

# TAF/TAP TSI Sector Handbook Change Log

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<b>Version:</b>	<b>2.2.3_2.0</b>
<b>Date:</b>	<b>2019-06-04</b>

## Purpose

**Change Log: Brief overview of the changes from the version 2.1.2\_1.1 to 2.2.3\_2.0.**  
**Important note: the change log is split to XSD related adaptations and Sector Handbook text changes.**

**The XSD related adaptations contain the list of messages that are affected by the particular schema version increment. The messages are listed if their structure was affected. The business rules for usage of the elements in the structure is not explained here. Some elements or codes in the code lists may affect just one business case used by one message, in spite of the usage of the particular element or code in other messages.**

## List of changes in XSD:

### Version 2.1.3 from the 22/12/2015

CRs approved by ERA and JSG:

- SMO 38 sector message: passenger train composition -- association of vehicle list added to global association
- SMO 49 sector message: other technical restrictions for passenger rolling stock simplified
- SMO 35 / ERA 396 Wagon data cardinality changed to /0 to many/from /1 to many/ -- related to TrainCompositionMessage
- SMO 43 / ERA 397 BookedLocationDateTime added to PlannedJourneySection/Timing/TimingAtLocation: **Optional** element added – to be used only in Operations, not in Planning. Affects Path Request, Path Coordination and Path Details, but should only be used by Path Details in Operations.
- SMO 44 / ERA 398 BookedLocationDateTime added to AffectedSection/Start-EndOfSection: **Optional** element added – to be used only in Operations, not in Planning. Affects Path Canceled, Path Not Available, Path Details Refused,

Path Confirmed, Path Section Notification. Will be used by Path Not Available, Path Cancelled and Path Section Notification if needed during Operations.

- Bug Fix: CR 45 / ERA 395 Approved correction of LocationFileDatasetMessage
  - usage of corrected ValidityType without restriction

### **Messages (structure!) affected by 2.1.3:**

Passenger Train Composition Process Message (Sector)

Train Composition Message

Path Request Message

Path Details Message

Path Coordination Message (Sector)

Path Canceled Message

Path Details Refused Message

Path Confirmed Message

Path Not Available Message

Receipt Confirmation

Path Section Notification Message

Location File Dataset Message

### **Version 2.1.4 from the 27/06/2016**

CRs approved by ERA and JSG:

- SMO 16 ERA 357 Public Time Support – TimeQualifierCode (PathRequest/PathDetails) -- TimerQualifierCode moved to code list schema
- SMO 34 ERA 392 "DangerousGoodsIndication in TrainCompositionMessage - TrainRunningData
- SMO 50 ERA 409 (Hand) Brake (Braked) weight values "0" in TrainCompositionMessage -- HandBrakedBrakeWeight type changed from Numeric3--3 to xs:integer with restriction 000 to 999
- SMO 51 ERA 411 Replace Train Control System Code in TrainCompositionMessage with xs:token and annotation. Code list remains in the code list schema to be updated accordingly.

## **Messages (Structure!) affected by 2.1.4:**

Train Composition Message

Path Request Message

Path Details Message

Path Coordination Message (sector)

## **Version 2.1.5 from the 15/12/2016**

CRs approved by ERA and JSG:

- SMO 53 ERA 419 Loco Numbers in Train Composition Message (TCM): the new optional element LocoNumber is added to the LocIdent used in TCM (affected only TCM. New global element LocoNumber added)
- SMO 55 ERA 417 Creation of the code list for the element TractionType: The TractionType is converted to a code list and moved to taf\_cat\_codelists\_sector.xsd. The new codes are:
  - First digit:
    - “0” = not specified
    - “1” = external electric power supply for traction (catenary and pantograph, third rail or other such as maglev)
    - “2” = on-board traction power supply for traction without external electrical or other power supply available
    - “3” = hybrid traction (both on-board or electric traction available)
  - Second digit (definitions in chapter 2.2.2 of the LOC&PAS TSI 1302/2014):
    - “0” = not specified
    - “1” = locomotive or power unit
    - “2” = trainset or multiple unit or railcar
    - “3” = shunter
    - “4” = on track machine or infrastructure inspection vehicle
  - (affected only TCM)
- SMO 57 (Sector CR, nor ERA ID) PathSectionNotification -- added ScheduledDateTimeAtTransferPoint on message level (affected only PathSectionNotificationMessage)
- SMO 59 ERA 418 TrainCompositionMessage: Mistake in HazardIdentificationNumber element resolved: the regular expression with the constraint on the format is removed. (affected only TCM)

## **Messages (Structure!) affected by 2.1.5**

Path Section Notification (Sector)

Train Composition

## Version 2.1.6 from the 08/02/2017

CRs approved by ERA and JSG:

