OntoDiff: era262 vs era121

==== === === [ OntoRail Diff ] === === ====
 • target: era262 (http://ontorail.org/src/ERA/era262/)
 • versus: era121 (http://ontorail.org/src/ERA/era121/)
 • entity types considered: ['Object', 'ObjectProperty', 'DatatypeProperty']
 • performed: 2023-02-17 13:48:47 +0000
 • duration: 1.8 sec
 • OntoDiff version date: 2023-02-17 12:04:28
 • Ignored predicates: xmi:ea\_localid, xmi:lowerValue\_\_id, xmi:upperValue\_\_id, xmi:source\_\_isNavigable, xmi:coords\_\_ordered, xmi:coords\_\_scale, xmi:containment\_\_position, xmi:virtualInheritance, xmi:target\_\_isNavigable, xmi:source\_\_idref, xmi:target\_\_idref, xmi:type\_\_idref, xmi:labels\_\_rb, xmi:type, xmi:visibility, xmi:isUnique, xmi:upperValue\_\_type, xmi:isDerived, xmi:isDerivedUnion, xmi:isOrdered, xmi:isReadOnly, xmi:isStatic
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# Summary

## Object entities

### 40 Object in era262:

Certificate, "Contact Line System", "ERA Feature", "ETCS Level", "Freight Terminal", "Gradient Curve", "Infrastructure manager", "Infrastructure object", Junction, "Line Reference", Loop, Manufacturer, "National Railway Line", "National railway profile", "Net Element", "Net Relation", "Operational Point", Platform, RootObject, "Safe area", "Section Of Line", Siding, Signal, "Special area or location", "Speed Section", "Spot Location", Station, "Stopping Place", Switch, "Topological Object", Track, "Train Detection System", Tunnel, Vehicle, "Vehicle Keeper", "Vehicle Type", border, "linear location", "over crossing", "principal location"

### 31 Object NEW from era121:

Certificate, "Contact Line System", "ERA Feature", "ETCS Level", "Freight Terminal", "Gradient Curve", "Infrastructure manager", "Infrastructure object", Junction, Loop, "National Railway Line", "National railway profile", "Net Element", "Net Relation", Platform, "Safe area", "Section Of Line", Siding, Signal, "Special area or location", "Speed Section", "Spot Location", Station, "Stopping Place", Switch, "Topological Object", "Train Detection System", border, "linear location", "over crossing", "principal location"

### 5 Object REMOVED from era121:

"Internal Node Link", "Line National Id", "Micro Link", "Micro Node", "Node Port"

### 6 Object MODIFIED from era121:

Manufacturer, "Operational Point", Track, Tunnel, "Vehicle Keeper", "Vehicle Type"

## ObjectProperty entities

### 117 ObjectProperty in era262:

"Accepted TSI compliant pantograph heads", "Accepted other pantograph heads", "Advised required number of active GSM-R mobiles (EDOR) or simultaneous communication session on-board for ETCS Level 2 (or level 3) needed to perform radio block centre handovers without having an operational disruption", "Category of line", "ETCS M\_version", "ETCS baseline", "ETCS equipment level", "ETCS infill installed lineside", "ETCS level for degraded situation", "ETCS level type", "ETCS system compatibility", "End of tunnel", "Energy supply system", "Existence and TSI compliance of limits in harmonics in the traction current of vehicles", "Existence and TSI compliance of rules for magnetic fields emitted by a vehicle", "Fire category of rolling stock required", "GSM-R networks covered by a roaming agreement", "GSM-R radio data communication", "GSM-R version", Gauging, "Height of platform", "Load Capability", "Maximum amount of sand", "Minimum axle load by vehicle category", "National line identification", "Nature of Section of Line", "Nominal track gauge", "Normal running direction", "Operational Point at end of Section of Line", "Operational Point at start of Section of Line", "Optional GSM-R functions", "Other radio systems installed (Radio Legacy Systems)", "Other train protection, control and warning systems for degraded situation", "Part of a Railway freight corridor", "Permitted contact strip material", "Radio system compatibility data", "Radio system compatibility voice", "Rail inclination", "Railway location of Operational point", "Section with train detection limitation, only for the French network", "Standard combined transport profile number for semi-trailers", "Standard combined transport profile number for swap bodies", "Start of tunnel", "TEN classification (of track, of platform, of siding)", "TSI Compliance of rules on sand characteristics", "TSI compliance of Ferromagnetic characteristics of wheel material required", "TSI compliance of maximum permitted distance between two consecutive axles", "TSI compliance of maximum permitted impedance between opposite wheels of a wheelset", "TSI compliance of rules for metal-free space around wheels", "TSI compliance of rules for vehicle metal construction", "TSI compliance of rules on combination of RST characteristics influencing shunting impedance", "TSI compliance of rules on shunt assisting devices", "TSI compliance of rules on the use of composite brake blocks", "TSI compliance of sanding", "T\_NVCONTACT reaction", "Train protection legacy system", "Type of contact line system", "Type of operational point", "Type of track circuits to which specific checks are needed", "Type of train detection system", "Use of eddy current brakes", "Use of magnetic brakes", "appearance lineside distance indication", "authorized country", "axle bearing condition monitoring", certificate, "contact line system", "data GSM-R network", "element A", "element B", "element part", "end coupling type", "etcs level", "etcs transmitted track conditions", "fire safety category", "has abstraction", "has implementation", "has signal", "hot axle box detector direction", "in country", "infrastructure manager", manufacturer, "manufacturing country", "national railway profile", navigability, "net element", "net element reference", "not applicable", "not yet available", "open street map class", "operating language", "operational regime type", "operational restriction", "parking brake type", "part of", "passes through tunnel", platform, "position on A", "position on B", "previous vehicle type", "quieter route exempted country", "reasons ETCS radio block center reject", siding, "signal type", "snow ice hail conditions", "special area or location type", "supported platform height", "thermal capacity TSI reference", track, "train detection system", "type version id", "vehicle category", "vehicle keeper", "vehicle subcategory", "vehicle type", "voice GSM-R network", "wheelset gauge changeover facility"

