

Train Data Reporting Interface RU- Documentation R2.1

PORTHOS

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1 Introduction

The train preparation is a responsible and safety-relevant part of the railway system. An essential part of train preparation is the reporting of train data, which is of great importance for the safe handling of train journeys, especially for the transport of dangerous goods and unusual consignments.

ÖBB-Infrastruktur AG / GB Betrieb provides the INFRA train data report as a digital solution for reporting train data to all RUs. The reporting of train data can be performed via the customer portal. Furthermore, an interface is provided to ensure effective digital integration into customer systems. See also ÖBB-Infrastruktur AG's Network Statement 2024 → [SNNB 2024 \(SNNB 2024 \(oebb.at\)\)](#)

2 Technical interface description

2.1 Endpoints

Endpoint URL: https://developer.oebb.at/gateway/porthos_zugdateneinmeldung_api/1.1

2.2 Transport format

Latest version: 1.1.0

Interface technology: https REST Service with XML Payload

Following interface descriptions will be provided separately:

- Swagger: PorthosZugdateneinmeldungExternalAPI_1.1_swagger.json
- OpenAPI: PorthosZugdateneinmeldungAPI_openapi (5).json
- RAML: PorthosZugdateneinmeldungExternalAPI_1.1.raml

2.3 Train data-XML payload-format

Request-Payload-Format for /public/traindata/

Latest version: ZDE-Infra_1.0.1

Data format: XML

The XML-scheme will provided separately.


XML-Scheme: https://confluence.oebb.at/download/attachments/210129090/ZDE-Infra_1.0.1.xsd?api=v2


 The scheme is based on HERMES30 2.0 with minor additions.

Content-related description of the format could be found in section 4 - [data validation](#).

2.4 Interface-security

2.4.1 technical consignor vs. operational consignor

Consignor-EVU	 Description	Origin from
technical consignor	<p>RU which technical transmit the train data.</p> <p>The technical consignor is an RU that has the technical infrastructure to transmit train data reports electronically via the INFRA-interface on its own behalf or on behalf of another RU.</p> <p>This RU is not necessarily operationally related to the train.</p>	Derivation from the identified interface user

Consignor-EVU	 Description	Origin from
operational consignor	RU which is operationally responsible for the transmission of a train data report at a handover point. The operational consignor may differ from the technical consignor.	Field "H1" of the train data-XML

2.5 Authentication

See documentation: Authentication via Client ID – instructions for developers

2.6 Authorisation

Interface function "train data report"

Following fields are validated against the RU who ordered the the train-route:

- delivering RU (train data-XML field "T2_2")
- receiving RU (train data-XML field "T2_3")

Either der delivering RU or the receiving RU has to align with the RU who ordered the train-route, otherwise an error is going to be returned via the interface.

Interface function "processing state query"

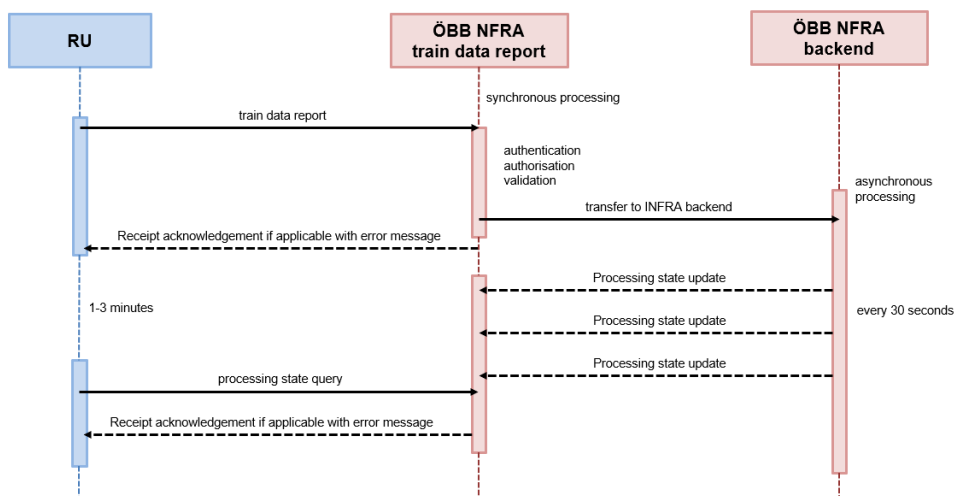
The system checks whether the technical transmitter of the query was also the technical transmitter of the original train data report. If this is not the case, the system sends an error 401.

3 Interface processes

3.1 Interface function overview

The interface supports the following functions:

- Train data report
- Processing state query
- XML-scheme query
- Example message query



3.2 Synchronous processing

Process:

1. RU sends a train data report message to the ÖBB INFRA Train Data Report
2. ÖBB INFRA Train Data Report performs an authentication and authorization check.
3. ÖBB INFRA Train Data Report validates the message technically and professionally
4. ÖBB INFRA Train Data Report sends the reported train data to the ÖBB INFRA Backend for asynchronous processing (see below)
5. ÖBB INFRA Train Data Report sends a acknowledgement (possible with error message) as synchronous response to the RU

! The acknowledgement only confirms that ÖBB INFRA has received and validated the train data report message. The result of the internal processing must be queried via further interface calls, see below.

3.3 Asynchronous processing

The internal processing of the train data report by the ÖBB INFRA backend is asynchronous.

The ÖBB INFRA Backend updates the processing status every 30 seconds.

The RU can request the current processing state via the interface function "processing state query".

The final result of the asynchronous processing will be available after 1-3 minutes after transmission of the acknowledgment.

3.4 Interfaces functions in detail

3.4.1 Interface function "train data report"

Path: /public/traindata/

Request:

- train data - XML (http POST Payload)

Response:

```
<?xml version="1.0" encoding="UTF-8"?>
<TrainDataInformationResponse>
  <requestId>123e4567-e89b-12d3-a456-426614174000</requestId>
  <statecode>1</statecode>
  <state>Processing</state>
  <errors>
    <errors>
      <type>ERROR</type>
      <errorcode>12345</errorcode>
      <message>Unknown station 81-1744.</message>
    </errors>
  </errors>
</TrainDataInformationResponse>
```

Attribut	Beschreibung
requestId	Unique identification for the transmitted train data report. The requestId hat to be applied later for the asynchronous processing state query
statecode, state	possible processing states <ul style="list-style-type: none"> • in Arbeit (in progress) • Verarbeitet (processed) • Nicht mehr verarbeitbar (no longer processible) • Verarbeitungsfehler (processing error) Details in regard to the status values can be found below.
errors	An optional list of errors (type=ERROR) and warnings (type=WARNING).

Attribut	Beschreibung
	possible error codes → see below.

3.4.2 Interface function "processing state query"

Path: /public/traindata/requeststate/{requestId}

Request:

- requestId (http GET-Parameter), as returned by the interface function "train data report"

Response:

- see function "train data report"

3.4.3 Interface function "xml-scheme query"

Path: /public/traindata/xsd

Request:

- no parameter

Response:

- XML-scheme of train data - XMLs

3.4.4 Interface function "example message query"

Path: /public/traindata/example

Request:

- no parameter

Response:

- a valid example for a train data - xml

3.4.5 Error messages

code type	code	description
ERROR	10000	XML is not valid: {0}.
ERROR	10001	{0}/{1}: Station with administration {2} und station number {3} does not exist in master data.
ERROR	10002	RU {0} does not exist in master data.
ERROR	10003	Weight of all dangerous goods {0} kg is higher than the load weight {1} kg.
ERROR	10004	The record {0} of the station {1}/{2} does not exist in master data.
ERROR	10005	The NHM-number {0} does not exist in master data.