- CR60 ERA 423 CR is mainly renaming and adding the annotation -- affects only RSRD.
  - Elements affected:
    - ....MaxDesignSpeed -- added, replaced MaxSpeedEmpty and
  - MaxSpeedLoaded
    - ....NormalLoadingGauge
    - ....LoadTable
    - ....ParkingBrakeForce
  - Elements deleted (completely removed from the schema!):
    - ....MaxSpeedEmpty
    - ....MaxSpeedLoaded
    - ....MaxParkingBrakeGradient
- CR61 ERA 424 Change of the type of the element MaxAxleWeight -- affects:
  - .....RollingStockDatasetMessage
  - .....TrainCompositionMessage
  - .....PathRequestMessage
  - .....PathDetailsMessage
- CR62 ERA 425 Renaming and annotation improvement -- affects TrainComposition & RSRD
  - Elements affected:
    - ....LengthOverBuffers (replaced WagonLenth -- IMPORTANT for those who already have mapping on TCM)
    - ....ExceptionalGaugingInd (Train Level)
  - Element removed from the message (but remains in the schema) (IMPORTANT for those who already have mapping on TCM!):
    - ....WagonLength
- CR63 (Sector Message PassengerTrainComposition):
  - Redefinition of the type of EuropeanVehicleNumber -- changed from integer to string with restriction and regular expression.
- CR66 ERA 426 Wrong number in the code list (repeated value) -- affects TrainComposition (the change is applied on the code list)
  - Affected code list: TractionMode. Code 44 repeated twice, code 54 must be added instead.
- CR67 ERA 427 Wrong pattern applied -- affects ErrorMessage
  - Error code number format was wrong -- there will be no restrictions on format on the error code any more.
- LengthOverBuffers annotation on DesignDataset level (RSRD message) removed -- this is not needed, since the global annotation (documentation) of the element LengthOverBuffers applies.

### **Messages (Structure!) affected by 2.1.6:**

Rolling Stock Dataset Message

Train Composition Message

Passenger Train Composition Process Message (Sector)

Path Request Message

Path Details Message

Path Coordination Message (Sector)

Error Message

### **Version 2.1.7 from the 18/05/2017**

- CR 70 ERA 433: Error Message Element Multiplicity: all significant elements of the message are packed into one complex element Error which has the 1--n multiplicity. Affected message: ErrorMessage
- CR 71 ERA 434: TypeOfInformationCode 23 added. The code is used for PathNotAvailable message. Indicates that the alternative offer will be prepared by IM. Affected messages: all messages for Path Request process, because they all use the TypeOfInformationCode list. This particular code should be used only for PathNotAvailable and ReceiptConfirmation.
- CR 76 ERA 435: Element name and type changed: MinVerticleRadiusYardHump / Integer 1--9999 became MinVerticalRadiusYardHump / Integer 1--999, measured in meters. Affected message: RSRD.

### **Messages (Structure!) affected by 2.1.7:**

Error Message

Rolling Stock Dataset Message

Path Request Message

Path Details Message

Path Coordination Message (Sector)

Path Canceled Message

Path Details Refused Message

Path Confirmed Message

Path Not Available Message

Receipt Confirmation

Path Section Notification Message

**Changes on Sector Handbook text:**

- For the internal version 2.1.3\_1.2: The disclaimer about TrainID (the sentence about “TrainID is not mandatory...” is deleted) was removed from Application Guide and Sector Handbook, according to the decisions of TEGs and SMO/JSG.
- Path alteration process (chapter 12.8.5). After the review of the sector in June 2017, all references to the “Temporary Capacity Restrictions (TCR)”, the term which is used in the Timetable Redesign (TTR) project, are removed. The references will be added once when the TCR processes are defined in the TTR implementation and linked precisely to TAF/TAP processes.
- Path not available message (chapter 12.11.6)
- Error Message structure explanation (chapters 12.11.8, 12.14.15)
- Explanation for adding the “Operational” elements to Path Details and Path Section Notification message (12.11.9, 12.14.8, 12.14.12)
- Adding of the new codes to the code list for Type Of Information (12.14.17)
- Adding the explanation for the new type of element for Restrictions of the Rolling Stock (TAP Train Preparation, chapter 13.2)
- Added new annexes:
  - o Annex 6.1: Explanation of XSD diagram notation.
  - o Annex 6.2: Export of the XSD “complete” schema to MS Word
  - o Annex 6.3: Export of the XSD “codelist” schema to MS Word
  - o Annex 8.7.1: TrainID test cases: general list with all the details and introductory explanations
  - o Annex 8.7.2: Test cases for Joint Sector Group Pilot Programme for Short Term Path Request and TrainID

## **Version 2.1.8 from the 21/09/2017**

CRs approved by ERA and JSG:

- Error Correction (Affected: PathRequest, PathDetails, PathCoordination, ObjectInfo messages): The TimingQualifierCode list of attributes was accidentally moved to time in the version 2.1.4. It actually belongs to Timing (it was an attribute list of the Timing element in all versions before 2.1.4). To correct the error, we moved the list of attributes TimerQualifierCode back to Timing element.
- CR 82: Update of RU-WagonKeeper communication (GCU Working Party result): new version of WagonPerformanceMessage is provided in the SECTOR schema.