### 71 ObjectProperty NEW from era121:

"Accepted TSI compliant pantograph heads", "Accepted other pantograph heads", "Advised required number of active GSM-R mobiles (EDOR) or simultaneous communication session on-board for ETCS Level 2 (or level 3) needed to perform radio block centre handovers without having an operational disruption", "Category of line", "ETCS M\_version", "ETCS baseline", "ETCS equipment level", "ETCS infill installed lineside", "ETCS level for degraded situation", "ETCS level type", "Existence and TSI compliance of limits in harmonics in the traction current of vehicles", "Existence and TSI compliance of rules for magnetic fields emitted by a vehicle", "GSM-R radio data communication", "GSM-R version", "Maximum amount of sand", "Minimum axle load by vehicle category", "Nature of Section of Line", "Normal running direction", "Operational Point at end of Section of Line", "Operational Point at start of Section of Line", "Optional GSM-R functions", "Other train protection, control and warning systems for degraded situation", "Part of a Railway freight corridor", "Standard combined transport profile number for semi-trailers", "Standard combined transport profile number for swap bodies", "TEN classification (of track, of platform, of siding)", "TSI Compliance of rules on sand characteristics", "TSI compliance of Ferromagnetic characteristics of wheel material required", "TSI compliance of maximum permitted distance between two consecutive axles", "TSI compliance of maximum permitted impedance between opposite wheels of a wheelset", "TSI compliance of rules for metal-free space around wheels", "TSI compliance of rules for vehicle metal construction", "TSI compliance of rules on combination of RST characteristics influencing shunting impedance", "TSI compliance of rules on shunt assisting devices", "TSI compliance of rules on the use of composite brake blocks", "TSI compliance of sanding", "T\_NVCONTACT reaction", "Type of contact line system", "Type of train detection system", "appearance lineside distance indication", certificate, "element A", "element B", "element part", "end coupling type", "etcs level", "etcs transmitted track conditions", "has signal", "infrastructure manager", "national railway profile", navigability, "net element", "net element reference", "not applicable", "not yet available", "open street map class", "operating language", "operational regime type", "parking brake type", "part of", platform, "position on A", "position on B", "previous vehicle type", "reasons ETCS radio block center reject", siding, "signal type", "special area or location type", "supported platform height", track, "type version id"

### 5 ObjectProperty REMOVED from era121:

"belongs to node", "end port", "has track", "start port", "tsi pantograph head"

### 43 ObjectProperty MODIFIED from era121:

"ETCS system compatibility", "End of tunnel", "Energy supply system", "Fire category of rolling stock required", "GSM-R networks covered by a roaming agreement", Gauging, "Height of platform", "Load Capability", "National line identification", "Nominal track gauge", "Other radio systems installed (Radio Legacy Systems)", "Permitted contact strip material", "Radio system compatibility data", "Radio system compatibility voice", "Rail inclination", "Railway location of Operational point", "Section with train detection limitation, only for the French network", "Start of tunnel", "Train protection legacy system", "Type of operational point", "Type of track circuits to which specific checks are needed", "Use of eddy current brakes", "Use of magnetic brakes", "authorized country", "axle bearing condition monitoring", "contact line system", "data GSM-R network", "fire safety category", "has abstraction", "has implementation", "hot axle box detector direction", "in country", "manufacturing country", "operational restriction", "passes through tunnel", "quieter route exempted country", "snow ice hail conditions", "thermal capacity TSI reference", "train detection system", "vehicle category", "vehicle subcategory", "voice GSM-R network", "wheelset gauge changeover facility"

## DatatypeProperty entities

### 255 DatatypeProperty in era262:

"Acceleration allowed at level crossing", "Additional information on network characteristics", "Areas of use of the platform boarding aid", "Automatic dropping device required", "Availability by the IM of additional information", "Belonging to a quieter route", "Cant deficiency", "Compliance of structures with the High Speed Load Model (HSLM) dynamic load model", "Compliance of the tunnel with INF TSI", "Contact force permitted", "Cross section area", "Current or power limitation on board required", "Details on roaming to public networks", "Diesel or other thermal traction allowed", "Distance between signboard and phase separation ending", "Document with the conditions for the use of eddy current brakes", "Document with the conditions for the use of magnetic brakes", "Document with the procedure(s) for static and dynamic route compatibility checks", "Document with the procedure(s) related to the type of track circuits declared in 1.1.1.3.7.1.2", "Document with the transversal section of the particular points requiring specific checks", "Documents available by the IM relating to braking performance", "EC declaration of verification for track (CCS)", "EC declaration of verification for track (ENE)", "EC declaration of verification for track/siding [INF]", "EC declaration of verification for tunnel (SRT)", "EI declaration of demonstration for track (ENE)", "EI declaration of demonstration for track/siding [INF]", "EI declaration of demonstration for tunnel (SRT)", "ETCS data communication application", "ETCS implements level crossing procedure", "ETCS infill necessary for line access", "ETCS national applications", "ETCS national packet 44 application implemented", "ETCS on-board implementation", "ETCS optional functions", "ETCS transmits track conditions", "Energy supply system TSI compliant", "Entry of Driver ID permitted while running", "Existence of ballast", "Existence of electric shore supply", "Existence of emergency plan", "Existence of external cleaning facilities", "Existence of level crossings", "Existence of operating restrictions or conditions", "Existence of other train protection, control and warning systems installed", "Existence of platform assistance for starting train", "Existence of refuelling", "Existence of roaming to public networks", "Existence of rules and restrictions of a strictly local nature.", "Existence of rules on on-board flange lubrication", "Existence of sand restocking", "Existence of severe climatic conditions", "Existence of switch over between different protection, control and warning systems while running", "Existence of switch over between different radio systems", "Existence of toilet discharge", "Existence of trackside hot axle box detector (HABD)", "Existence of train detection system fully compliant with the TSI", "Existence of water restocking", "GPRS for ETCS", "GPRS implementation area", "GSM-R sets in driving cab", "GSMR constraints operate only in circuit-switch", "GSMR forced deregistration functional number", "Generation of trackside HABD", "Gradient for stabling tracks", "Gradient profile", "IM's code", "Identification of siding", "Identification of track", "Identification of trackside HABD", "Indication whether tilting functions are supported by ETCS", "Information on phase separation", "Information on system separation", "Length (of Section of Line, of Tunnel, of Siding, Usable lenght of Platform)", "Maximal time without new “safe” message", "Maximum altitude", "Maximum braking distance requested", "Maximum contact wire height", "Maximum current at standstill per pantograph", "Maximum distance between end of train and first axle", "Maximum distance for overriding the train trip ", "Maximum distance for reversing in Post Trip mode", "Maximum permitted distance between two consecutive axles in case of TSI non-compliance", "Maximum permitted height of the flange", "Maximum permitted impedance between opposite wheels of a wheelset when not TSI compliant", "Maximum permitted speed", "Maximum time for overriding the train trip", "Maximum train current", "Maximum train deceleration", "Minimum contact wire height", "Minimum permitted axle load", "Minimum permitted distance between first and last axle", "Minimum permitted distance between two consecutive axles", "Minimum permitted height of the flange", "Minimum permitted thickness of the flange", "Minimum permitted wheel diameter", "Minimum permitted width of the rim", "Minimum radius of horizontal curve", "Minimum wheel diameter for fixed obtuse crossings", "Name of Operational point", "National classification for load capability", "National fire category of rolling stock required", "Need for more than one train protection, control and warning system required on board", "No GSM-R coverage", "OP TAF/TAP primary code", "Override speed limit to be supervised when the “override” function is active", "Permission for regenerative braking", "Phase separation", "Qualifier Emergency Brake Release ", "Qualifier for the modification of trackside adhesion factor by driver", "Railway location of particular points requiring specific checks", "Railway location of structures requiring specific checks", "Railway location of trackside HABD", "Reference of the documents regarding the rules or restrictions of a strictly local nature available by the IM", "Reference to a document available from the IM with precise description of the tunnel", "Requirements for number of raised pantographs and spacing between them, at the given speed", "Roll away distance limit ", "Sanding override by driver required", "Specific information", "Speed limit allowing the driver to select the “override” function ", "Steady red lights required", "System separation", "TEN GIS identity", "TSI compliance of in service values for switches and crossings", "Temperature range (maximum)", "Temperature range (minimum)", "Trackside HABD TSI compliant", "Train integrity confirmation from on-board necessary for line access", "Tunnel identification", "Type of track gauge changeover facility", "Umax2 for lines referred to in sections 7.4.2.2.1 and 7.4.2.11.1 of Regulation (EU)1301/2014.", "Unique OP ID", "Use of flange lubrication forbidden", "Use of group 555", "alternative name", "altitude range", "altitude range detail", "axle spacing", "boarding aids", "brake weight percentage", "cant defficiency", "catenary max rated current", "composite brake block retrofitted", "conditional regenerative brake", "conditions applied regenerative braking", "conditions switch class B systems", "conditions switch train protection systems", "conditions train formation", "currently valid", "dangerous goods tank code", "design mass in working order", "design mass under exceptional payload", "design mass under normal payload", "driving cabs", "eddy current brake prevention", "emergency braking", "end intrinsic coordinate", "energy meter installed", "energy supply max power", "ferromagnetic wheel material", "fixed seats", "flange lubrication fitted", "frequency lineside indication", "has automatic dropping device", "has cant defficiency compensation", "has current limitation", "has lubrication device prevention", "has parking brake", "has point of safe egress", "has sanding prevention", "has shunting restrictions", "has train integrity confirmation", "has walkway", "has wheel slide protection system", "instructions switch radio systems", "is a loop", "is a trap point", "is bridge", "is switchable", "is tunnel", kilometer, "letter marking", "linear coordinate", "loading platform height", "magnetic brake prevention", "mass per wheel", "maximum average deceleration", "maximum brake thermal energy capacity", "maximum design speed", "maximum length vehicle nose", "maximum locomotives coupled", "maximum permissible speed", "maximum service break", "maximum speed and cant deficiency", "maximum speed empty", "meets requirement vehicle authorization", "minimum concave vertical radius", "minimum convex vertical radius", "minimum radius of vertical curve", "minimum vehicle impedance", netElementPosition, "non coded restrictions", "number elements rake freight wagons", "number of pantographs in contact with OCL", "number of toilets", "ocl type", "parking brake", "parking brake mandatory", "parking brake maximum gradient", "pass-by noise level", "permissible payload", "platform curvature", "platform id", "portable boarding aids", "position begin", "position end", "prevent regenerative brake use", "priority seats", "prm accessible toilets", "protects danger point", "quasi static guiding force", "radio switch over special conditions", "rail system type", "reference pass-by noise level", "relative position", "shortest distance between pantographs in contact with OCL", "sleeping places", "start intrinsic coordinate", "starting noise level", "static axle load in working order", "static axle load under exceptional payload", "static axle load under normal payload", "stationary noise level", "structural category", "thermal capacity distance", "thermal capacity gradient", "thermal capacity speed", "thermal capacity time", "total vehicle mass", "train control switch over special conditions", "transportable on ferry", "tsi compliant", "type version number", "vehicle contact force", "vehicle kinematic gauge other", "vehicle max sanding output", "vehicle number", "vehicle pantograph head", "vehicle series", "vehicles composing fixed formation", "voice operational communication implementation", voltage, "wheel set gauge transformation method", "wheelchair sleeping spaces", "wheelchair spaces"

