO 8859-15 character set)	
	eoid	concatenation of GS1 element strings AI(7040) and AI (417),	
sions		<pre><fit:eoid epc="urn:epc:id:pgln:1234567.89012" gs1elementstring="(7040)5v9_(417)1234567890128"></fit:eoid></pre>	
xten	fid	(see readPoint)	
FIT e.	comment	Optional free text comments by reporting entity, limited to 1000 characters. (ISO 8859-15 character set)	



365 **3.6.3 Disaggregation of aggregated level UIs from carton to units**

366

EPCIS	Event type	AggregationEvent	
event	Action	DELETE	
	eventID	UUID URI, as specified by section 8.8 of <u>CBV 1.2.2</u> .	
WHEN	eventTime	Date/time of event	
	eventTimeZoneOffset	Time zone offset from UTC in effect at the time and place the event occurred.	
WHAT	parentID	One carton, identified by SGTIN EPC URI	
	childEPCs	List of child EPCs SHALL be omitted, implying a full disaggregation.	
WHERE	readPoint	<pre>GLN identifying the facility, <id> expressed as SGLN EPC URI, qualified by <fit:fid> extension to the readPoint, linking the SGLN of the readPoint to the Facility Identifier code, represented by the concatenated GS1 element strings AI(7040) and AI (414), where AI (414) corresponds to the first two segments of the readPoint's SGLN EPC URI, for example: <readpoint> <id>urn:epc:id:sgln:1234567.89012.0</id> <fit:fid>(7040)5v9_(414)1234567890128</fit:fid> </readpoint></fit:fid></id></pre>	
WHY	bizStep	unpacking	
	disposition	in_progress	
	messageType	3-6	
		(ISO 8859-15 character set)	
	eoid	concatenation of GS1 element strings AI(7040) and AI (417),	
sions		<pre><fit:eoid epc="urn:epc:id:pgln:1234567.89012" gs1elementstring="(7040)5v9_(417)1234567890128"></fit:eoid></pre>	
xten	fid	(see readPoint)	
FIT e.	comment	Optional free text comments by reporting entity, limited to 1000 characters. (ISO 8859-15 character set)	



Report of delivery carried out with a vending van to a retail outlet 3.7 370

Message 3.7, "*Report of delivery carried out with a vending van to a retail outlet*", is captured in an EPCIS **Object Event (action OBSERVE)** with business step **Arriving**, as follows.

371

- 372
- 373

EPCIS	Event type	ObjectEvent	
event	Action	OBSERVE	
	eventID	UUID URI, as specified by section 8.8 of <u>CBV 1.2.2</u> .	
WHEN	eventTime	Date/time of event	
	eventTimeZoneOffset	Time zone offset from UTC in effect at the time and place the event occurred.	
WHAT	epcList	One or more logistic units, each identified by SSCC EPC URI	
WHERE	readPoint	GLN identifying the facility, <id> expressed as SGLN EPC URI, qualified by <fit:fid> extension to the readPoint, linking the SGLN of the readPoint to the Facility Identifier code, represented by the concatenated GS1 element strings AI(7040) and AI (414), where AI (414) corresponds to the first two segments of the readPoint's SGLN EPC URI, for</fit:</id>	
		<pre><readpoint> <id>urn:epc:id:sgln:1234567.89012.0</id> <!--/d--> (fit:fid>(7040)5v9_(414)1234567890128<!--/it:fid--> <!--/readPoint--> </readpoint></pre>	
WHY	bizStep	arriving	
	disposition	in_progress	
	messageType	3–7 (ISO 8859-15 character set)	
	uiType	2 (i.e., "only aggregated level UIs")	
sions	eoid	<pre>concatenation of GS1 element strings AI(7040) and AI (417), UIM and GLN representing Economic Operator identifier code of submitting entity, <fit:eoid <br="" epc="urn:epc:id:pgln:1234567.89012">gs1ElementString="(7040)5y9 (417)1234567890128"/></fit:eoid></pre>	
xter	fid	(see readPoint)	
FIT e	comment	Optional free text comments by reporting entity, limited to 1000 characters. (<i>ISO 8859-15 character set</i>)	



4 Converting GS1 element string to/from UPUI EPC URI

376The UPUI EPC corresponds to a combination of a GTIN – AI (01) – in conjunction with a Third Party377Controlled, Serialised Extension of GTIN (TPX) – AI (235).

378 Please see section 7.12 of <u>TDS 1.12</u> for details.

379



Recalls of requests, operational and transactional 5 381 382

messages

Recalls of events used for Messages 3.1-3.7 will be satisfied by leveraging the EPCIS Error 383 Declaration mechanism. 384

385 Sometimes, EPCIS Events are captured in error. Because EPCIS is a journaling mechanism, the erroneous EPCIS events SHALL NOT be deleted from the repository or database where they are 386 387 stored. Instead, the method of remediation is to issue an EPCIS error declaration event. This 388 looks just like the original, erroneous event, but with the addition of an error declaration section.