code type	code	description
ERROR	10006	The hazard label {0} of the dangerous good including hazardous number {1}, substance number {2}, substance class {3} and packing group {4} does not exist in master data.
ERROR	10007	The dangerous good with hazardous number {1}, substance number {2}, substance class {3} and packing group {4} does not exist in master data.
ERROR	10008	The country with the UID-Code {0} does not exist in master data.
ERROR	10009	The RPC {0} does not exist in master data.
ERROR	10010	The axle load of {0} kg exceeds the maximum axle load of {1} kg.
ERROR	10012	The type of the transporting good {} does not exist in master data.
ERROR	10013	Either the border point code or the take-over station must exist.
ERROR	10014	Station-PLC with administration {2} and station number {1} does not exist in master data.
WARNING	10020	maximum speed current vMax={0} km/h is higher than the maximum speed of the train run section vMax={1} km/h.
ERROR	10021	speed vMax={0} km/h is higher than operationally permitted vMax(type/damage/exceptional consignment)={1} km/h.
ERROR	10022	Braking weight {0} is too high! Max. 1,5 times the total weight {1}.
ERROR	10023	In case of unserviceable or deactivated brake, the braking weight must be 0.
ERROR	10024	{0}/{1}: No RPC for administration {2} and station number {3} available.
ERROR	10025	{0}/{1}: The UBH-Code {2} does not exist in master data.
ERROR	10026	There is no order for the train {0}/{1}.
ERROR	10027	{0}/{1}: The border point code {2} with day of service {3} does not exist.
ERROR	10028	{0}/{1}: The operational consignor RU is not authorized for the transmission. {2} not in {3}!
ERROR	10100	{0}: {1} must be given.
ERROR	10101	{0}: {1} is no valid value for {2}.
ERROR	10102	A train composition for the RequestId {0} does not exist.
SECURITY_ERROR	10103	The operational consignor RU {0} from security-token is not operational consignor RU.
ERROR	10050	The value for {0} is outside of the permitted value range. Value: {1}
ERROR	10051	The value for braking method (brake position) must set to "P", when the train usage has been set to pusher operation. value: '{0}'
ERROR	10061	The message could not be processed because the train composition can no longer be processed in the backend.
ERROR	10062	An error occurred while saving.

code type	code	description
ERROR	10063	The message could not be processed because the train composition is in progress or submitted in the backend.
ERROR	10064	An error occurred during transmission.
ERROR	10065	An error occurred during braking calculation.
ERROR	10066	For RU train statuses 3 and 5, all required values for the reported brake calculation must be provided (field T1_8_2 bis T1_8_10)
ERROR	10067	{0}: Station ({1} {2}) does not exist in master data.

3.4.6 Possible values for the processing state

possible status values for the interface functions "train data report" and "processing state query":

statecode	state	description
1	Processing	The ÖBB INFRA backend has not yet finished processing the train data report.
2	Successfully processed	The ÖBB INFRA backend has successfully processed the train data report.
3	Train already closed	The train data was reported too late and can no longer be taken into account for this train and handover point. Please contact the ÖBB station via phone.
4	Error	The train data report has caused a validation error or could not be processed by ÖBB INFRA for other reasons.

4 RU train status and brake calculation

In principle, the reporting of the train composition can be performed as inbound train, outbound train and pass transit train.

- Inbound train: the train arrives at the handover point (border or handover station) in the reported sequence (wagon and traction unit).
- outbound train: the train departs at the handover point in the reported sequence.
- transit train: the train has the same reported sequence on arrival and departure at the handover point.

If an outgoing or transit train is reported, the report must also contain information for normative rules and brake calculation.


There are two options:

- The RU itself guarantees compliance with the normative rules and the brake calculation
- The RU commissions the checking of the normative rules and the performing of the brake calculation

Both pieces of information (reporting type and information on normative rules) are coded in the "RU train status" field:

Valid values for the field "RU train status"

EVU Zugstatus	Bedeutung	Normative Regeln / Bremsberechnung	Bemerkung
1	inbound train	-	
2	transit train brake calculation not provided	RU commissions the checking of the normative rules and the performing of the brake calculation.	currently not supported
3	transit train brake calculation provided	RU guarantees compliance with all normative rules and provides values for brake calculation.	
4	outbound train brake calculation not provided	RU commissions the checking of the normative rules and the performing of the brake calculation.	
5	outbound train brake calculation provided	RU guarantees compliance with all normative rules and provides values for brake calculation.	


 For Release 1.0, the values 1, 3, 4 and 5 can be sent for the RU train status, with the restriction that 3 and 5 (brake calculation provided) are treated as 4 (brake calculation not provided).

If the RU guarantees compliance with the normative rules and the brake calculation, the fields T1_8_1 to T1_8_10 (brake calculation reported) **must be filled** in completely.

5 Data validation

Gültig für Release

PORTHOS 1.7 with activated FULL version

 [ZDE XSD Dokumentation V1](#) für PORTHOS 1.0.1 applies to activated LITE variant

5.1 Sections

G1	report header
GT1	train data
GT2	hand over points
GT3	traction unit
GW	trainset

Attribute	Description	Data Type n = numeric an = alphanumeric number = maximum length of characters/digit s	P = mandator y / O = optional	frequenc y	references/value sets/examples	validation / remark
G1	report header		P	1		
H1	Sending railway company	n4	P	1	UIC 920-1 (RICS-Code)	RU operationally responsible for

						the transmission of a train data report at a handover point. The operational consignor may differ from the technical consignor.
H2	Receiving railway company	n4	P	1	UIC 920-1 (RICS-Code)	set same value as in T2_3
H3	Message Creation Date/Time	an25	P	1	YYYY-MM-DDThh:mm:00+hh:00	
H4	Type of Environment (production/test)	n1	P	1	0 = Test 1 = Prod (Default)	0: currently not in use
H5	Counter of Preadvice per train	n1	O	0..1		If used, the counter must be increased for each pre-announcement for the same train.
GT1	train data		P	1		
T1_1_1	Number	n5	P	1	UIC 419-2	Check against ordered train journeys
T1_1_2	Estimated date and time at border crossing or at arrival at the next interchange station	an25	P	1	YYYY-MM-DDThh:mm:00+hh:00	

T1_1_3	Planned date time at border crossing or at arrival at the next interchange station; according to timetable	an25	P	1	YYYY-MM-DDThh:mm:00+hh:00	
T1_1_4	Planned date time of departure at first departure station	an25	P	1	YYYY-MM-DDThh:mm:00+hh:00	<p>schedule-day of service for the train</p> <p>If T1_2_2 is not specified, this field is used to check against the ordered train journey</p>
T1_1_5	TrainID	an34	OT1_3_2	0..1	according TAF-TSI	currently not in use
T1_1_6	National train path ID	an34	O	0..99	according TAF-TSI	currently not in use
T1_1_7	RU train status	n1	O	0..1	<p>1 = Input train at reported station.</p> <p>3 = through train at notified station - including brake data. RU carries out the brake calculation and is responsible for the transmitted brake data.</p> <p>4 = Outgoing train at station - without brake data. RU orders the checking of the normative rules and the execution of the brake calculation.</p> <p>5 = Outgoing train at notified station - including brake data. RU carries out the brake calculation and is responsible for the transmitted brake data.</p>	<ul style="list-style-type: none"> If no value is specified and no value is transmitted in T1_8_7, the system interprets an input train (=1). If no value is

						specified and a value is transmitted in T1_8_7, the system interprets a braked outgoing train (=5).
T1_1_8	Truck in driving direction	n1	O	0..1	0 = No 1 = Yes	only for ROLA trains
T1_1_9	Braking method train path (for TR 80 - train preparation DE)	n1	O	0..1	1 = G 2 = R/P	currently not in use
T1_2_1	Path number	an8	O	0..1		currently not in use
T1_2_2	Date of handover (border / station, according to train path)	an10	O	0..1	YYYY-MM-DD	National Day of Service of the train at the transfer country If not specified, T1_1_4 is used for checking against ordered train journey
T1_3_1	Train departure country code	n2	P	0..1	UIC 920-14	
T1_3_2	Train departure station code	n5	P	0..1	UIC 920-2	

T1_3_3	Train departure station name	an35	O	0..1		
GT1_3_4	Group PLC		O	0..1	TAF-TSI (CRD Code)	
T1_3_4_1	ISO Country Code	an2	P	1		currently not in use
T1_3_4_2	Primary Location Code	n5	P	1		currently not in use
T1_3_4_3	Primary Location Name	an255	O	0..1		currently not in use
T1_4_1	Train destination country code	n2	P	0..1	UIC 920-14	
T1_4_2	Train destination station code	n5	P	0..1	UIC 920-2	
T1_4_3	Train destination station name	an35	O	0..1		Validation only for country code (T1_4_1) = 81
GT1_4_4	Group PLC		O	0..1	TAF-TSI (CRD Code)	
T1_4_4_1	ISO Country Code	an2	P	1		currently not in use
T1_4_4_2	Primary Location Code	n5	P	1		currently not in use
T1_4_4_3	Primary Location Name	an255	O	0..1		currently not in use
T1_5_1	Last train formation country	n2	O	0..1	UIC 920-14	currently not in use
T1_5_2	Last train formation station code	n5	O	0..1	UIC 920-2	currently not in use