### **Messages (Structure!) affected by 2.1.8:**

Path Request message

Path Details message

Path Coordination message

ObjectInfo message

WagonPerformance message

## **Version 2.2.1 from the 14/06/2018**

CRs approved by ERA and JSG:

- CR 87 / ERA 444: Information on connecting services and their direction should be provided by defining two new type codes “Connecting service to other train” and “Connecting service from other train” (definition according to type codes 0044/0045). Affected element: TrainActivity, description - no functional change.
- CR 88 / ERA 445: DerailmentDetectionDevice element added. New type (enumerated code list) created. CHANGE ON THE CODE LIST: DerailmentDetectionDeviceEnumeration added
- CR 89 / ERA 446: Extension of the NormalLoadingGauge code list.
- CR79 / ERA 443: Add an optional element RequestedCalendar in the PathInformation. This calendar will indicate the dates of the request to which that path is answering. Its value is a subset of the PlannedCalendar which was sent in the PathRequest message. In case the element is not present, the

RequestedCalendar is assumed to be strictly identical to the PlannedCalendar provided in the TrainInformation (no offset). Affected messages: Path Request, Path Details, Path Coordination (sector message). New global element RequestedCalendar is created. It is now the optional element of the PathInformation.

- CR93 : RouteClass code list error fixed: the empty pattern indication is removed.
- CR 86 (sector-only): make TrainInformation and PathInformation in PathCoordinationMessage optional. During the harmonization phase, the messages between RUs contain usually only the TrainInformation. During the path elaboration phase (after path request, before path offer), the IMs usually exchange only PathInformation. Also, during the planning process, the companies indicate their acceptance of the dossier by sending only the TypeOfInformation, where the details of the whole train and / or path are not relevant. Therefore, both TrainInformation and PathInformation may become optional.
- CR85 (sector-only): In the PassengerTrainCompositionProcessMessage, the Lenth (expressed in mm) used in TrainDataPassenger is replaced by TrainLength (expressed in m)
- CR84 (sector-only): Identification of the RollingStockType and the RollingStockIdentification in the PassengersTrainCompositionProcessMessage was provided in the "choice" structure: one could choose only one or another element but not both. The use cases show that there is a need to have both identification elements at the same time. Therefore, the structure "choice" is changed to the structure "sequence". Both elements are set as optional, but the sequence is mandatory.

### **Messages (Structure!) affected by 2.2.1:**

Path Request message

Path Details message

Path Coordination message

### **Version 2.2.2 from the 21/06/2018**

CRs approved by ERA and JSG:

- Alignment with ERA 2.2.2 (implementing ERA CR 439): Fixing the error found in ConsignmentOrderMessage in RouteCode: the wrong pattern was used `\d*(1-9)\d*0`, and it is replaced by the correct one: `\d*[1-9]\d*0`

### **Version 2.2.3 from the 07/12/2018**



CRs approved by ERA and JSG:

- CR: SMO ID 72, ERA ID 453: BitmapDays of calendar used in Path Request related messages changed to 740. Affected messages: all path-request related messages
- CR: SMO ID 95, ERA 459: Correction of value range of element AirBrakedMass. Affected: RSRD messages
- CR: SMO ID 101, ERA ID 460 Identification of Affected Section. Affected messages: PathSectionNotification, PathCancelation, PathConfirmed, PathDetailsRefused
- CR: SMO ID 91, ERA ID 457 ErrorMessage : to add an optional element in ErrorCauseReference tag. Affected: ErrorMessage
- CR: SMO ID 90, ERA ID 456 ReceiptConfirmationMessage : to add an optional element in RelatedReference tag. Affected: ReceiptConfirmationMessage
- CR: SMO ID 73, ERA ID 454 Unified use of the element “ LocoTypeNumber”. IMPORTANT: Fundamental element structure change. Affected: TrainCompositionMessage, PathRequest, PathDetails, PathCoordination, ObjectInfo
- CR: SMO ID 52: (Sector Only): ObjectInfoMessage adaptation with multiple TrainInformation and PathInformation blocks. Affected: ObjectInfoMessage
- CR: SMO ID 119: (Sector Only): Identification of the Rolling Stock in the PassengersTrainCompositionProcessMessage by both the EVN and RollingStockType + RollingStockIdentification. Affected: PassengerTrainCompositionProcessMessage

