Train — exists — has train state — exists — Train state

rst_typ:Wagon

Wagon

exists

uic wagon number

exists

xsd:string

Intermodal Transport Unit

Trailer

Swap body

Container

exists

has BIC code

exists

xsd:string

exists

size and type code

exists

xsd:string

Track

exists

has designation

exists

xsd:string

dul:isClassifiedBy

has facility function

exists

exists

skos:Concept

skos:inScheme

skos:ConceptScheme

Facility

Facility role or function

dul:playsRole

plays facility role

exists

exists

Workshop

Yard

Facility role or function scheme

Traction provision role

Locomotive role

locomotive role

leading locomotive role

controlled locomotive role

dul:playsRole

plays operational role

exists

exists

dul:Organization

Operational role

Train operator

Cargo carrier

Lead carrier

prov:Entity

dul:Description

prov:generatedAtTime

created at

exists

exists

xsd:dateTimeS
ta...

effective from

exists

exists

xsd:dateTimeS
ta...

prov:invalidatedAtTime

effective until

exists

exists

xsd:dateTimeS
ta...

Versioned description

prov:wasRevisionOf

previous description version

next description version

exists

exists

inv

revises description version

bag:hasItem

list:List

has journey section

exists

Journey schedule

exists

has origin

exists

Operational location

exists

has departure time

exists

xsd:time

exists

has destination

exists

Operational location

exists

has arrival time

exists

xsd:time

exists

list:ListItem

Journey section

list:nextItem

in journey schedule

next section

exists

Journey section

exists

Journey section

inv

has journey section

list:previousItem

previous section

exists

Journey section

exists

Journey section

Train state

Train motion state — exists — is stationary — exists — xsd:boolean

Train mass state — exists — has mass in tons — exists — xsd:decimal

Train composition state — exists — has composition — exists — rst_typ:RollingStock

prov:wasAttributedTo

exists

prov:Entity

exists   prov:generatedAtTime

exists   reported at   exists

Message

xsd:dateTimeS ta…

exists   has full text   exists

xsd:string

exists   has comment   exists

xsd:string

TAF message

Transport collaboration message

exists   message ID   exists

xsd:string

exists   message version   exists

xsd:string

exists   has source   exists

xsd:string

exists   has reference object   exists

Train run   Intermodal Transport Unit   Wagon

exists   has payload   exists

Operational state

```
┌─────────────────────┐
│   dul:TimeInterval  │
└─────────────────────┘
           ▲
           │
           │
┌─────────────────────┐
│    time:Interval    │
└─────────────────────┘
```

PREFIX	IRI
bag	http://www.ontologydesignpatterns.org/cp/owl/bag.owl#
dul	http://www.ontologydesignpatterns.org/ont/dul/DUL.owl#
list	http://www.ontologydesignpatterns.org/cp/owl/list.owl#
owl	http://www.w3.org/2002/07/owl#
prov	http://www.w3.org/ns/prov#
rdf	http://www.w3.org/1999/02/22-rdf-syntax-ns#
rdfs	http://www.w3.org/2000/01/rdf-schema#
rst_cons	http://cdm.ovh/rsm/rolling_stock/consist/RollingStockConsist#
rst_typ	http://cdm.ovh/rsm/rolling_stock/typology/typology#
skos	http://www.w3.org/2004/02/skos/core#
taf	http://data.europa.eu/949/
tafp5	https://cdm.ovh/taf/tafp5#
time	http://www.w3.org/2006/time#
xml	http://www.w3.org/XML/1998/namespace
xsd	http://www.w3.org/2001/XMLSchema#