T1_5_3	Last train formation station name	an35	O	0..1		currently not in use
GT1_5_4	Group PLC		O	0..1	TAF-TSI (CRD Code)	
T1_5_4_1	ISO Country Code	n2	P	1		currently not in use
T1_5_4_2	Primary Location Code	n5	P	1		currently not in use
T1_5_4_3	Primary Location Name	an255	O	0..1		currently not in use
T1_5_5	Actual date and time of departure from last train formation station	an25	O	0..1	YYYY-MM-DDThh:mm:00+hh:00	currently not in use
T1_6_1	Maximum train speed	n3	O	0..1	km/h	currently not in use
T1_6_2	Train braking conditions	an1	O	0..1	G, P always calculated with P	currently not in use
T1_7_1	LOGB_KZ	an8	O	0..1	Routing-Information for INFRA-Backend	currently not in use
	Breaking calculation reported					if T1_1_7 = 3 or 5, then fields T1_8_2 bis T1_8_10 become mandatory fields
T1_8_1	Type of breaking test	n1	O	0..1	0=unknown 1=partly break test 2=full brake test 3=full brake test and at least on wagon group a partly brake test	

T1_8_2	Wagon train length in meter	n4	O	0..1	m (1-9999) rounded up to whole meter	
T1_8_3	Total train length in meter	n4	O	0..1	m (1-9999) rounded up to whole meter	
T1_8_4	Wagon train weight in tonnes	n4	O	0..1	t (1-9999) rounded up to whole meter	
T1_8_5	Total train weight in tonnes	n4	O	0..1	t (1-9999) rounded up to whole meter	
T1_8_6	Existing brake weight percentage wagon train	n3	O	0..1	% (0-99) rounded down to whole brake weight percentage	
T1_8_7	Existing brake weight percentage total train	n3	O	0..1	% (0-99) rounded down to whole brake weight percentage	If T1_1_7 = 3 or 5, then this field is mandatory.
T1_8_8	Existing holding force of total train in kN	n4	O	0..1	kN (1-9999) rounded down to whole kN	
T1_8_9	Gradient used for brake calculation in per mille	n3	O	0..1	‰ (1-999) gradient rounded up to whole per mil	
T1_8_10	Existing holding force of wagon train in kN	n6	O	0..1	kN (1-9999) rounded down to whole kN	
T1_8_11	Brake weight percentage time	an25	O	0..1	YYYY-MM-DDThh:mm:00+hh:00	
T1_8_12	Brake weight percentage_Info	an100	O	0..1		
GT2	Interchange points		P	1-6		
T2_1	Interchange sequence	n1	P	1	1-6	

T2_2	Transferor RU	n4	P	1	RICS-Code of the RU of the incoming train at the handover point	T2_2 or T2_3 must be the orderer, operator or tractionaire at the handover point
T2_3	Transferee RU	n4	P	1	RICS-Code of the RU of the outgoing train at the handover point	T2_2 or T2_3 must be the orderer, operator or tractionaire at the handover point set same value as in H2
GT2_1	Border point		O	0..1	either GT2_1 or GT2_2 must be available	
T2_1_1	Country from which the interchange has taken place	n2	P	1	UIC 920-14	
T2_1_2	Border point code	n2	P	1	last two digits after UIC 920-2	
GT2_2	Special interchange station		O	0..1	either GT2_1 or GT2_2 must be available	
T2_2_1	Special interchange country code	n2	P	1	UIC 920-14	
T2_2_2	Special interchange station code (operational station)	n5	P	1	UIC 920-2	Validation only for country code (T2_2_1) = 81
GT2_3	Group PLC equal code of GT2_1 or GT2_2		O	0..1		
T2_3_1	ISO Country Code	an2	P	1		

T2_3_2	Primary Location Code	n5	P	1		
T2_3_3	Primary Location Name	an255	O	0..1		
GT2_4	Journey origin and/or destination		O	0..1	for TCM optional	currently not in use
T2_4_1	ISO Country Code	an2	O	0..1		currently not in use
T2_4_2	Primary Location Code	n5	O	0..1		currently not in use
T2_4_3	Primary Location Name	an255	O	0..1		currently not in use
T2_4_4	ISO Country Code	an2	P	0..1		currently not in use
T2_4_5	Primary Location Code	n5	P	0..1		currently not in use
T2_4_6	Primary Location Name	an255	O	0..1		currently not in use
GT2_5	Current and Next responsible IM/RU		O	0..1	for TCM optional	currently not in use
T2_5_1	Current responsible RU	n4	O	0..1		currently not in use
T2_5_2	Current responsible IM	n4	O	0..1		currently not in use
T2_5_3	Next responsible RU	n4	O	0..1		currently not in use
T2_5_4	Next responsible IM	n4	O	0..1		currently not in use

GT3	Traction units (working)		O	0..49		Currently a maximum of 9 data records are accepted
T3_1	Traction unit service number(s) working the train	n12	O	0..1	UIC 438-3	If a vehicle is reported, this field is mandatory.
T3_2	Usage code (type of traction)	n2	O	0..1	for traction units at the handover point: e.g. 11-16; 21-26; 31-36; 41-46; 51-56 first digit = is the train use code according TAF/TSI TrainCompositionMsg second digit = the location of this traction unit in the traction unit group for traction unit manipulations after the handover point: <ul style="list-style-type: none"> • 91 = pretensioning traction unit • 92 = pull traction unit • 93 = intermediate traction unit • 94 = pusher traction unit 	If T1_1_7 = 3, 4 or 5, then this field is a mandatory field.
T3_2_1	Position of intermediate unit (after wagon position xx)	n2	O	0..1	Positionsnr wagon - after the intermediate traction unit	
T3_3	Number of axels of traction unit	n2	O	0..1	2-99	
T3_4	Length of traction unit	n5	O	0..1	cm (1000 - 99999)	If T1_1_7 = 3, 4 or 5, then this field is a mandatory field.

T3_5	Weight of traction unit	n6	O	0..1	kg (10000 - 999999)	If T1_1_7 = 3, 4 or 5, then this field is a mandatory field.
T3_6	Used braking system	an1	O	0..1	G = brake position G P = brake position P X = not in use	If T1_1_7 = 3, 4 or 5, then this field is a mandatory field. if usage code (T3_2) = pusher operation (31-36), than this field must be P X will be recoded to P
T3_7	Effective braked weight	n3	O	0..1	t (0-999)	
T3_8a	Handbraked weight	n2	O	0..1	t (1-99)	outdated, use instead T3_8b If T1_1_7 = 3, 4 or 5, then this field or T3_8b must be reported.
T3_8b	Holding force	n4	O	0..1	dkN (1-9999)	rounded down to whole dkN (tenth kN) If T1_1_7 = 3, 4 or 5, then this field or T3_8a must be reported.
T3_9	Control command system	an3	O	0..99		currently not in use

T3_10	Radio system	an2	O	0..99		currently not in use
GT3_11	Driver			0..6		
T3_11_1	Driver first name and family name	an35	O	0..1		currently not in use
T3_11_2	Driver ID	an20	O	0..1		currently not in use
T3_11_3	Contact to driver	an20	O	0..1		currently not in use
T3_11_4	Indicator of the driver	n1	O	0..1	0= Tandem 1= with driver	If T1_1_7 = 3, 4 or 5, then this field is a mandatory field, otherwise not (T1_1_7 = 1) Default = 1 If no value is specified, the system interprets a traction unit with train driver. If usage code (T3_2) =11, 21 or 31, then this field must be 1.
T3_12	Reduced suitability	an1	O	0..1	M	if no value is specified, the system interprets a traction unit with reduced suitability. if a traction unit with a reduced

						suitability should be reported, enter the value "M".
GT3_13	Group PLC		O	0..1	TAF-TSI (CRD Code). Defined as optional in the schema but must be specified.	Must be specified for the external train data reports (RU trains).
T3_13_1	ISO Country Code	an2	P	1		
T3_13_2	Primary Location Code	n5	P	1		
T3_13_3	Primary Location Name	an255	O	0..1		
GT3_14	Group PLC		O	0..1	TAF-TSI (CRD Code).	Must be specified for the external train data reports (RU trains).
T3_14_1	ISO Country Code	an2	P	1		
T3_14_2	Primary Location Code	n5	P	1		
T3_14_3	Primary Location Name	an255	O	0..1		
T3_15	Type of coupling	n2	O	0..1	UIC 920-13; A.15.2: 0 = no coupling 1 = unreinforced coupling < 85 t 2 = reinforced coupling = 85 t 3 = particularly reinforced coupling > 85 t 4 = automatic coupling 5 = DAC single-sided; UIC coupling single-sided 6 = DAC hybrid coupling 7 = DAC	currently not in use

GW	Wagon list (A-Z)		P	1..99		
GW1	Technical wagon data (marked on the wagon)		P	1		
I1_0	Wagon number	n12	P	1	UIC 438-2	only allowed once per train report.
I1_1	Number of axels	n2	P	1		Min: 2
I1_2	Maximum speed, depending on design characteristics	n3	P	1	km/h	Max. 300 km/h Validation error leads to a warning
I1_3	Length over puffer	n5	P	1	cm	Validation 400 cm <= value <= 99999 cm Validation error leads to a warning
I1_4	Tare	n6	P	1	kg	
I1_5	Restrictions, depending on design characteristics	n2	O	0..9	UIC 920-13 - A1.2: 07 = Push-off or run-off only with the handbrake applied 11 = Wagons (except bogie wagons) with a wheelbase of more than 9 m 12 = Bogie wagons with an inner wheelbase of more than 14 m up to and including 17.5 m 13 = Bogie wagons with an inner wheelbase of more than 17.5 metres 14 = Broad-gauge wagons between 11.3 and up to 14.0 m 15 = Wagons not authorised for the hump 16 = Prohibition of push-off and run-off (3 red triangles)	against value set