### 175 DatatypeProperty NEW from era121:

"Acceleration allowed at level crossing", "Additional information on network characteristics", "Areas of use of the platform boarding aid", "Compliance of the tunnel with INF TSI", "Cross section area", "Details on roaming to public networks", "Diesel or other thermal traction allowed", "Distance between signboard and phase separation ending", "Document with the procedure(s) related to the type of track circuits declared in 1.1.1.3.7.1.2", "EC declaration of verification for track (CCS)", "EC declaration of verification for track (ENE)", "EC declaration of verification for track/siding [INF]", "EC declaration of verification for tunnel (SRT)", "EI declaration of demonstration for track (ENE)", "EI declaration of demonstration for track/siding [INF]", "EI declaration of demonstration for tunnel (SRT)", "ETCS data communication application", "ETCS implements level crossing procedure", "ETCS infill necessary for line access", "ETCS national applications", "ETCS national packet 44 application implemented", "ETCS on-board implementation", "ETCS optional functions", "ETCS transmits track conditions", "Entry of Driver ID permitted while running", "Existence of ballast", "Existence of electric shore supply", "Existence of emergency plan", "Existence of external cleaning facilities", "Existence of level crossings", "Existence of operating restrictions or conditions", "Existence of other train protection, control and warning systems installed", "Existence of platform assistance for starting train", "Existence of refuelling", "Existence of roaming to public networks", "Existence of rules and restrictions of a strictly local nature.", "Existence of rules on on-board flange lubrication", "Existence of sand restocking", "Existence of switch over between different protection, control and warning systems while running", "Existence of switch over between different radio systems", "Existence of toilet discharge", "Existence of train detection system fully compliant with the TSI", "Existence of water restocking", "GPRS for ETCS", "GPRS implementation area", "GSM-R sets in driving cab", "GSMR constraints operate only in circuit-switch", "GSMR forced deregistration functional number", "Gradient for stabling tracks", "IM's code", "Identification of siding", "Identification of track", "Indication whether tilting functions are supported by ETCS", "Information on phase separation", "Information on system separation", "Length (of Section of Line, of Tunnel, of Siding, Usable lenght of Platform)", "Maximal time without new “safe” message", "Maximum altitude", "Maximum distance between end of train and first axle", "Maximum distance for overriding the train trip ", "Maximum distance for reversing in Post Trip mode", "Maximum permitted distance between two consecutive axles in case of TSI non-compliance", "Maximum permitted height of the flange", "Maximum permitted impedance between opposite wheels of a wheelset when not TSI compliant", "Maximum time for overriding the train trip", "Maximum train current", "Minimum permitted axle load", "Minimum permitted distance between first and last axle", "Minimum permitted distance between two consecutive axles", "Minimum permitted height of the flange", "Minimum permitted thickness of the flange", "Minimum permitted wheel diameter", "Minimum permitted width of the rim", "Name of Operational point", "Need for more than one train protection, control and warning system required on board", "No GSM-R coverage", "Override speed limit to be supervised when the “override” function is active", "Phase separation", "Qualifier Emergency Brake Release ", "Qualifier for the modification of trackside adhesion factor by driver", "Reference of the documents regarding the rules or restrictions of a strictly local nature available by the IM", "Reference to a document available from the IM with precise description of the tunnel", "Roll away distance limit ", "Sanding override by driver required", "Specific information", "Speed limit allowing the driver to select the “override” function ", "Steady red lights required", "System separation", "TEN GIS identity", "TSI compliance of in service values for switches and crossings", "Tunnel identification", "Type of track gauge changeover facility", "Use of flange lubrication forbidden", "altitude range", "altitude range detail", "boarding aids", "cant defficiency", "catenary max rated current", "conditions applied regenerative braking", "conditions switch class B systems", "conditions switch train protection systems", "conditions train formation", "currently valid", "dangerous goods tank code", "driving cabs", "end intrinsic coordinate", "energy meter installed", "energy supply max power", "ferromagnetic wheel material", "fixed seats", "flange lubrication fitted", "frequency lineside indication", "has cant defficiency compensation", "has lubrication device prevention", "has parking brake", "has point of safe egress", "has sanding prevention", "has shunting restrictions", "has walkway", "has wheel slide protection system", "instructions switch radio systems", "is a loop", "is a trap point", "is bridge", "is switchable", "is tunnel", "letter marking", "linear coordinate", "loading platform height", "mass per wheel", "maximum average deceleration", "maximum brake thermal energy capacity", "maximum length vehicle nose", "maximum locomotives coupled", "maximum permissible speed", "maximum service break", "maximum speed empty", "meets requirement vehicle authorization", "minimum vehicle impedance", netElementPosition, "non coded restrictions", "number elements rake freight wagons", "number of toilets", "parking brake", "parking brake mandatory", "pass-by noise level", "platform curvature", "platform id", "portable boarding aids", "position begin", "position end", "priority seats", "prm accessible toilets", "protects danger point", "quasi static guiding force", "radio switch over special conditions", "rail system type", "reference pass-by noise level", "relative position", "sleeping places", "start intrinsic coordinate", "starting noise level", "stationary noise level", "structural category", "total vehicle mass", "train control switch over special conditions", "transportable on ferry", "vehicle kinematic gauge other", "vehicle max sanding output", "vehicles composing fixed formation", "voice operational communication implementation", voltage, "wheel set gauge transformation method", "wheelchair sleeping spaces", "wheelchair spaces"