**Messages (Structure!) affected by 2.2.3:**

Path Section Notification message

Path Cancelation message

Path Confirmed message

Path Details Refused message

Error message

Receipt Confirmation message

Train Composition message

Path Request message

Path Details message

Path Coordination message

ObjectInfo message

### **Changes on Sector Handbook text:**

- 7.1 Definition of roles is added with the definition of the Lead RU, Responsible Applicant, Responsible RU. In further chapters, especially in planning, the Responsible RU is replaced with Responsible Applicant accordingly either in the core text or in the figures, diagrams.
- High level overview of the processes is moved to chapter 7.2
- As pre-arranged paths have a special process according to 913/2010, the corresponding lines from chapter 8.2.3.2 Path and also from 12.11.2 Message 'Path Details' are removed.
- An example is added to chapter 8.2.4.6 Timetable Year for better understanding of the special use case when the train or path crosses timetable periods due to midnight crossing
- 9.4.1 Roles in Regular Operation is updated
- Based on the definition from the Reference Files WG, in chapter 9.7.3 Location Description, the Definition of a Primary Location and Definition of a Subsidiary Location are updated.
- 9.7.6 Availability of locations in CRD and 9.7.7 General rules for updates of locations in CRD are added
- Chapter 12. is renamed from Short-Term Path Request to Path Request, according to the general agreement within the Sector to use TAF TAP messages/framework for the Path Request process, including also annual timetable
- 12.2 Assumptions are updated as TAF and TAP apply both to interoperable traffic and domestic traffic
- New diagrams are added to 12.5.1 High level Overview of the Process:
  - o Process short-term path request with declaration of pre-accepted offer – sequence of the messages (harmonization phases are not included)
  - o Process short-term path request - sequence of messages (harmonization phases are not included)
  - o Process path request (annual timetable) – sequence of messages (harmonization phases are not included)
- New process diagram is added to 12.8.4 Process «Path cancellation by RA»
- New process diagram is added to 12.8.5 Process «Path alteration by IM». New TypeOfInformation codes are added to the text according to the process diagram.

- New process diagrams are added to 12.8.6 Process «Path modification by RA» (with or without pre-accepted offer). Text is updated according to the new process diagram.
- 12.9.1 Identification of the train is updated, focusing on the Path Request ID. After a path is booked, any request for Path Modification by the RA (planning or operation) must use a new PathRequest Identifier.
- 12.9.3 Related Trains as Part of Train Activity is updated with the new Train activity types Connecting service to other train” (0044)/”Connecting service from other train” (0045)
- Train Information is updated in 12.10.2 Structure of the Message. Proper definitions of the Reference Point and Calendar are added helping the understanding of the offsets. On Demand Paths chapter is updated as its usage is optional and according to national rules.
- Affected Section is updated according to a recent change request. Optionally BookedLocationTime (planning) or BookedLocationDateTime (operation) can be used to avoid ambiguity especially in special cases like Y or loop train runs. Similar update is added to 12.14.12 Use of Affected Section.
- 12.11.1 Message 'Path Request' is updated and specified that Path Request with status 'deletion' or 'modification' can be used only until the IM has sent a PathDetails message.
- 12.11.4 Message 'Path Details Refused' and 12.11.5 Message 'Path Cancelled' are updated additional options are removed with status 'modification'. The reason is that these messages refer to a Path Details message and is only sent once as response. So, the message status 'modification' is not allowed.
- 12.11.6 Message 'Path Not Available' is extended with the TypeOfInformation 23. It means that a Path Details message will follow.
- 12.11.10 Message 'Receipt Confirmation' is updated according to the change request with a new element RelatedSenderReference.
- 2. Subcase is removed from 12.13.3 Splitting of a train
- Recommendation is added to 12.13.5 Trains with different routes on specific days. In RA – IM communication it is recommended to use the RelatedPlannedTransportIdentifier (with specific reason) to indicate that the RA wishes to get the same route and details for both Path Requests.
- Recommendation is added to 12.13.6 Change of a booked train for certain days (e.g. planned re-routing). In IM – RA communication it is recommended to send the PathNotAvailable message for the whole path in IM territory.
- 12.13.8 Trains that cannot leave before another train has arrived (diagram dependence) is detailed now with explanation for both trains: first train A to F and second train F to A.
- 12.14.2 Loco Type Number is updated according to the recent change request and the new structure is added to the text.
- 12.14.15 Use of the Error Message is updated according to the change request with a new element MessageSenderReference

- 12.14.16 Type of Request is extended with additional explanation of the processes: study, request, modification with an indication of the messages starting and closing the processes.
- Definition of the validity period and its first/last value are updated in 12.15.1 Overview of the Calendar
- 12.18 Re-planning, a clear definition is added to indicate when the planning is finished: after a final offer has been accepted by the RA and PathDetails has been sent by IM with status “booked”.
- “Last message wins” rule is detailed in 21. Data quality, relying on the MessageHeader time stamp.