					<p>18 = Must not travel on active braking devices 25 = Tank wagon for transporting gases with orange longitudinal stripes 41 = Wagon must be positioned at the front of the train 42 = Wagon must be positioned at the rear of the train 63 = Exceptional consignment 70 = Wagon must be shunted carefully (1 red triangle) 71 = Wagon must be shunted with particular care (2 red triangles) 72 = Prohibition of pushing off and running off when loaded 94 = Wagon for the carriage of gases, without orange-coloured longitudinal stripes</p>	
G1_7	Handbrake		O	0..1	UIC 920-13 - A.3.2; if G1_7 will be not reported --> it is equal to 0 - no handbrake	
I1_7_1	Type of handbrake	n1	P	1	<p>0 = no handbrake 1 = ground operable handbrake 2 = handbrake which can be operated from the breaking stand 3 = bodenbedienbare shaft handbrake 4 = ground operable lever handbrake</p>	If the entire block G1_7 (handbrake) is not sent via interface, this field is interpreted by the system with the value 0.
I1_7_2	Braked weight	n3	O	0..1	in tons.	outdated, instead holding force mentioned in I1_7_3
I1_7_3	Parking Brake Force	n4	O	0..1	<p>max. holding force in dkN If no holding force will be reported, the handbrake weight will be used as holding force. if neither of</p>	rounded down to whole dkN (tenth kN)

					the two values will be reported, holding force will be assumed as 0	If I1_7_1 (type of handbrake) != 0 , then this field is mandatory.
G1_8	Air brake		O	0..1	UIC 920-13 - A.4.2; if G1_8 will not be reported--> unknown compressed-air brake	
I1_8_1	Braking system code	n1	P	1	0 = cable wagon 1 = only brake method G (cargo train) 2 = only bake method P (passenger train) 3 = mixed brake (G/P) 8 = without compressed-air brake and without brake line 9 = not codable brake method	against value set
I1_8_2	Braking power variation device	n1	O	0..1	0 = no changeover lever 1 = manual or automatic changeover device with: 1 changeover weight and 2 positions 2 = 2 or 3 changeover weights and 2 or 3 positions 8 = automatic load-dependent brake with details of the highest brake weight 9 = not codable changeover device	If value "8" is transmitted, a maximum brake weight must be coded in I1_8_4.
I1_8_3	Special characteristics of air brake	n1	O	0..1	0 = no particularly characteristic (graduated brake with cast metal sole) 1 = disc brakes 2 = plastic brake blocks 3 = direct release brake 4 = direct release brake with plastic brake blocks 5 = silent plastic brake blocks (L) 6 = very silent plastic brake blocks (LL) 9 = not codable information	If not specified, 0 is interpreted by the system.
I1_8_4	Value of characteristic masses	n3	O	0..7	list of characteristic brake weights and changeover weights of the wagon in tonnes for all combinations of I1_8_1 and I1_8_2	See table below for coding.

						Currently only relevant for load-dependent braking, see I1_8_2.
I1_8_5	Number of brake units	n1	O	0..1	0-9	
I1_10	Type of coupling	n2	O	0..1	UIC 920-13 - A.15.2: 0 = no coupling 1 = unreinforced coupling < 85 t 2 = reinforced coupling = 85 t 3 = particularly reinforced coupling > 85 t 4 = automatic coupling 5 = DAC one-sided; UIC coupling one-sided 6 = DAC cybrid coupling 7 = DAC	
I1_11	Height of loading plane in unladen state	n4	O	0..1	mm	
I1_12	Minimum radius curve that can be traversed	n3	O	0..1	m	
I1_13	Minimum vertical radius of yard humps that can be traversed	n4	O	0..1	m	
I1_14	Number of bogies	n2	O	0..1		
I1_15	Bogie pivot pitch	n4	O	0..1	cm	
I1_16	Bogie pitch	n3	O	0..1	cm	
I1_17	Inner wheelbase	n4	O	0..1	cm	If the value is < 300 cm or >= length over buffer

						(I1_3), then a warning is issued.
I1_18	Vehicle keeper marking	an5	O	0..1	field "UNIQUE" from Vehicle Keeper Marking register (VKM) https://www.era.europa.eu/domains/registers/vkm_en	
I1_19	Effective loading length	n5	O	0..1	cm	
I1_20	Effective loading area	n3	O	0..1	m2	
I1_21	Effective loading capacity	n3	O	0..1	m3	
G1_22	Table of load limits		P	1	UIC 920-13 - A.16.2	currently not in use
G1_22_1	List of load limits		O	0..9		currently not in use
G1_22_1_1	List of countries where applicable		P	1		
I1_22_1_1_1	Number of countries	n2	P	1	0 = for all countries if main table 1..20	currently not in use
I1_22_1_1_2	Country	n2	O	0..20	(10-99)	currently not in use
G1_22_1_2	Speed categories		P	1		
I1_22_1_2_1	Number of speed categories	n1	P	1		currently not in use
G1_22_1_2_2	List of speed categories		P	1..6		

I1_22_1_2_2_1	Speed	n3	P	1	km/h	currently not in use
I1_22_1_2_2_2	Number of stars	n1	P	1	0,1,2,3	currently not in use
I1_22_1_3	Line category	an2	P	1..15	A, B, B1, B2, C, C2, C3, C4, D, D2, D3, D4, E, E4, E5, Following values are only allowed in the sub-table, not in the main-table: CE, CM, M2, M3, M4	currently not in use
I1_22_1_4	Authorised maximum load	n4	P	1..72	1/10t	currently not in use
I1_23	List of countries on agreement grid	n2	O	0..99	UIC CountryCode	currently not in use
G1_24	Removable accessories and special equipment on wagons		O	0..20	UIC 920-13 - A.6.2	currently not in use
I1_24_1	Type of accessory	n..2	P	1		currently not in use
I1_24_2	Number of accessories of a specific type	n..2	O	0..1		currently not in use
G1_25	Overhaul		O	0..1		currently not in use
I1_25_1	Date of last overhaul	an10	O	0..1	YYYY-MM-DD	currently not in use
I1_25_2	Overhaul cycle	n2	O	0..1	in years (Minimum =1)	currently not in use

I1_25_3	Tolerance on overhaul date	n1	O	0..1	months	currently not in use
I1_25_4	Next overhaul	an10	O	0..1	YYYY-MM-DD	currently not in use
G1_26	Interoperability / Loading Gauge		O	0.1	Optional für TCM	currently not in use
I1_26_1	Interoperability code / Loading Gauge	n2	P	0..9	--> Sheet Codelist_GaugeCode	currently not in use
I1_26_2	IM or RU Code on Wagon	n4	O	0.99	RU Codes	currently not in use
I1_27	Number of vehicle components (for articulated wagon)	n2	O	0..1	e.g. 2	Default = 1 if no value is specified, the system interprets 1 vehicle component.
I1_28	Door blockage TB0	n1	O	0..1	0 = No 1 = Yes	mandatory if, RU train status 3, 4 or 5 AND passenger wagon on train (e.g.: ROLA escort wagon)
GW2	Damage wagon data		O	0..9		
I2_1	Damage label (code)	n2	O	0..5	subset of UIC 920-13 A5.2 restrictions or prohibition on the reuse of freight wagons wagon is serviceable but must be inspected for technical reasons: 30= Unclear damage (not in the UIC standard!) 31= M - to be inspected 32= R1 - handbrake unserviceable	against value set

					33= Air brake or automatic suction brake inoperable 34= Handbrake and air brake unusable wagon cannot be used for technical reasons: 41= K blue - Cannot be reloaded after unloading ...	
I2_2	Irregularity code	an10	O	0..1	AVV/GCU/CUU Annex 9	
I2_3	Speed restriction due to irregularity	n3	O	0..1	km/h	Max. 300 km/h Validation error leads to a warning
I2_4	Restriction due to irregularity	n2	O	0..7	subset of UIC 920-13 A1.2 Carriage restrictions 07= Push-off or run-off only with handbrake applied 15= Wagon not authorised for the hump 16= Prohibition of pushing off and running off (3 red triangles) 41= Wagon must be positioned at the front of the train 42= Wagon must be positioned at the end of the train 70= Wagon must be shunted carefully (1 red triangle) 71= Wagon must be shunted with particular care (2 red triangles)	
GWC	CIM/CUV/Commercial wagon data		P	1		
GWC1	Operational origin of wagon		P	1		
WC1_1	Origin country code	n2	P	1	UIC 920-14	according UIC
WC1_2	Origin station code	n5	P	1	UIC 920-2	according UIC