### 10 DatatypeProperty REMOVED from era121:

bidirectional, "conditional eddy current braking", "conditional emergency only eddy current braking", "conditional emergency only magnetic braking", "conditional magnetic braking", "emergency only eddy current braking", "emergency only magnetic braking", "track length", "tunnel length", "vehicle length"

### 74 DatatypeProperty MODIFIED from era121:

"Automatic dropping device required", "Availability by the IM of additional information", "Belonging to a quieter route", "Cant deficiency", "Compliance of structures with the High Speed Load Model (HSLM) dynamic load model", "Contact force permitted", "Current or power limitation on board required", "Document with the conditions for the use of eddy current brakes", "Document with the conditions for the use of magnetic brakes", "Document with the procedure(s) for static and dynamic route compatibility checks", "Document with the transversal section of the particular points requiring specific checks", "Documents available by the IM relating to braking performance", "Energy supply system TSI compliant", "Existence of severe climatic conditions", "Existence of trackside hot axle box detector (HABD)", "Generation of trackside HABD", "Gradient profile", "Identification of trackside HABD", "Maximum braking distance requested", "Maximum contact wire height", "Maximum current at standstill per pantograph", "Maximum permitted speed", "Maximum train deceleration", "Minimum contact wire height", "Minimum radius of horizontal curve", "Minimum wheel diameter for fixed obtuse crossings", "National classification for load capability", "National fire category of rolling stock required", "OP TAF/TAP primary code", "Permission for regenerative braking", "Railway location of particular points requiring specific checks", "Railway location of structures requiring specific checks", "Railway location of trackside HABD", "Requirements for number of raised pantographs and spacing between them, at the given speed", "Temperature range (maximum)", "Temperature range (minimum)", "Trackside HABD TSI compliant", "Train integrity confirmation from on-board necessary for line access", "Umax2 for lines referred to in sections 7.4.2.2.1 and 7.4.2.11.1 of Regulation (EU)1301/2014.", "Unique OP ID", "Use of group 555", "alternative name", "axle spacing", "brake weight percentage", "conditional regenerative brake", "design mass in working order", "design mass under exceptional payload", "design mass under normal payload", "eddy current brake prevention", "emergency braking", "has automatic dropping device", "has current limitation", "has train integrity confirmation", kilometer, "magnetic brake prevention", "maximum design speed", "maximum speed and cant deficiency", "minimum concave vertical radius", "minimum convex vertical radius", "minimum radius of vertical curve", "number of pantographs in contact with OCL", "parking brake maximum gradient", "permissible payload", "prevent regenerative brake use", "shortest distance between pantographs in contact with OCL", "static axle load in working order", "static axle load under exceptional payload", "static axle load under normal payload", "thermal capacity distance", "thermal capacity gradient", "thermal capacity speed", "thermal capacity time", "type version number", "vehicle contact force"

# Modified Entities

## Object entities

### ontorail:Object era262:Manufacturer modifications from era121:

 == rdfs:subClassOf => :RootObject, ++ org:Organization, -- schema:Organization

### ontorail:Object era262:"Operational Point" modifications from era121:

 == dcterms:modified => ++ "2022-07-07", -- "2020-09-01"

 ++ rdfs:seeAlso => railml:DataModel/3.2/IS/EARoot/EA238.htm

 == rdfs:subClassOf => ++ :"Infrastructure object", -- :RootObject, -- gsp:Feature, -- wgs:SpatialThing

### ontorail:Object era262:Track modifications from era121:

 == dcterms:modified => ++ "2022-07-07", -- "2020-07-29"

 ++ rdfs:seeAlso => railml:DataModel/3.2/IS/EARoot/EA400.htm

 == rdfs:subClassOf => ++ :"Infrastructure object", -- :RootObject

### ontorail:Object era262:Tunnel modifications from era121:

 ++ dc:source => <https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj>

 == dcterms:modified => ++ "2022-07-07", -- "2020-07-29"

 == rdfs:subClassOf => ++ :"Infrastructure object", -- :RootObject

### ontorail:Object era262:"Vehicle Keeper" modifications from era121:

 == rdfs:subClassOf => :RootObject, ++ org:Organization, -- schema:Organization

### ontorail:Object era262:"Vehicle Type" modifications from era121:

 == rdfs:subClassOf => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b1", :RootObject

## ObjectProperty entities

### ontorail:ObjectProperty era262:"ETCS system compatibility" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/etcs-system-compatibilities/ETCSSystemCompatibilities

 ++ isCoreParameter => "true"

 == rdfs:comment => ++ "ETCS requirements used for demonstrating technical compatibility. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/etcs-system-compatibilities/ETCSSystemCompatibilities", -- "ETCS requirements used for demonstrating technical compatibility."

