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The Trans-European Conventional Rail System

**“TELEMATIC APPLICATIONS”
subsystem for Freight Services**

**THE TRAIN PATH DATA
AND
DESCRIPTION**

AEIF_TAF_PatData_V10_040622-EN.doc

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History

ED	Date	Author	Change Reason
1.0	22.06.2004	R.Berger	Takeover from Annex Draft TAF TSI as autonomous AEIF document

Intended Audience

This document is one of the references to be used by designers and engineers responsible for the proper implementation of the TAF TSI requirements regarding message exchange according chapter 4.2 of the CR TSI Telematic Applications for Freight Services.

Evolution of this Document

Distribution:

Any new version of the document incorporated in any new version of annex E of the TAF TSI approved by the EC in accordance of the procedure set out in Article 21(2) of the Directive 2001/16/EC shall be distributed to:

AEIF	AEIF SSG Telematic Applications	Brussels
EC	DGTREN	Brussels
European Railway Agency	As soon as it will be created	Valenciennes

The document shall be distributed by e-mail in MS-Word format or in PDF Format and published on the AEIF Web-site www.aeif.org.

Configuration Management:

Any change requests on the content of this document shall be reported to the TAF TSI responsible member at AEIF and at the European Railway Agency.

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0. Introduction

0.1. Purpose

This document is the more detailed description of the train path data used within the train path request dialogue as defined in the TAF TSI. The names of the data elements may be changed during the detailed planning and implementation of the metadata for the central repository. During this phase also the final structure of the elements and the databases must be fixed.

0.2. References

0.2.1. Standards and Guidelines

Id	Title	Doc ID, Edition	Date	Author / Publisher
1	On the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification	Directive 2001/14/EC	26/02/01	EC
2	On the interoperability of the Trans-European conventional rail system	Directive 2001/16/EC	19/03/01	EC

0.2.2. Other References

Id	Title	Doc ID, Edition	Date	Author / Publisher
1	Conventional Rail TSI Telematic Applications for Freight	TAF_TSI_V20_document_22-06-2004.doc Version 2.0	22/06/04	AEIF
2	CR Telematic Applications for freight: Data Definitions and Messages	AEIF_TAF_MesData_V10_040322.doc Version 1.0	22/03/04	AEIF
3	CR Telematic Applications for freight: Glossary (English)	AEIF_TAF_Glossary_V10_040622.doc Version 1.0	22/06/04	AEIF

1. : Train path data and description

1.1. Description of the data to be stored

Data Stored	Description	Elements
Train path	Defines the Requested, Accepted and Actual data to be stored concerning the path of a train and the formation of the train for each segment of that journey.	<ul style="list-style-type: none"> • Path Identity • Additional Path ID Data • Accepted Journey Section • Actual Journey Section • Train Composition Journey Section

Data Structure	Description	Elements
Path Identity	Identifies a train path. A path could be either planned usage of capacity along a route section, or the actual routing of a train along specified line within a route. The exact nature depends upon the processes in use within an IM.	<ul style="list-style-type: none"> • Path Departure Point • Path Departure Date/Time • Path Destination Point • Path Destination Arrival Date/Time
Additional Path ID Data		<ul style="list-style-type: none"> • Path Number • Train Id • RU Id
Accepted Journey Section	Defines the data provided by the IM for each accepted journey section - from the start to the first intermediate stop, between intermediate stops and from the final intermediate stop to the end of the accepted journey.	<ul style="list-style-type: none"> • Intermediate Destination • Intermediate arrival Date/Time • Intermediate departure Date/Time • Train Weight • Train Length • Activity Code • Available Equipment • Max Speed • Recovery Time • Max Axle Weight • Max Weight per meter • Exceptional gauging • Dangerous goods • Braking System • Responsible RU • Responsible IM • Next Responsible RU • Next Responsible IM

Data Structure	Description	Elements
Actual Journey Section	Defines the actual performance data for each accepted journey section - from the start to the first intermediate stop, between intermediate stops and from the final intermediate stop to the end of the accepted journey.	<ul style="list-style-type: none"> • Intermediate Destination • Intermediate arrival Date/Time • Intermediate departure Date/Time • Train Weight • Train Length • Activity Code • Available Equipment • Max Speed • Recovery Time • Max Axle Weight • Max Weight per meter • Exceptional gauging • Dangerous goods • Braking System • Responsible RU • Responsible IM • Next Responsible RU • Next Responsible IM • Delay Reason Code
Train Composition Journey Section	Defines the make up of the train for each section of its journey.	<ul style="list-style-type: none"> • Loco Id • Available Equipment • Train Length • Train Weight • Vehicle Id • Train Sequence • Max Speed • Braking System • Max Axle Weight • Max Weight per meter • Exceptional gauging • Dangerous goods • Livestock On Board