						Validation only for country code (WC1_1) = 81
WC1_3	Origin station name	an35	O	0..1		
WC1_4	Origin RU	n4	O	0..1	UIC 920-1	according UIC
GWC2	Commercial forwarding data		O	0..1		
WC2_1	Forwarding country	n2	P	1	UIC 920-14	according UIC; if not provided, WC1_1 will be used
WC2_2	Forwarding station code	n5	P	1	UIC 920-2	according UIC; if not provided, WC1_2 will be used Validation only for country code (WC2_1) = 81
WC2_3	Forwarding station name	an..35	O	0..1		
WC2_4	Forwarding RU	n4	O	0..1	UIC 920-1	according UIC; if not provided, WC1_4 will be used
WC2_5	Dispatch number	n5	O	0..1		
WC2_6	Dispatch date	an10	O	0..1	YYYY-MM-DD	mandatory if WC2_5 is filled. Validation error leads to a warning

WC2_7	Location of transport documents	n1	O	0..1	0 = unknown 1 = on wagon 2 = on intermodal loading unit 3 = on traction unit 4 = on separate wagon 5 = electronic	
WC2_8	Booking Number/ XcbBookingRecordID	an64	O	0..1	Capacitybooking - XcbBookingRecordId	
WC2_9	GV-ID	n10	O	0..1	GV-ID	
WC2_10	DossierNumber	an19	O	0..1	Dossiernumber	
WC3_1	Consignor client code	an16	O	0..1	according UIC 920-10; without RU-Code e.g. 8022618	
WC3_2	Consignor client name	an24	O	0..1		
GWC3_3	Group PLC		O	0..1	in addition to GWC1 and GWC2, if CRD code available. CRD (GWC3_3) send alone - ONLY allowed with bilateral agreement	
WC3_3_1	ISO Country Code	an2	P	1		currently not in use
WC3_3_2	Primary Location Code	n5	P	1		currently not in use
WC3_3_3	Primary Location Name	an255	O	0..1		currently not in use
GWC3_3_4	Group SLC		O	0..1		
AT:WC3_3_4_1	Subsidiary Location Typ	an2	P	0..1		currently not in use
WC3_3_4_2	Subsidiary Location Code	an10	P	1		currently not in use

WC3_3_4_3	Allocation company	n4	O	0..1		currently not in use
WC3_3_4_4	Subsidiary location Name	an255	O	0..1		currently not in use
GWC4	Destination for the operations process		P	1		
WC4_1	Destination country	n2	P	1	UIC 920-14	according UIC
WC4_2	Destination station Code	n5	O	0..1	UIC 920-2;	according UIC mandatory field for loaded wagons (WL0=1) and for empty wagons according re-admission agreement Validation only for country code (WC4_1) = 81
WC4_3	Destination station Name	an35	O	0..1		
WC4_4	Destination RU	n4	O	0..1	UIC 920-1	according UIC
WC4_5	Sort code of destination station	an5	O	0..1	e.g. 47003	validation if WC4_1 = 81 (AT)
GWC5	Destination for the commercial department		O	0..1		
WC5_1	Destination country	n2	O	0..1	UIC 920-14	according to UIC If not transmitted, WC4_1 is used

WC5_2	Destination station Code	n5	O	0..1	UIC 920-2	according to UIC Validation only for country code (WC5_1) = 81 if not transmitted, WC4_2 is used
WC5_3	Destination station Name	an35	O	0..1		currently not in use
WC5_4	Destination RU	n4	O	0..1	UIC 920-1	currently not in use
WC6_1	Delivery location code	an12	O	0..1	SLC37	
WC6_2	Delivery location name	an35	O	0..1		
WC6_3	Consignee client code	an16	O	0..1		
WC6_4	Consignee client name	an24	O	0..1		
GWC6_5	Group PLC		O	0..1	in addition to GWC4 and GWC5, if CRD code available. CRD (GWC6_5) alone - ONLY allowed with bilateral agreement. In this case WC4_1 must be sent as country (mandatory field)	
WC6_5_1	ISO Country Code	an2	P	1		currently not in use
WC6_5_2	Primary Location Code	n5	P	1		currently not in use
WC6_5_3	Primary Location Name	an255	O	0..1		currently not in use

GWC6_5_4	Group SLC		O	0..1		
AT:WC6_5_4_1	SLC-ID	an2	P	0..1		currently not in use
WC6_5_4_2	Subsidiary Location Code	an10	P	1		currently not in use
WC6_5_4_3	Allocation Company	n4	O	0..1		currently not in use
WC6_5_4_4	Subsidiary location Name	an255	O	0..1		currently not in use
GWC7	List of interchange or border crossing points		O	0..20	First points of border crossing (in accordance with waybill field 50), then points of special delivery (in accordance with waybill field 57), in each case in the correct Sequence	
WC7_1	Type of interchange or border crossing point	n1	P	1	1 = handover between two RUs. Can be a special handover station or border point. sein.	
WC7_2	Transferor RU	n4	O	0..1		
WC7_3	Transferee RU	n4	O	0..1		
WC7_4	Country the border is crossed from	n2	O	0..1	UIC 920-14; country code of handover border point from which the handover takes place	either WC7_4 & WC7_5 & WC7_6 or WC7_7 & WC7_8 If the operational destination station (WC4_1) is outside Austria (not equal to 81), then at least one border point with

						WC7_4 = 81 (i.e. a border crossing from Austria to abroad) must exist. Otherwise a warning is returned.
WC7_5	Border crossing point code	n2	O	0..1	UIC 920-2; Para 4.3.1.4 - 5; border point code of the transfer point	either WC7_4 & WC7_5 & WC7_6 or WC7_7 & WC7_8 If WC7_4 = 81, this field is validated, which can lead to a warning.
WC7_6	Order number of group	an1	O	0..1	UIC 428-3; status number of the transfer border point	either WC7_4 & WC7_5 & WC7_6 or WC7_7 & WC7_8
WC7_7	Interchange station country	n2	O	0..1	UIC 920-14; country code of the transfer station	either WC7_4 & WC7_5 & WC7_6 or WC7_7 & WC7_8
WC7_8	Interchange station code	n5	O	0..1	UIC 920-2; number of the transfer station	either WC7_4 & WC7_5 & WC7_6 or WC7_7 & WC7_8
WC7_9	Group PLC		O	0..1		currently not in use
WC7_9_1	ISO Country Code	n2	P	1		currently not in use

WC7_9_2	Primary Location Code	n5	P	1		currently not in use
WC7_9_3	Primary Location Name	an255	O	0..1		currently not in use
GWL	Wagon Load		P	1		
WL0	Loading status	n1	P	1	UIC 920-13 A.14.2 0 = empty 1 = loaded	must be 0 (empty) , when WL1 = 0 or must be 1 (loaded), if WL1 > 0.
WL1	Weight of the load	n6	P	1	kg	
GWL2	Additional Info		O	0..1		
WL2	Weight of additional equipment	n6	O	0..1	kg	
WL2_1	Type of loading gear	n2	O	0..20	UIC 920-13 - A.10.2	currently not in use
WL2_2	Number of similar types of gear	n3	O	0..20	in relation to WL2_1	currently not in use
GWL3	Information per NHM		P	1..99		
WL3	Freight commodity (NHM)	an8	P	1	UIC NHM - harmonised goods catalogue (6 or 8 digits) 440710 or 44071000 or 01441023	Validation error leads to a warning
WL_3_1	Weight of NHM	n6	O	0..1	kg	must be >= sum of all WLR_7, if dangerous goods are reported

WL_3_2	Additional text to NHM	an255	O	0..1	zusätzliche Information zum Ladegut (im Speziellen für Kunde oder Zoll)	
GWLR	List of dangerous goods		O	0..99	UIC 920-13 - A.9.2	for use if there is no intermodal traffic, otherwise GULRZ
WLR_1	Hazard identification number	an4	O	0..1	e.g. 668	validated against master data according 920-13 - A.9.2
WLR_2	Identification code of substance (UN-number)	n4	O	0..1	e.g. 2481	validated against master data according 920-13 - A.9.2
WLR_3	Class	an4	O	1	e.g. 6.1	validated against master data according 920-13 - A.9.2
WLR_4	Classification code	an4	O	0..1	e.g. TF1	validated against master data according 920-13 - A.9.2
WLR_5	Packing group	an3	O	0..1	e.g. II	validated against master data according 920-13 - A.9.2
WLR_6	RID name and description	an350	O	0..1	e.g. Ethylisocyanat"	
WLR_7	Weight of dangerous good	n6	O	0..1	kg	