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b11", -- "f79e68fb8eeb842799a6f1f578bab0821b23"

 == rdfs:range => ++ skos:Concept, -- etcs-system-compatibilities:ETCSSystemCompatibility

### ontorail:ObjectProperty era262:"End of tunnel" modifications from era121:

 == dcterms:modified => ++ "2021-08-11", -- "2020-07-29"

 ++ isCoreParameter => "true"

 == rdfs:label => ++ "End of tunnel", -- "end location"

 == rdfs:range => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b45", -- "f79e68fb8eeb842799a6f1f578bab0821b32"

 ++ rinfIndex => "1.1.1.1.8.4"

### ontorail:ObjectProperty era262:"Energy supply system" modifications from era121:

 == dcterms:modified => ++ "2021-08-06", -- "2020-11-03"

 ++ dcterms:source => <https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj>

 ++ inSkosConceptScheme => :concepts/energy-supply-systems/EnergySupplySystems

 ++ isCoreParameter => "true"

 == rdfs:comment => ++ "Indication of the traction supply system (nominal voltage and frequency). Type of end coupling (indicating tensile and compressive forces). The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/energy-supply-systems/EnergySupplySystems\nIn https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj 3.3.1 Energy supply system (voltage and frequency).", -- "Indication of the traction supply system (nominal voltage and frequency)."

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b8", -- "f79e68fb8eeb842799a6f1f578bab0821b17"

 == rdfs:label => ++ "Energy supply system", -- "energy supply system"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/energy-supply-systems#EnergySupplySystem>

 ++ routebookIndex => "3.3.1"

### ontorail:ObjectProperty era262:"Fire category of rolling stock required" modifications from era121:

 == dcterms:modified => ++ "2021-08-10", -- "2020-11-03"

 ++ dcterms:source => <https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj>

 ++ inSkosConceptScheme => :concepts/rolling-stock-fire/Categories

 ++ isCoreParameter => "true"

 == rdf:type => :ObjectProperty, ++ owl:FunctionalProperty, owl:ObjectProperty

 == rdfs:comment => ++ "Applicable rolling stock fire category for a tunnel. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/rolling-stock-fire/Categories.\nIn https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj 3.2.3 Tunnels: location, name, length, specific information such as the existence of walkways and points of safe egress as well as the location of safe areas where evacuation of passengers may take place; fire safety categorisation.", -- "Applicable rolling stock fire category for a tunnel."

 == rdfs:label => ++ "Fire category of rolling stock required", -- "rolling stock fire category"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/rolling-stock-fire#Category>

 == rinfIndex => "1.1.1.1.8.10", ++ "1.2.1.0.5.7", ++ "1.2.2.0.5.7"

 ++ routebookIndex => "3.2.3"

### ontorail:ObjectProperty era262:"GSM-R networks covered by a roaming agreement" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/gsmr-networks/GSMRNetworks

 == rdfs:comment => ++ "GSM-R networks covered by a roaming agreement. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/gsmr-networks/GSMRNetworks", -- "GSM-R networks covered by a roaming agreement"

 == rdfs:label => ++ "GSM-R networks covered by a roaming agreement", -- "gsm-r network coverage"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/gsmr-networks#GSMRNetwork>

### ontorail:ObjectProperty era262:Gauging modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/gaugings/GaugingProfiles

 ++ isCoreParameter => "true"

 == rdfs:comment => ++ "Gauges as defined in European standard or other local gauges, including lower or upper part. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/gaugings/GaugingProfiles", -- "Gauges as defined in European standard or other local gauges, including lower or upper part."

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b12", -- "f79e68fb8eeb842799a6f1f578bab0821b7"

 == rdfs:label => ++ "Gauging", -- "gauging profile"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/gaugings#GaugingProfile>

 == rinfIndex => "1.1.1.1.3.1.1", ++ "1.2.1.0.3.4"

### ontorail:ObjectProperty era262:"Height of platform" modifications from era121:

 == dcterms:created => ++ "2021-08-02", -- "2020-07-29"

 == dcterms:modified => ++ "2021-08-02", -- "2020-11-03"

 ++ dcterms:source => <https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj>

 ++ inSkosConceptScheme => :concepts/platform-heights/PlatformHeights

 ++ isCoreParameter => "true"

 == rdf:type => :ObjectProperty, ++ owl:FunctionalProperty, owl:ObjectProperty

 == rdfs:comment => ++ "Distance between the upper surface of platform and running surface of the neighbouring track. It is the nominal value expressed in millimetres. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/platform-heights/PlatformHeights\nIn https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj 2.3.7 Height of platforms.", -- "Platform heights for which the vehicle is de­signed."

 == rdfs:domain => ++ :"Platform", -- :"Vehicle Type"

 == rdfs:label => ++ "Height of platform", -- "platform height"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/platform-heights#PlatformHeight>

 ++ rinfIndex => "1.2.1.0.6.5"

 ++ routebookIndex => "2.3.7"

 -- eratvIndex => "4.12.3.1"

### ontorail:ObjectProperty era262:"Load Capability" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/load-capabilities/LoadCapabilities

 ++ isCoreParameter => "true"

 == rdfs:comment => ++ "A combination of the line category and speed at the weakest point of the track. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/load-capabilities/LoadCapabilities", -- "A combination of the line category and speed at the weakest point of the track."

 == rdfs:label => ++ "Load Capability", -- "load capability"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/load-capabilities#LoadCapability>

### ontorail:ObjectProperty era262:"National line identification" modifications from era121:

 == dcterms:modified => ++ "2021-08-11", -- "2021-01-25"

 ++ isCoreParameter => "true"

 == rdf:type => :ObjectProperty, ++ owl:FunctionalProperty, owl:ObjectProperty

 == rdfs:comment => ++ "Related national railway line.", -- "Related national line identification."

 ++ rdfs:domain => "fb5ac6ce34d44445bb7d8f3dd9219fd37b15"

 == rdfs:label => ++ "National line identification", -- "line national ID"

 == rdfs:range => ++ :"National Railway Line", -- :"Line National Id"

 ++ rinfIndex => "1.1.0.0.0.2"

### ontorail:ObjectProperty era262:"Nominal track gauge" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/nominal-track-gauges/NominalTrackGauges

 ++ isCoreParameter => "true"

 == rdf:type => ++ :ObjectProperty, ++ owl:FunctionalProperty, ++ owl:ObjectProperty, -- :DatatypeProperty, -- owl:DatatypeProperty

 == rdfs:comment => ++ "A single value expressed in millimetres that identifies the track and vehicle wheel set gauge. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/nominal-track-gauges/NominalTrackGauges", -- "A single value expressed in millimetres that identifies the track and vehicle wheel set gauge."

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b23", -- "f79e68fb8eeb842799a6f1f578bab0821b10"

 == rdfs:label => ++ "Nominal track gauge", -- "wheel set gauge"

 == rdfs:range => ++ skos:Concept, -- xsd:integer

 == rinfIndex => "1.1.1.1.4.1", ++ "1.2.1.0.4.1"

### ontorail:ObjectProperty era262:"Other radio systems installed (Radio Legacy Systems)" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 ++ dcterms:source => <https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj>

 ++ inSkosConceptScheme => :concepts/legacy-radio-systems/LegacyRadioSystems

 ++ isCoreParameter => "true"

 == rdfs:comment => ++ "Indication of radio legacy systems installed. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/legacy-radio-systems/LegacyRadioSystems\nIn https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj 3.2.8 Type of track to train radio equipment.", -- "Indication of radio legacy systems installed"

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b14", -- "f79e68fb8eeb842799a6f1f578bab0821b28"

 == rdfs:label => ++ "Other radio systems installed (Radio Legacy Systems)", -- "legacy radio system"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/legacy-radio-systems#LegacyRadioSystem>

 ++ routebookIndex => "3.2.8"

### ontorail:ObjectProperty era262:"Permitted contact strip material" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/contact-strip-materials/ContactStripMaterials

 == rdfs:comment => ++ "Indication of which contact strip materials are permitted to be used. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/contact-strip-materials/ContactStripMaterials", -- "Indication of which contact strip materials are permitted to be used."