ENTITY	FUNCT	INVERSE FUNCT	TRANS	REFL	IRREFL	SYMM	ASYMM
http://www.ontologydesignpatterns.org/cp/owl/bag.owl#hasItem							
http://www.ontologydesignpatterns.org/cp/owl/list.owl#nextItem							
http://www.ontologydesignpatterns.org/cp/owl/list.owl#previousItem							
http://www.ontologydesignpatterns.org/ont/dul/DUL.owl#hasLocation							
http://www.ontologydesignpatterns.org/ont/dul/DUL.owl#hasTimeInterval							
http://www.ontologydesignpatterns.org/ont/dul/DUL.owl#isClassifiedBy							
http://www.ontologydesignpatterns.org/ont/dul/DUL.owl#isLocationOf							
http://www.ontologydesignpatterns.org/ont/dul/DUL.owl#isSettingFor							
http://www.ontologydesignpatterns.org/ont/dul/DUL.owl#playsRole							
http://www.ontologydesignpatterns.org/ont/dul/DUL.owl#realizes							
http://www.w3.org/2004/02/skos/core#inScheme							
http://www.w3.org/2006/time#inXSDDateTime							
http://www.w3.org/ns/prov#generatedAtTime							
http://www.w3.org/ns/prov#invalidatedAtTime							
http://www.w3.org/ns/prov#wasAttributedTo							
ENTITY	FUNCT	INVERSE FUNCT	TRANS	REFL	IRREFL	SYMM	ASYMM

ENTITY	FUNCT	INVERSE FUNCT	TRANS	REFL	IRREFL	SYMM	ASYMM
https://cdm.ovh/taf/tafp5#hasComment							
https://cdm.ovh/taf/tafp5#hasComposition	✓						
https://cdm.ovh/taf/tafp5#hasDepartureTime	✓						
https://cdm.ovh/taf/tafp5#hasDesignation							
https://cdm.ovh/taf/tafp5#hasDestination	✓						
https://cdm.ovh/taf/tafp5#hasFacilityFunction							
https://cdm.ovh/taf/tafp5#hasFullText	✓						
https://cdm.ovh/taf/tafp5#hasJourney							
https://cdm.ovh/taf/tafp5#hasJourneySchedule							
https://cdm.ovh/taf/tafp5#hasJourneySection		✓					
https://cdm.ovh/taf/tafp5#hasMassInTons	✓						
https://cdm.ovh/taf/tafp5#hasOTN							
https://cdm.ovh/taf/tafp5#hasOrigin	✓						
https://cdm.ovh/taf/tafp5#hasPayload							
https://cdm.ovh/taf/tafp5#hasPrimaryCode	✓						
https://cdm.ovh/taf/tafp5#hasReferenceObject							
https://cdm.ovh/taf/tafp5#hasSubsidiaryCode	✓						
https://cdm.ovh/taf/tafp5#hasTimeExtent							
https://cdm.ovh/taf/tafp5#hasTrain	✓						
https://cdm.ovh/taf/tafp5#hasTrainRunState		✓					
https://cdm.ovh/taf/tafp5#hasTrainState		✓					
ENTITY	FUNCT	INVERSE FUNCT	TRANS	REFL	IRREFL	SYMM	ASYMM

ENTITY	FUNCT	INVERSE FUNCT	TRANS	REFL	IRREFL	SYMM	ASYMM
https://cdm.ovh/taf/tafp5#isStateOfTrainRun	✓						
https://cdm.ovh/taf/tafp5#isStationary	✓						
https://cdm.ovh/taf/tafp5#locationName							
https://cdm.ovh/taf/tafp5#messageID	✓						
https://cdm.ovh/taf/tafp5#messageVersion							
https://cdm.ovh/taf/tafp5#nextDescriptionVersion	✓	✓					
https://cdm.ovh/taf/tafp5#nextSection	✓	✓					
https://cdm.ovh/taf/tafp5#playsFacilityRole							
https://cdm.ovh/taf/tafp5#playsOperationalRole							
https://cdm.ovh/taf/tafp5#previousDescriptionVersion	✓	✓					
https://cdm.ovh/taf/tafp5#previousSection	✓	✓					
https://cdm.ovh/taf/tafp5#realizesPlannedJourneyOrPath							
https://cdm.ovh/taf/tafp5#referenceOTN	✓						
https://cdm.ovh/taf/tafp5#reportedAt	✓						
https://cdm.ovh/taf/tafp5#reportedBy	✓						
https://cdm.ovh/taf/tafp5#revisesDescriptionVersion							✓
https://cdm.ovh/taf/tafp5#sizeAndTypeCode	✓						
https://cdm.ovh/taf/tafp5#trainDepartureDate	✓						
https://cdm.ovh/taf/tafp5#trainOperatingRU	✓						
https://cdm.ovh/taf/tafp5#uicWagonNumber	✓						