WLR_8	Weight of net explosive mass	n6	O	0..1	kg; RID Class 1	currently not in use
WLR_9	Hazard label	n2	O	0..9	UIC 920-13 - A.9.2 e.g. 61	according UIC 920-13 - A.9.2
WLR_10	Special provisions	an4	O	0..1	e.g. 354	currently not in use
WLR_11	Additional chemical name to WLR_10	an255	O	0..1		currently not in use
WLR_12	Special provisions ADR/RID tanks	an4	O	0..1	e.g. TU14	currently not in use
GU	Intermodal transport data		O	0..99		
U_1	Type of unit	n2	P	1	00 = unknown 01 = container 02 = WAB (swap body) 03 = SAL (semitrailer) 04 = LKW	
U_2	Unit number	an11	P	1	ILU Code UIC MB 596	
U_3	Length (ft)	n2	O	0..1	Feet	currently not in use
U_4	Length (mm)	n5	O	0..1	mm	currently not in use
U_5	Height of unit	n4	O	0..1	mm	currently not in use
U_6	Tare of unit	n6	O	0..1	kg	currently not in use
U_7	Gross weight	n6	O	0..1	kg	

GUC	ITU - commercial forwarding data		O	0..1		currently not in use
UC2_1	Forwarding country	n2	P	1	UIC 920-14	currently not in use
UC2_2	Forwarding station code	n5	O	1	UIC 920-2	currently not in use
UC2_4	Forwarding RU	n4	O	0..1	UIC 920-1	currently not in use
UC2_5	Consignment number	n5	P	1		currently not in use
UC3_1	Consignor client code	an16	O	0..1	UIC 920-10; without RU code	currently not in use
UC3_2	Consignor client name	an24	O	0..1		currently not in use
GUC3_3	Group PLC		O	0..1	in addition to UC2_1 and UC2_2, if CRD code available. CRD (GUC3_3) send alone - ONLY allowed with bilateral agreement. In this case, UC2_1 and UC2_5 must be sent (mandatory field)	currently not in use
UC3_3_1	ISO Country Code	an2	P	1		currently not in use
UC3_3_2	Primary Location Code	n5	P	1		currently not in use
UC3_3_3	Primary Location Name	an255	O	0..1		currently not in use
GUC3_3_4	Group SLC		O	0..1		currently not in use
AT:UC3_3_4_1	SLC-ID	an2	P	0..1		currently not in use

UC3_3_4_2	Subsidiary Location Code	an10	P	1		currently not in use
UC3_3_4_3	Allocation Company	n4	O	0..1		currently not in use
UC3_3_4_4	Subsidiary location Name	an255	O	0..1		currently not in use
UC5_1	Destination country	n2	P	1	UIC 920-14	currently not in use
UC5_2	Destination station Code	n5	O	0..1	UIC 920-2	currently not in use
UC5_3	Destination station Name	an35	O	0..1		currently not in use
UC5_4	Destination RU	n4	O	0..1	UIC 920-1	currently not in use
UC6_1	Delivery location code	an12	O	0..1		currently not in use
UC6_3	Consignee client code	an16	O	0..1	UIC 920-10; without EVU code	currently not in use
UC6_4	Consignee client name	an24	O	0..1		currently not in use
GUC6_5	Group PLC		O	0..1	in addition to UC5_1 and UC5_3, if CRD code available. CRD (GUC6_5) send alone - ONLY allowed with bilateral agreement.	currently not in use
UC6_5_1	ISO Country Code	an2	P	1		currently not in use
UC6_5_2	Primary Location Code	n5	P	1		currently not in use

UC6_5_3	Primary Location Name	an255	O	0..1		currently not in use
GUC6_5_4	Group SLC		O	0..1		currently not in use
AT:UC6_5_4_1	SLC-ID	an2	P	0..1		currently not in use
UC6_5_4_2	Subsidiary Location Code	an10	P	1		currently not in use
UC6_5_4_3	Allocation Company	n4	O	0..1		currently not in use
UC6_5_4_4	Subsidiary location Name	an255	O	0..1		currently not in use
GUCN	ITU information per NHM		O	0..99		
UCN_1	Freight commodity (NHM)	an8	O	1		currently not in use
UCN_2	Weight of NHM	n6	O	0..1	kg	currently not in use
UCN_3	Additional information to NHM	an255	O	0..1		currently not in use
GULR	List of dangerous goods		O	0..99	RID; UIC920-13 - A.9.2	in case of intermodal traffic instead of using group GWLR
ULR_1	Hazard identification number	an4	O	0..1	e.g. 668	validated against master data according 920-13 - A.9.2

ULR_2	Identification code of substance (UN-number)	n4	O	0..1	e.g. 2481	validated against master data according 920-13 - A.9.2
ULR_3	Class	an4	O	1	e.g. 6.1	validated against master data according 920-13 - A.9.2
ULR_4	Classification code	an4	O	0..1	e.g. TF1	validated against master data according 920-13 - A.9.2
ULR_5	Packing group	an3	O	0..1	e.g. II	validated against master data according 920-13 - A.9.2
ULR_6	RID name and description	an350	O	0..1	e.g. Ethylisocyanat"	
ULR_7	Weight of dangerous good	n6	O	0..1	kg	
ULR_8	Weight of net explosive mass	n6	O	0..1	kg; RID Class 1	currently not in use
ULR_9	Hazard label	n2	O	0..9	UIC 920-13 - A.9.2 e.g. 61	according 920-13 - A.9.2
ULR_10	Special provisions	an4	O	0..1	e.g. 354	currently not in use
ULR_11	Additional chemical name to ULR_10	an255	O	0..1		currently not in use
ULR_12	Special provisions ADR/RID tanks	an4	O	0..1	e.g. TU14	currently not in use

ULS_1	Combined transport profile number	an4	O	0..1	596- e.g. C45 ; C410 etc...	currently not in use
ULS_6	ITU-Characteristics	n2	O	0..9	subset von UIC 920-13 - A.18.2: 96, 97, 98, 99	currently not in use
GULS_4_1	Type of customs procedure applied		O	0..4	UIC 920-13; A.13.2.4a: Attribute. 1;2;3;9	currently not in use
ULS_4_1_1	Customs procedure code	an25	O	0..99	UIC 920-13; A.13.2.4b	currently not in use
GWLS	Special load		P			
GWLS_1	Identification of a special load / Technical number		O	0..1		
GWLS_1_1	List of approval numbers		O	0..9		
WLS_1_1_1	Country concerned	n2	P	1	UIC 920-14 and 00 = for all countries	
WLS_1_1_2	Forwarding approval number	an24	O	0..1	e.g. N4900222	Value is validated if WLS_1_1_1 = 81 (AT)
WLS_2	Macro-profile number	n3	O	0..1	502-2	Failed validation against profile master data leads to a warning
WLS_3	Speed restriction for special load	n3	O	0..1	km/h	
GWLS_2	Forwarding method, monitoring, guaranteed transit time		O	0..1	UIC 920-13 - A.7.2	

GWLS_2_1	Transport monitoring		O	0..1		
WLS_2_1_1	Monitoring code	n2	P	1	0 ..99	currently not in use
WLS_2_1_2	Monitoring RU	n4	O	0..9	UIC 920-1	currently not in use
GWLS_2_2	Forwarding method		O	0..1		
WLS_2_2_1	Forwarding method code	n1	P	1	1 = <not used> 2 = transportation plan 4 = overnight 5 = post 6 = express cargo 8 = block train intended 9 = on demand train run	
WLS_2_2_2	Forwarding RU	n4	O	0..9	UIC 920-1	currently not in use
WLS_2_3	Traffic schedule number	an10	O	0..1	biliteral useable	
WLS_2_4	Shipment priority (from KAPA)	an1	O	0..1	E = Economy P = Prime empty = no shipment priority	
GWLS_3	Treatment to be given to the load or wagon (sorted)		O	0..9	UIC 920-13 - A.8.2 and A.13.2 Attribute:counter 1-9	
WLS_3_1	Country of treatment	n2	P	1	UIC 920-14	
WLS_3_2	Treatment station code	n5	O	1	UIC 920-2	mandatory field, if UBH will be reported Validation only for country code (WLS_3_1) = 81