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b6", -- "f79e68fb8eeb842799a6f1f578bab0821b22"

 == rdfs:label => ++ "Permitted contact strip material", -- "contact strip material"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/contact-strip-materials#ContactStripMaterial>

### ontorail:ObjectProperty era262:"Radio system compatibility data" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/radio-system-compatibilities-data/RadioSystemCompatibilitiesData

 == rdfs:comment => ++ "Radio requirements used for demonstrating technical compatibility voice.\n The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/radio-system-compatibilities-data/RadioSystemCompatibilitiesData.", -- "Radio requirements used for demonstrating technical compatibility data"

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b7", -- "f79e68fb8eeb842799a6f1f578bab0821b26"

 == rdfs:label => ++ "Radio system compatibility data", -- "data radio compatible"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/radio-system-compatibilities#RadioSystemCompatibility>

### ontorail:ObjectProperty era262:"Radio system compatibility voice" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/voice-radio-system-compatibilities/VoiceRadioSystemCompatibilities

 == rdfs:comment => ++ "Radio requirements used for demonstrating technical compatibility voice.\n The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/voice-radio-system-compatibilities/VoiceRadioSystemCompatibilities. This concept scheme is temporatily non-deferenceable.", -- "Radio requirements used for demonstrating technical compatibility voice"

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b22", -- "f79e68fb8eeb842799a6f1f578bab0821b25"

 == rdfs:label => ++ "Radio system compatibility voice", -- "voice radio compatible"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/radio-system-compatibilities#RadioSystemCompatibility>

### ontorail:ObjectProperty era262:"Rail inclination" modifications from era121:

 == dcterms:modified => ++ "2022-10-20", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/rail-inclinations/RailInclinations

 ++ isCoreParameter => "true"

 == rdf:type => :ObjectProperty, ++ owl:FunctionalProperty, owl:ObjectProperty

 == rdfs:comment => ++ "An angle defining the inclination of the head of a rail relative to the running surface. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/rail-inclinations/RailInclinations\nThis property has been changed, its rinfIndex was deleted. RINF treats this parameter as an integer. A new datatype property for RINF has been defined called railInclinationMeasurement.\nThis change was rolled back, RINF index was again added.", -- "An angle defining the inclination of the head of a rail relative to the running surface."

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b18", -- "f79e68fb8eeb842799a6f1f578bab0821b9"

 == rdfs:label => ++ "Rail inclination", -- "rail inclination"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/rail-inclinations#RailInclination>

### ontorail:ObjectProperty era262:"Railway location of Operational point" modifications from era121:

 == dcterms:modified => ++ "2021-08-11", -- "2021-01-29"

 ++ isCoreParameter => "true"

 == rdfs:comment => ++ "Indicates a relationship with a national railway line at a specific kilometer point.", -- "Indicates a relationship with a specific national railway line."

 ++ rdfs:domain => :"Operational Point"

 == rdfs:label => ++ "Railway location of Operational point", -- "line referece"

 ++ rinfIndex => "1.2.0.0.0.6"

### ontorail:ObjectProperty era262:"Section with train detection limitation, only for the French network" modifications from era121:

 == dcterms:modified => ++ "2022-12-13", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/train-detection/FrenchTrainDetectionSystemLimitations

 == rdfs:comment => ++ "Section with train detection limitation, specific for route compatibility check on French network. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/train-detection/FrenchTrainDetectionSystemLimitations.", -- "Section with train detection limitation, specific for route compatibility check on French network."

 == rdfs:domain => ++ :"Train Detection System", -- :"Track"

 == rdfs:label => ++ "Section with train detection limitation, only for the French network", -- "french train detection system limitation"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/train-detection#FrenchTrainDetectionSystemLimitation>

### ontorail:ObjectProperty era262:"Start of tunnel" modifications from era121:

 == dcterms:modified => ++ "2021-08-11", -- "2020-07-29"

 ++ isCoreParameter => "true"

 == rdfs:label => ++ "Start of tunnel", -- "start location"

 == rdfs:range => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b46", -- "f79e68fb8eeb842799a6f1f578bab0821b31"

 ++ rinfIndex => "1.1.1.1.8.3"

### ontorail:ObjectProperty era262:"Train protection legacy system" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/train-protection-legacy-systems/TrainProtectionLegacySystems

 ++ isCoreParameter => "true"

 == rdfs:comment => ++ "Indication of which class B system is installed. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/train-protection-legacy-systems/TrainProtectionLegacySystems", -- "Indication of which class B system is installed"

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b17", -- "f79e68fb8eeb842799a6f1f578bab0821b27"

 == rdfs:label => ++ "Train protection legacy system", -- "protection legacy system"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/train-protection-legacy-systems#TrainProtectionLegacySystem>

### ontorail:ObjectProperty era262:"Type of operational point" modifications from era121:

 == dcterms:modified => ++ "2021-08-03", -- "2020-07-29"

 ++ dcterms:source => <https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj>

 ++ inSkosConceptScheme => :concepts/op-types/OperationalPointTypes

 ++ isCoreParameter => "true"

 == rdf:type => :ObjectProperty, ++ owl:FunctionalProperty, owl:ObjectProperty

 == rdfs:comment => ++ "Indicates the type on an operational point. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/op-types/OperationalPointTypes.\nIn https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj 2.3.2 Type of location passenger terminal, freight terminal, yard, depot.", -- "Indicates the type on an operational point."

 == rdfs:label => ++ "Type of operational point", -- "operational point type"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/op-types#OperationalPointType>

 ++ rinfIndex => "1.2.0.0.0.4"

 ++ routebookIndex => "2.3.2"

### ontorail:ObjectProperty era262:"Type of track circuits to which specific checks are needed" modifications from era121:

 == dcterms:modified => ++ "2021-08-08", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/train-detection-specific-checks/TrainDetectionSystemsSpecificChecks

 == rdf:type => ++ :ObjectProperty, ++ owl:ObjectProperty, -- :DatatypeProperty, -- owl:DatatypeProperty

 == rdfs:comment => ++ "Type of track circuits or axle counter to which specific checks are needed. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/train-detection-specific-checks/TrainDetectionSystemsSpecificChecks", -- "Type of track circuits or axle counter to which specific checks are needed."