389 Both events together could look like the example below, which illustrates an ObjectEvent captured 390 in error for a shipment which never occurred; the erroneous Object Event is followed by an EPCIS 391 error declaration event.

EPCIS event	Event type	ObjectEvent	ObjectEvent
	Action	OBSERVE	OBSERVE
	eventID	UUID URI, as specified by section 8.8 of <u>CBV 1.2.2</u> .	UUID URI, as specified by section 8.8 of <u>CBV 1.2.2</u> .
error Declarati	declarationTime		Date/time of Error Declaration
ion	reason		did_not_occur
WHEN	eventTime	Date/time of event	Date/time of event
	eventTimeZone Offset	Time zone offset from UTC in effect at the time and place the event occurred.	Time zone offset from UTC in effect at the time and place the event occurred.
WHAT	epcList	One or more logistic units, each identified by SSCC EPC URI	One or more logistic units, each identified by SSCC EPC URI
WHERE	readPoint	GLN identifying the facility,	GLN identifying the facility,
		<id> expressed as SGLN EPC URI,</id>	<id> expressed as SGLN EPC URI,</id>
		qualified by <fit:fid> extension to the readPoint,</fit:	qualified by <fit:fid> extension to the readPoint,</fit:
		linking the SGLN of the readPoint to the Facility Identifier code , represented by the concatenated GS1 element strings AI(7040) and AI (414), where AI (414) corresponds to the first two segments of the readPoint's SGLN EPC URI, for example:	linking the SGLN of the readPoint to the Facility Identifier code , represented by the concatenated GS1 element strings AI(7040) and AI (414), where AI (414) corresponds to the first two segments of the readPoint's SGLN EPC URI, for example:
		<readpoint></readpoint>	<readpoint></readpoint>
		<id>urn:epc:id:sgln:1234567. 89012.0</id>	<id>urn:epc:id:sgln:1234567. 89012.0</id>
		<fit:fid>(7040)5v9_(414)1234 567890128</fit:fid> 	<fit:fid>(7040)5v9_(414)1234 567890128</fit:fid>



WHY	bizStep	shipping	shipping
	disposition	in_transit	in_transit
	messageType	3-3	3-3
		(ISO 8859-15 character set)	(ISO 8859-15 character set)
	uiType	2	2
		(i.e., "only aggregated level UIs")	(i.e., "only aggregated level UIs")
	eoid	concatenation of GS1 element strings Al(7040) and Al (417),	concatenation of GS1 element strings AI(7040) and AI (417),
		UIM and GLN representing Economic Operator identifier code of submitting entity,	UIM and GLN representing Economic Operator identifier code of submitting entity,
		<fit:eoid epc="urn:epc:id:pgln:1234567 .89012" gs1ElementString="(7040)5f(4 17)1234567890128"/></fit:eoid 	<pre><fit:eoid epc="urn:epc:id:pgln:1234567 .89012" gs1elementstring="(7040)5f(4 17)1234567890128"></fit:eoid></pre>
	fid	(see readPoint)	(see readPoint)
extensions	destinationID1	"Indication of destination type: if the destination facility is located on the EU territory and if it is delivery to a vending machine (VM) or by means of a vending van (VV) delivering to multiple retail outlets in quantities that have not been predetermined in advance of the delivery."	"Indication of destination type: if the destination facility is located on the EU territory and if it is delivery to a vending machine (VM) or by means of a vending van (VV) delivering to multiple retail outlets in quantities that have not been predetermined in advance of the delivery."
		 1 – Non EU dest. 2 – EU destination other than VM – fixed quantity delivery 3 – EU VM(s) 4 – EU destination other than VM – delivery with VV 	 1 – Non EU dest. 2 – EU destination other than VM – fixed quantity delivery 3 – EU VM(s) 4 – EU destination other than VM – delivery with VV
	destinationID	FIT extension linking, as repeatable list elements, the SGLN of a given destination facility with the	FIT extension linking, as repeatable list elements, the SGLN of a given destination facility with the
	type="2" (non-vending- machine)	concatenated GS1 element strings AI(7040) and AI (414) representing that destination's Facility Identifier code, where AI (414) corresponds to the first two segments of the read	concatenated GS1 element strings AI(7040) and AI (414) representing that destination's Facility Identifier code, where AI (414) corresponds to the first two segments of the read
	type="3"	POINTS SOLIN EPG UKI, for example:	POINTS SOLIN EPG UKI, for example:
	(vending machine)	<pre><fit:destinationidlist> <fit:destinationid< pre=""></fit:destinationid<></fit:destinationidlist></pre>	<pre><fit:destinationidlist> <fit:destinationid< pre=""></fit:destinationid<></fit:destinationidlist></pre>
		type="2" enc="urn:enc:id:sgln:	type="2" enc="urn:enc:id:sgln:
	type="4"	0614141.00777.0"	0614141.00777.0"
	(vending van ?)	<mark>gs1ElementString="</mark> (70 40)5v9_(414)061414100	<mark>gs1ElementString="</mark> (70 40)5v9_(414)061414100
EI		7776"/> <fit:destinationid< th=""><th>7776"/> <fit:destinationid< th=""></fit:destinationid<></th></fit:destinationid<>	7776"/> <fit:destinationid< th=""></fit:destinationid<>