WLS_3_3	Treatment station name	an35	O	0..1		
WLS_3_4	Type of treatment	n2	P	1	UIC 920-13; A.8.3	validation according 920-13 A.8.3
GWLS_3_5	Group PLC		O	0..1	in addition to WLS3_1 and WLS3_2, if CRD code available. CRD (GWLS_3_5) send alone - ONLY allowed with bilateral agreement. In this case, WLS_3_1 and WLS_3_4 must be sent (mandatory fields)	
WLS_3_5_1	ISO Country Code	an2	P	1		currently not in use
WLS_3_5_2	Primary Location Code	n5	P	1		currently not in use
WLS_3_5_3	Primary Location Name	an255	O	0..1		currently not in use
GWLS_3_5_4	Group SLC		O	0..1		
AT:WLS_3_5_4_1	SLC-ID	an2	P	0..1		currently not in use
WLS_3_5_4_2	Subsidiary Location Code	an10	P	1		currently not in use
WLS_3_5_4_3	Allocation Company	n4	O	0..1		currently not in use
WLS_3_5_4_4	Subsidiary location Name	an255	O	0..1		currently not in use
GWLS_4	Customs clearance conditions		O	0..1		

WLS_4_1	Type of customs clearing point	n1	O	1	UIC 920-13 - A.13.2.1	currently not in use
WLS_4_2	Customs clearance country	n2	O	1	UIC 920-14	if set, the UBH customs clearance is derived
WLS_4_3	Customs clearance station code	n5	O	0..1	UIC 920-2	if set, the UBH customs clearance is derived Validation only for country code (WLS_4_2) = 81
WLS_4_4	Customs clearance station name	an35	O	0..1		
GWLS_4_5	Group PLC		O	0..1		
WLS_4_5_1	ISO Country Code	an2	P	1		currently not in use
WLS_4_5_2	Primary Location Code	n5	P	1		currently not in use
WLS_4_5_3	Primary Location Name	an255	O	0..1		currently not in use
GWLS_4_5_4	Group SLC		O	0..1		
AT:WLS_4_5_4_1	SLC-ID	an2	P	0..1		currently not in use
WLS_4_5_4_2	Subsidiary Location Code	an10	P	1		currently not in use
WLS_4_5_4_3	Allocation Company	n4	O	0..1		currently not in use

WLS_4_5_4_4	Subsidiary location Name	an255	O	0..1		currently not in use
GWLS_4_1	Type of customs procedure	n1	O	0..4	UIC 920-13 - A.13.2.4a: 1;2;3;9 ; Attribute	currently not in use
WLS_4_1_1	customs procedure code	an25	O	0..99	UIC 920-13 - A.13.2.4b	currently not in use
GWLS_5	Monitoring bodies		O	0..9		
WLS_5_1	RU	n4	P	1	UIC 920-1	currently not in use
WLS_5_1_1	Reference number	n5	O	0..1	bilateral useable	currently not in use
GWLS_6	Additional information concerning the shape, type and danger of the product carried		O	0..9	UIC 920-13 - IA.17.2 und A.18.2	
WLS_6	Characteristics	n2	P	1	96 = environmentally hazardous substances 97 = Dangerous goods packed in limited quantities over 8 tonnes (LQ) 98 = live animals 99 = perishable food products	Validation error leads to a warning
GWLS_7	Cargo-associated transport limitations		O	0..12	UIC 920-13 - A.1.2	
WLS_7	Restriction	n2	P	1	08 = Tank wagon loaded with liquids 09 = Wagon occupied by persons 15 = Wagon not authorised for the hump 16 = Prohibition of push-off and run-off (3 red triangles) 41 = Wagon must be positioned at the front of the train	against value set

					<p>42 = Wagon must be placed at the end of the train 61 = Wagon belongs to a consignment consisting of several wagons 62 = Wagon belongs to a group of wagons that may not be separated 63 = Exceptional consignment 68 = First or last wagon of a wagon group that must not be separated 70 = Wagon must be shunted carefully (1 red triangle) 71 = Wagon must be shunted with particular care (2 red triangles)</p>	
WLS_7_1	Number of accompanying persons	n2	O	0..1	mandatory and validation if, WLS_7 = 09 (value set 1 - 99)	Results in a warning in the event of an error
GWLS_8	Restrictions or prohibitions on re-use of wagons		O	0..5		
WLS_8	GCU/RIV re-use codes	n2	P	1	UIC 920-13 -A.5.2:	currently not in use
GWA	Current operational Wagon data		P	1		
WA_1	Brake weight actual	n3	P	1	t	If WA_2 = G or P: max. permitted value = 1.5 times WA_4; If WA_2 = X: 0
WA_2	Braking system actual	an1	P	1	G = brake position G P = brake position P X = brake not in use (deactivated or unsuitable)	
WA_2_1	Handbrake status	an1	O	0..1	1 = in use and calculated 2 = in use, calculated and reviewed	

					X = not calculated D = not calculated and unserviceable	
WA_3	Speed for the movement in question (according the Table of max load)	n3	P	1	km/h	Must be <= than: - I1_2 - smallest value of all 2_3 - WLS_3
WA_4	Total wagon weight	n7	P	1	kg	validation against maximum permitted axle load of max 22,5 t
WA_5	Entity in charge of maintenance (ECM)	an300	O	0..1		currently not in use

5.2 Coding of the characteristic brake weights (I1_8_4)

The characteristic brake weights of a wagon are coded in the fields I1_8_1, I1_8_2 and I1_8_4.

Depending on the type of brake (I1_8_1) and the type of braking power variation device (I1_8_2), the list of numbers in I1_8_4 has a different meaning.

e.g. brake type = 1 and type of braking power variation device = 1:

- First value in I1_8_4 → Brake weight with braking power variation device in "empty" position
- Second value in I1_8_4 → Changeover weight
- Third value in I1_8_4 → Brake weight with braking power variation device in "loaded" position

Data			Meaning of the values in list I1_8_4 - all values in (t)						
Braking system I1_8_1	Braking power variation device I1_8_2	Number of values in I1_8_4	1. value	2. value	3. value	4. value	5. value	6. value	7. value

Data			Meaning of the values in list I1_8_4 - all values in (t)						
1	0	no matter	Brake weight for brake position = G						
2	0	no matter	Brake weight for brake position = P						
3	0	1	Brake weight for brake position = G / P						
3	0	2	Brake weight for brake position = G	Brake weight for brake position = P					
1	1	no matter	Brake weight for brake position = G "Empty" position of the braking power variation device	Brake weight for brake position = G	Brake weight for brake position = G "Loaded" position of the braking power variation device				
2	1	no matter	Brake weight for brake position = P "Empty" position of the braking power variation device	Brake weight for brake position = P	Brake weight for brake position = P "Loaded" position of the braking power variation device				
3	1 or 2	3	Brake weight for brake position = G / P	Brake weight for brake position = G / P	Brake weight for brake position = G / P				

Data			Meaning of the values in list I1_8_4 - all values in (t)						
			"Empty" position of the braking power variation device		"Loaded" position of the braking power variation device				
3	1	5	Brake weight for brake position = G "Empty" position of the braking power variation device	Brake weight for brake position = G / P	Brake weight for brake position = G "Loaded" position of the braking power variation device	Brake weight for brake position = P "Empty" position of the braking power variation device	Brake weight for brake position = P "Loaded" position of the braking power variation device		
3	2	7	Brake weight for brake position = G "Empty" position of the braking power variation device	Brake weight for brake position = G / P "Partially loaded" position of the braking power variation device	Brake weight for brake position = G "Partially loaded" position of the braking power variation device	Brake weight for brake position = P "Empty" position of the braking power variation device	Brake weight for brake position = P "Partially loaded" position of the braking power variation device	Brake weight for brake position = G / P "Loaded" position of the braking power variation device	Brake weight for brake position = G / P "Loaded" position of the braking power variation device
1	8	no matter	Maximum brake weight for brake position = G						
2	8	no matter	Maximum brake weight for brake position = P						
3	8	1	Maximum brake weight for brake position = G / P						

Data			Meaning of the values in list I1_8_4 - all values in (t)						
3	8	2	Maximum brake weight for brake position = G	Maximum brake weight for brake position = P					
3	8	3	Brake weight for brake position = G / P "Empty" position of the braking power variation device	Brake weight for brake position = G / P	Brake weight for brake position = G / P "Loaded" position of the braking power variation device				

6 Changelog (RU-Documentation)

Betrifft Release
PORTHOS 1.7

6.1 Changes of the published version from 23.08.2024

Feld	Änderung	applicable Version (FULL, LITE)	Doc. Status open: Change in documentation still pending. closed: Change incorporated into documentation.	Source
GWC1	Wrong documented optional block has been corrected to mandatory.	LITE and FULL	closed	