 == rdfs:domain => ++ :"Train Detection System", -- :"Track"

 == rdfs:label => ++ "Type of track circuits to which specific checks are needed", -- "detection system specific check"

 == rdfs:range => ++ skos:Concept, -- xsd:string

### ontorail:ObjectProperty era262:"Use of eddy current brakes" modifications from era121:

 == dcterms:modified => ++ "2022-09-06", -- "2020-11-03"

 ++ dcterms:source => <https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj>

 ++ inSkosConceptScheme => :concepts/eddy-current-braking/EddyCurrentBraking

 ++ isCoreParameter => "true"

 == rdf:type => ++ :ObjectProperty, ++ owl:FunctionalProperty, ++ owl:ObjectProperty, -- :DatatypeProperty, -- owl:DatatypeProperty

 == rdfs:comment => ++ "Use of eddy current brakes. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/eddy-current-braking/EddyCurrentBraking\nThis property has been modified to be a RINF parameter (its eratvIndex is deleted). It is treated as a SKOS by RINF and as a boolean by ERATV. A new ERATV datatype property has been defined, eddyCurrentBrakingFitted with boolean values.\nIn https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj 3.4.5 Permissibility to use Eddy-current brake.", -- "Use of eddy current brakes."

 == rdfs:domain => ++ :"Track", -- "f79e68fb8eeb842799a6f1f578bab0821b14"

 == rdfs:label => ++ "Use of eddy current brakes", -- "eddy current braking"

 == rdfs:range => ++ skos:Concept, -- xsd:boolean

 ++ routebookIndex => "3.4.5"

 -- eratvIndex => "4.7.4.1.1"

### ontorail:ObjectProperty era262:"Use of magnetic brakes" modifications from era121:

 == dcterms:modified => ++ "2022-09-12", -- "2020-11-03"

 ++ dcterms:source => <https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj>

 ++ inSkosConceptScheme => :concepts/magnetic-braking/MagneticBraking

 ++ isCoreParameter => "true"

 == rdf:type => ++ :ObjectProperty, ++ owl:FunctionalProperty, ++ owl:ObjectProperty, -- :DatatypeProperty, -- owl:DatatypeProperty

 == rdfs:comment => ++ "Use of magnetic brakes. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/magnetic-braking/MagneticBraking.\nThis property has been modified to be a RINF parameter (its eratvIndex is deleted). It is treated as a SKOS by RINF and as a boolean by ERATV. A new ERATV datatype property has been defined, magneticBrakingFitted with boolean values.\nIn 3.4.6 https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj Permissibility to use magnetic brake.", -- "Use of magnetic brakes."

 == rdfs:domain => ++ :"Track", -- "f79e68fb8eeb842799a6f1f578bab0821b13"

 == rdfs:label => ++ "Use of magnetic brakes", -- "magnetic braking"

 == rdfs:range => ++ skos:Concept, -- xsd:boolean

 ++ routebookIndex => "3.4.6"

 -- eratvIndex => "4.7.4.2.1"

### ontorail:ObjectProperty era262:"authorized country" modifications from era121:

 ++ inSkosConceptScheme => <http://publications.europa.eu/resource/authority/country>

 == rdfs:comment => ++ "Indicates the country(ies) in where a vehicle type has been authorized to operate. The allowed values for this property belong to the SKOS Concept Scheme http://publications.europa.eu/resource/authority/country", -- "Indicates the country(ies) in where a vehicle type has been authorized to operate."

### ontorail:ObjectProperty era262:"axle bearing condition monitoring" modifications from era121:

 == dcterms:modified => ++ "2021-08-02", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/axle-monitoring/AxleBearingMonitoring

 == rdfs:comment => ++ "Axle bearing condition monitoring. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/axle-monitoring/AxleBearingMonitoring", -- "Axle bearing condition monitoring."

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/axle-monitoring#AxleBearingMonitoring>

### ontorail:ObjectProperty era262:"contact line system" modifications from era121:

 == dcterms:modified => ++ "2021-09-11", -- "2020-11-03"

 == rdfs:comment => ++ "Contact line system present in the section of line.", -- "Indication of the type of the contact line system."

 == rdfs:range => ++ :"Contact Line System", -- <http://era.europa.eu/concepts/contact-line-systems#ContactLineSystem>

 -- rinfIndex => "1.1.1.2.2.1.1"

### ontorail:ObjectProperty era262:"data GSM-R network" modifications from era121:

 == dcterms:modified => ++ "2021-08-02", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/gsmr-networks/GSMRNetworks

 == rdf:type => :ObjectProperty, ++ owl:FunctionalProperty, owl:ObjectProperty

 == rdfs:comment => ++ "Data SIM Card GSM-R Home Network. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/gsmr-networks/GSMRNetworks", -- "Data SIM Card GSM-R Home Network"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/gsmr-networks#GSMRNetwork>

### ontorail:ObjectProperty era262:"fire safety category" modifications from era121:

 == dcterms:modified => ++ "2021-08-03", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/rolling-stock-fire/Categories

 == rdf:type => :ObjectProperty, ++ owl:FunctionalProperty, owl:ObjectProperty

 == rdfs:comment => ++ "Fire safety category for tunnels. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/rolling-stock-fire/Categories.", -- "Fire safety category for tunnels."

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/rolling-stock-fire#Category>

### ontorail:ObjectProperty era262:"has abstraction" modifications from era121:

 == dcterms:modified => ++ "2022-10-27", -- "2020-07-29"

 == rdfs:domain => ++ :"Infrastructure object", -- "f79e68fb8eeb842799a6f1f578bab0821b2"

 == rdfs:range => ++ :"Net Element", -- "f79e68fb8eeb842799a6f1f578bab0821b30"

### ontorail:ObjectProperty era262:"has implementation" modifications from era121:

 == dcterms:modified => ++ "2022-10-27", -- "2020-07-29"

 == rdfs:domain => ++ :"Net Element", -- "f79e68fb8eeb842799a6f1f578bab0821b1"

 == rdfs:range => ++ :"Infrastructure object", -- "f79e68fb8eeb842799a6f1f578bab0821b29"

 -- owl:inverseOf => :"has abstraction"

### ontorail:ObjectProperty era262:"hot axle box detector direction" modifications from era121:

 == dcterms:created => ++ "2022-07-08", -- "2020-08-24"

 ++ inSkosConceptScheme => :concepts/hot-axle/HotAxleBoxDetectorDirections

 == rdf:type => ++ :ObjectProperty, ++ owl:ObjectProperty, -- :DatatypeProperty, -- owl:DatatypeProperty

 == rdfs:comment => ++ "Direction of measurement of trackside HABD. Specific for the French Italian and Swedish networks.\n\nThis property was previously a datatype property with domain Track and range string. As its values are a list of three predefined values, it is now a SKOS. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/hot-axle/HotAxleBoxDetectorDirections", -- "Direction of measurement of trackside HABD. Specific for the French Italian and Swedish networks."

 == rdfs:range => ++ skos:Concept, -- xsd:string

 ++ rdfs:subPropertyOf => owl:topObjectProperty

 -- dcterms:modified => "2020-11-03"

 -- vs:term\_status => "stable"

### ontorail:ObjectProperty era262:"in country" modifications from era121:

 ++ inSkosConceptScheme => <http://publications.europa.eu/resource/authority/country>

 == rdfs:comment => ++ "Indicates the country in which an entity resides. The allowed values for this property belong to the SKOS Concept Scheme http://publications.europa.eu/resource/authority/country", -- "Indicates the country in which an entity resides."