	type="2"	type="2"
	0614141.00778.0"	0614141.00778.0"
	gs1ElementString="(70	gs1ElementString="(70
	40)579_(414)061414100	40)509_(414)061414100 7783"/>
destinationID5n	name of destination facility	name of destination facility
ame	(ISO 8859-15 character set)	(ISO 8859-15 character set)
destinationID5st	address of destination facility	address of destination facility
reetAddressOne	(ISO 8859-15 character set)	(ISO 8859-15 character set)
destinationID5st	address of destination facility	address of destination facility
reetAddressTwo	(ISO 8859-15 character set)	(ISO 8859-15 character set)
destinationID5ci	city of destination facility	city of destination facility
ty	(ISO 8859-15 character set)	(ISO 8859-15 character set)
destinationID5n	postal code of destination facility	postal code of destination facility
ostalCode	(ISO 8859-15 character set)	(ISO 8859-15 character set)
destinationID5c ountryCode	country code of destination facility	country code of destination facility
transportMode	Mode of transport by which the	Mode of transport by which the
transportivioue	product leaves the facility, see: Commission Regulation (FC) No	product leaves the facility, see: Commission Regulation (FC) No
	684/2009, Annex 2, Code List 7	684/2009, Annex 2, Code List 7
	0 – Other	0 – Other
	1 – Sea Transport	1 – Sea Transport
	2 – Rail transport 3 – Road transport	2 – Rail transport 3 – Road transport
	4 – Air transport	4 – Air transport
	5 – Postal consignment	5 – Postal consignment
	7 – Fixed transport installations	7 – Fixed transport installations
	Free text identification of the	Free text identification of the
transportvehicle	vehicle (i.e. number plates, train	vehicle (i.e. number plates, train
	number, plane/flight number,	number, plane/flight number,
	(ISO 8859-15 character set)	(ISO 8859-15 character set)
transportCont2	Individual transport unit code of the container	Individual transport unit code of the container
transportS1	Indication if the dispatch takes place	Indication if the dispatch takes place
	operates its own track and trace	operates its own track and trace
	system accepted by the Member	system accepted by the Member $false = No$
	true = Yes State of the dispatch	true = Yes State of the dispatch
	facility. Only for small quantities of tobacco products (net weight of the	facility. Only for small quantities of tobacco products (net weight of the
	products dispatched below 10kg)	products dispatched below 10kg)
	destined for exports to third countries.	destined for exports to third countries.
transportS2	The logistic operator's tracking	The logistic operator's tracking
	number (ISO 8859-15 character set)	number (ISO 8859-15 character set)



emcsARC	Administrative Reference Code (ARC)	Administrative Reference Code (ARC)
saadNumber	Reference number of the declaration and/or authorization which has to be given by the competent authority in the Member State of destination before the movement starts. (<i>ISO 8859-15 character set</i>)	Reference number of the declaration and/or authorization which has to be given by the competent authority in the Member State of destination before the movement starts. (<i>ISO 8859-15 character set</i>)
	Note that Annex II field "saad" (Dispatch with a simplified accompanying document, per Commission Regulation EEC No 3649/92) is rendered superfluous by the inclusion or omission of the "saadNumber" field in the EPCIS event. Inclusion of "saadNumber" implies a "Yes" value for "saad"; omission of "saadNumber" implies a "No" value for "saad".	Note that Annex II field "saad" (Dispatch with a simplified accompanying document, per Commission Regulation EEC No 3649/92) is rendered superfluous by the inclusion or omission of the "saadNumber" field in the EPCIS event. Inclusion of "saadNumber" implies a "Yes" value for "saad"; omission of "saadNumber" implies a "No" value for "saad".
expDeclaration Number	Movement Reference Number (MRN) Note that Annex II field "expDeclaration" (Indication if the Movement Reference Number (MRN) has been issued by the customs office) is rendered superfluous by the inclusion or omission of the "expDeclarationNumber" field in the EPCIS event. Inclusion of "expDeclarationNumber" implies a "Yes" value for "expDeclaration"; omission of "expDeclarationNumber" implies a "No" value for "expDeclaration".	Movement Reference Number (MRN) Note that Annex II field "expDeclaration" (Indication if the Movement Reference Number (MRN) has been issued by the customs office) is rendered superfluous by the inclusion or omission of the "expDeclarationNumber" field in the EPCIS event. Inclusion of "expDeclarationNumber" implies a "Yes" value for "expDeclaration"; omission of "expDeclarationNumber" implies a "No" value for "expDeclaration".
comment	Optional free text comments by reporting entity, limited to 1000 characters. (<i>ISO 8859-15 character set</i>)	Optional free text comments by reporting entity, limited to 1000 characters. (<i>ISO 8859-15 character set</i>)