6.2 Changes of the published version from 30.04.2024

Feld	Änderung	applicable Version (FULL, LITE)	Doc. Status open: Change in documentation still pending. closed: Change incorporated into documentation.	Source	
T2_2, T2_3	Adaptation of the comment to "T2_2 or T2_3 must be the customer, operator or tractionaire provider at the transfer point"	FULL	closed	\$ PORT-13769 - CR 201 ZDE Schnittstellenmapping Behandlungspunkt FERTIG	
GT2_3	Adjustment of the comment so that this group is in use.	FULL	closed		
T1_1_7	Adjustment of the comment on the consideration of T1_8_7	FULL	closed		\$ PORT-13770 - CR 201 ZDE Schnittstellenmapping Eingang/Ausgang FERTIG
T1_8_7	Adjustment of the validation regarding mandatory field	FULL	closed		\$ PORT-13353 - ZDE Entität Bremsberechnung / Bremsberechnung gemeldet V2 FERTIG
T3_2	Adjustment of the validation regarding mandatory field	FULL	closed		\$ PORT-8211 - CR 103: Zugdateneinmeldung Empfang von Hermes Meldungen FERTIG
T3_4	Adjustment of the validation regarding mandatory field	FULL	closed		
T3_5	Adjustment of the validation regarding mandatory field	FULL	closed		
T3_6	Adjustment of the validation regarding mandatory field	FULL	closed		

Feld	Änderung	applicable Version (FULL, LITE)	Doc. Status open: Change in documentation still pending. closed: Change incorporated into documentation.	Source
T3_11_4	Adjustment of the validation regarding mandatory field	FULL	closed	
T3_8a	Adjustment of the validation regarding mandatory field	FULL	closed	
T3_8b	Adjustment of the validation regarding mandatory field	FULL	closed	

Release
PORTHOS 1.0.1

6.3 Changes of the published version from 04.03.2024

Field	Changes
T1_3_2	Validation removed
T1_4_2	Validation removed
T2_2_2	Addition to validation: : "Validation only for country code (T2_2_1) = 81"

Field	Changes
T3_6	Detailing of the value set
I1_2	Addition to validation: "Validation error leads to a warning"
I1_3	Addition to validation: "Validation error leads to a warning"
I1_8_2	Addition to validation: "If 8, a maximum brake weight must be coded in I1_8_4."
I1_8_4	Addition to validation: "Coding see table below. Currently only relevant for load-dependent braking, see I1_8_2."
I1_11	Example concretised by unit: "mm"
I2_3	Addition to validation: "Validation error leads to a warning"
WC1_2	Addition to validation: "Validation only for country code (WC1_1) = 81"
WC2_2	Addition to validation: "Validation only for country code (WC2_1) = 81"
WC2_6	Addition to validation: "Validation error leads to a warning"
WC4_2	Addition to validation: "Validation only for country code (WC4_1) = 81"
WC5_1	Addition to validation: "if not supplied, WC4_1 is used"
WC5_2	Addition to validation: "according to UIC - validation only for country code (WC5_1) = 81; if not supplied, WC4_2 is used"
WC7_4	Addition to validation: "If the operational destination station (WC4_1) is outside Austria (not equal to 81), then at least one border point with WC7_4 = 81 (i.e. a border crossing from Austria to abroad) must exist. Otherwise a warning is returned."
WC7_5	Addition to validation: "If WC7_4 = 81, this field is validated, which can lead to an error."
WL3	Addition to validation: "Validation error leads to a warning"
WLS_2	Addition to validation: "Failed validation against profile master data leads to a warning"
WLS_3_2	Addition to validation: "Validation only for country code (WLS_3_1) = 81"
WLS_4_3	Addition to validation: "Validation only for country code (WLS_4_2) = 81"
WLS_6	Addition to validation: "Validation error leads to a warning"

Field	Changes
WLS_7_1	Addition to validation: "Leads to a warning in the event of an error"
WA_2_1	Remark deleted: "Currently not in use"

Release
PORTHOS 1.0

6.4 Changes of the published version from 15.11.2023

Field	Changes
H1	Change of the validation: "Validation against the value set. Only RUs defined in the OBS are permitted" removed.
T1_1_1	Ergänzung der Validierung: "Prüfung gegen bestellte Zugfahrten" Addition of the validation: "Check against ordered train journeys"
T1_1_4	Addition of the validation: "If T1_2_2 is not specified, this field is used to check against the ordered train journey "
T1_1_7	Addition of value sets and validation rules: "If no value is specified, the system interprets an incoming train (=1). For Release 1.0 - a RU train status 1, 3, 4 and 5 can be sent, with the restriction that 3 and 5 (braked trains) are treated as 4 (unbraked trains)"
T1_2_2	Addition of the description and validation: "National Day of Service of the train at the transfer country. If not specified, T1_1_4 is used for checking against ordered train journey"
T1_3_2	Addition of the validation: "Validation only for country code (T1_3_1) = 81"
T1_4_2	Addition of the validation: "Validation only for country code (T1_4_1) = 81"
T1_8_2 - T1_8_10	Addition of the validation: "If T1_1_7 = 3 or 5, then the fields T1_8_2 to T1_8_10 are mandatory fields"

Field	Changes
T1_8_9	Improvement of the description: "Gradient used for brake calculation in per mille"
T2_2	Addition of the validation: "T2_2 or T2_3 must be the orderer of the ordered train journey"
T2_3	Addition of the validation: "T2_2 or T2_3 must be the orderer of the ordered train journey"
T3_1	Addition of the validation: "If a vehicle is reported, this field is mandatory."
T3_2	Improvement of the description and validation "for traction unit manipulations in the later train run (not from the handover point), the extended usage codes 91-94 must be used."
T3_6	Addition of the validation: "if usage code (T3_2) = pusher operation (31-36), than this field must be P"
T3_11_4	Addition of the validation: "If no value is specified, the system interprets a traction unit with driver. If an unoccupied traction unit is to be registered, the value 0 must be entered. If usage code (T3_2) =11, 21 or 31, then this field must be 1"
T3_12	Addition of the validation: "if no value is specified, the system interprets a traction unit with reduced suitability. if a traction unit with a reduced suitability should be reported, enter the value "M"."
GT3_13	Addition of the validation "Must be specified for the external train data reports (RU trains)."
GT3_14	Addition of the validation: "Must be specified for the external train data reports (RU trains)."
T3_15	New attribute "Traction unit coupling type"
I1_0	Addition of the validation: "only allowed once per train report."
G1_7	Addition of the description: "if G1_7 will be not reported --> it is equal to 0 - no handbrake"
I1_7_1	Addition of the validation: "If the entire block G1_7 (handbrake) is not sent via interface, this field is interpreted by the system with the value 0."
WLS_7_1	Addition of the description: "value set1 - 99"
I1_7_2	Addition of the description: "in tons"
I1_7_3	Addition of the description: "If no holding force will be reported, the handbrake weight will be used as holding force. if neither of the two values will be reported, holding force will be assumed as 0" Addition of the validation: "If I1_7_1 (type of handbrake) != 0 , then this field is mandatory."

Field	Changes
I1_8_2	Addition of the validation: "For future release: If 8, I1_8_4 must be set."
I1_8_3	Addition of the validation: "If not specified, 0 is interpreted by the system."
I1_10	Data type change: n1 → n2 Extension of the value set: <ul style="list-style-type: none"> • 5 = DAC one-sided; UIC coupling one-sided • 6 = DAC cybrid coupling • 7 = DAC
I1_17	Addition of the validation: "If the value is < 300 cm or >= length over buffer (I1_3), then a warning is issued."
I1_27	Addition of the validation: "if no value is specified, the system interprets 1 vehicle component."
I1_28	Addition of the validation "mandatory if, RU train status 3, 4 or 5 AND passenger wagon on train (e.g.: ROLA escort wagon)"
WL0	Additional validation rule: "must be 0 (empty) , when WL1 = 0 or must be 1 (loaded), if WL1 > 0."
GWLR	Addition of the description: "for use if there is no intermodal traffic, otherwise GULRZ"
GULR	Addition of the description: "in case of intermodal traffic instead of using group GWLR"
GWLS	Becomes a mandatory element
WC6_1	Validation "Validation if WC4_1 = 81 (AT)" ist removed
WC7_4	Additional validation rule: "If the operational destination station (WC4_1) is outside Austria (not equal to 81), then at least one border point with WC7_4 = 81 (i.e. a border crossing from Austria to abroad) must exist. Otherwise a warning is returned."
WC7_5	Additional validation rule: "If WC7_4 = 81, this field is validated, which can lead to a warning."
GUCN	Change in description: "currently not used" deleted, use when RID information is provided at loading unit level
GWLS_1_1	Validation rule "Mandatory if WLS_3 > 0" is removed
WLS_8	Correction of the description: "UIC 920-13 -A.5.2"

Field	Changes
WA_1	Adaptation of the validation rule: "If WA_2 = G or P: max. permitted value = 1.5 times WA_4; If WA_2 = X: 0"
WA_2	Addition of the description:: G = brake position G P = brake position P X = brake not in use (deactivated or unsuitable)