1.2. Additional elements

Data Structure	Description	Elements
Available Equipment	Describes the equipment to be carried by the train; this must be compatible with the infrastructure to enable traction, control and communications from the train to IM control.	<ul style="list-style-type: none"> • Traction Type • Command and Control System • On Board Radio Equipment
Requested Journey Section	Defines the data to be provided by the RU for each proposed journey section - from the start to the first intermediate stop, between intermediate stops and from the final intermediate stop to the end of the proposed journey.	<ul style="list-style-type: none"> • Intermediate Destination • Intermediate arrival Date/Time • Intermediate departure Date/Time • Train Weight • Train Length • Activity Code • Available Equipment • Max Speed • Recovery Time • Max Axle Weight • Max Weight per meter • Exceptional gauging • Dangerous goods • Braking System • Responsible RU • Responsible IM • Next Responsible RU • Next Responsible IM

1.3. List and Description of the data elements

Name	Description
Activity Code	Defines activity to be undertaken at intermediate point on route.
Braking System	Braking System to be used.
Clear Text Message	Used to send clear text as part of a message.
Command and Control System	Defines the type of the Command and Control system required by the train e.g. TPWS, ERTMS-2 etc.
Control Contact Id	Provide the Control contact identity for all ship to shore communications.
Dangerous goods	UN Numbers relating to any dangerous goods.
Delay Reason Code	Code that defines the reason for a train not arriving at a prescribed timing point at he planned time.
Exceptional gauging	Information concerning exceptional gauging over the route section.
IM Id	Unique Identity of Infrastructure Manager.
Intermediate arrival Date/Time	Date and Time at which proposed train is due to arrive at intermediate point.
Intermediate departure Date/Time	Date and Time that train is due to depart from intermediate point. Null entry indicates that it will not stop at this point.
Intermediate Destination	Intermediate stops or other designated points along the proposed path.
Livestock On Board	Indicates that livestock and people (other than the train crew) will be carried.
Loco Id	Unique Identity of traction Unit.
Max Axle Weight	Maximum Axle Weight of the wagons in the train.
Max Speed	Max Speed of train over route section.
Max Weight per meter	Maximum Weight per meter of the train.
Message Confirmation	Indicates that the recipient has received the message and will act upon it as necessary.
Message Id	Unique identity of the message.
Next Responsible IM	Identifies IM responsible for the train for the Next journey segment.

Name	Description
Next Responsible RU	Identifies RU responsible for the train for the next journey segment.
On Board Radio Equipment	Defines the type of radio equipment that will be on the train.
Path Conf Ind	Indicates that the RU has accepted the proposed path.
Path Departure Date	Date for which path is requested.
Path Departure Point	Place from where proposed train will depart.
Path Departure Time	Time for which path is requested.
Path Destination Arrival Time	Time at which proposed train is due to arrive at its destination.
Path Destination Point	Destination of Train for requested path.
Path Not Available Ind	Indicates that the requested path is not available.
Recovery Time	Additional route section running time to allow for recovery, If a train delay exceeds this limit, the RU must be informed by the IM.
Ref Message ID	Identity of message to which this message refers.
Resource Available Ind	Indicates that an RU can from the required logistics for a train.
Resource not available Ind	Indicates that resource is not available for the proposed train.
Responsible IM	Identifies IM responsible for the train for the current journey segment.
Responsible RU	Identifies RU responsible for the train for the current journey segment.
RU Id	Unique Identity of Railway Undertaking.
Track Id	Informs the RU of which track id on which the train will run.
Traction Type	Denotes type of traction to be use - OLE, Diesel, third rail etc.
Train Accepted Ind	Indicates that the IM has accepted the train composition as being suitable for the agreed path.
Train at Start	Time train actually started journey.
Train Contact Id	Contact identity of the train to be used for all ship to shore communications with the train.

Name	Description
Train Id	IM allocated code to identify path occupancy per route section.
Train Journey Start Time	Informs the RU of the precise time at which the train should present itself at the network.
Train Length	Length of Train in metres.
Train Not Suitable Ind	Indicates that the train does not match the allocated path and therefore may not run.
Train Path Cancel Ind	Indicates that the train path is cancelled.
Train Ready Ind	Indicates that the train has been prepared and is ready to run and is now requesting details of when and where it should present itself upon the network.
Train Sequence	Defines position of loco or vehicle in train. 1 is first etc.
Train Weight	Weight of Train in Tonnes.
Vehicle Id	Unique identity of a vehicle.

END OF DOCUMENT