 ++ rdfs:domain => :"Infrastructure object"

### ontorail:ObjectProperty era262:"manufacturing country" modifications from era121:

 ++ inSkosConceptScheme => <http://publications.europa.eu/resource/authority/country>

 == rdfs:comment => ++ "Indicates the country in which a vehicle or vehicle type is manufactured. The allowed values for this property belong to the SKOS Concept Scheme http://publications.europa.eu/resource/authority/country", -- "Indicates the country in which a vehicle or vehicle type is manufactured."

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b16", -- "f79e68fb8eeb842799a6f1f578bab0821b5"

### ontorail:ObjectProperty era262:"operational restriction" modifications from era121:

 == dcterms:modified => ++ "2021-08-03", -- "2020-11-23"

 ++ inSkosConceptScheme => :concepts/restrictions/Restrictions

 == rdfs:comment => ++ "Indicates an operational restriction of vehicle or wagon. Parking brake type (if the vehicle is fitted with it). The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/restrictions/Restrictions.", -- "Indicates an operational restriction of vehicle or wagon."

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/restrictions#Restriction>

### ontorail:ObjectProperty era262:"passes through tunnel" modifications from era121:

 == dcterms:modified => ++ "2022-10-27", -- "2020-07-29"

### ontorail:ObjectProperty era262:"quieter route exempted country" modifications from era121:

 ++ inSkosConceptScheme => <http://publications.europa.eu/resource/authority/country>

 == rdfs:comment => ++ "Country where a vehicle may operate without noise restrictions. The allowed values for this property belong to the SKOS Concept Scheme http://publications.europa.eu/resource/authority/country", -- "Country where a vehicle may operate without noise restrictions"

### ontorail:ObjectProperty era262:"snow ice hail conditions" modifications from era121:

 == dcterms:modified => ++ "2021-08-02", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/ice-conditions/IceConditions

 == rdf:type => :ObjectProperty, ++ owl:FunctionalProperty, owl:ObjectProperty

 == rdfs:comment => ++ "Snow, ice and hail conditions. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/ice-conditions/IceConditions", -- "Snow, ice and hail conditions."

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/ice-conditions#IceCondition>

### ontorail:ObjectProperty era262:"thermal capacity TSI reference" modifications from era121:

 == dcterms:modified => ++ "2021-08-02", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/thermal-capacity/ThermalCapacityTSIReferences

 == rdf:type => :ObjectProperty, ++ owl:FunctionalProperty, owl:ObjectProperty

 == rdfs:comment => ++ "Reference case of a TSI thermal capacity. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/thermal-capacity/ThermalCapacityTSIReferences", -- "Reference case of a TSI thermal capacity."

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/thermal-capacity#ThermalCapacityTSIReference>

### ontorail:ObjectProperty era262:"train detection system" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 == rdfs:comment => ++ "Train detection systems installed in the section of line.", -- "Indication of supported types of train detection systems."

 == rdfs:domain => ++ :"Track", -- "f79e68fb8eeb842799a6f1f578bab0821b8"

 == rdfs:range => ++ :"Train Detection System", -- <http://era.europa.eu/concepts/train-detection#TrainDetectionSystem>

 -- eratvIndex => "4.14.1"

 -- rinfIndex => "1.1.1.3.7.1.1"

### ontorail:ObjectProperty era262:"vehicle category" modifications from era121:

 == dcterms:modified => ++ "2021-08-03", -- "2020-11-19"

 ++ eratvIndex => "1.4"

 ++ inSkosConceptScheme => :concepts/vehicle-types/Categories

 == rdf:type => :ObjectProperty, ++ owl:FunctionalProperty, owl:ObjectProperty

 == rdfs:comment => ++ "Vehicle category. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/vehicle-types/Categories.", -- "Vehicle category."

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/vehicle-types#Category>

### ontorail:ObjectProperty era262:"vehicle subcategory" modifications from era121:

 == dcterms:modified => ++ "2021-08-03", -- "2020-11-19"

 ++ eratvIndex => "1.5"

 ++ inSkosConceptScheme => :concepts/vehicle-types/Categories

 == rdf:type => :ObjectProperty, ++ owl:FunctionalProperty, owl:ObjectProperty

 == rdfs:comment => ++ "Vehicle subcategory. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/vehicle-types/Categories.", -- "Vehicle subcategory."

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/vehicle-types#SubCategory>

### ontorail:ObjectProperty era262:"voice GSM-R network" modifications from era121:

 == dcterms:modified => ++ "2021-08-02", -- "2020-11-03"

 ++ inSkosConceptScheme => :concepts/gsmr-networks/GSMRNetworks

 == rdf:type => :ObjectProperty, ++ owl:FunctionalProperty, owl:ObjectProperty

 == rdfs:comment => ++ "Voice SIM Card GSM-R Home Network. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/gsmr-networks/GSMRNetworks", -- "Voice SIM Card GSM-R Home Network"

 == rdfs:range => ++ skos:Concept, -- <http://era.europa.eu/concepts/gsmr-networks#GSMRNetwork>

### ontorail:ObjectProperty era262:"wheelset gauge changeover facility" modifications from era121:

 == dcterms:modified => ++ "2021-08-25", -- "2020-11-03"

 == eratvIndex => ++ "4.1.11", -- "4.6.4"

 ++ inSkosConceptScheme => :concepts/gauge-changeover-facilities/GaugeChangeoverFacilities

 == rdf:type => :ObjectProperty, ++ owl:FunctionalProperty, owl:ObjectProperty

 == rdfs:comment => ++ "Wheelset gauge changeover facility. The allowed values for this property belong to the SKOS Concept Scheme http://ontorail.org/src/ERA/era262/concepts/gauge-changeover-facilities/GaugeChangeoverFacilities", -- "Wheelset gauge changeover facility."

 == rdfs:range => ++ skos:Concept, -- gauge-changeover-facilities:GaugeChangeoverFacility

## DatatypeProperty entities

### ontorail:DatatypeProperty era262:"Automatic dropping device required" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "Automatic dropping device required", -- "automatic dropping device required"

### ontorail:DatatypeProperty era262:"Availability by the IM of additional information" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 ++ isCoreParameter => "true"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "Availability by the IM of additional information", -- "has additional braking information"

### ontorail:DatatypeProperty era262:"Belonging to a quieter route" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-25"

 ++ isCoreParameter => "true"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "Belonging to a quieter route", -- "is quiet route"

### ontorail:DatatypeProperty era262:"Cant deficiency" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 ++ isCoreParameter => "true"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "Cant deficiency", -- "cant deficiency"

### ontorail:DatatypeProperty era262:"Compliance of structures with the High Speed Load Model (HSLM) dynamic load model" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "Compliance of structures with the High Speed Load Model (HSLM) dynamic load model", -- "high speed load model compliance"

### ontorail:DatatypeProperty era262:"Contact force permitted" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "Contact force permitted", -- "permitted contact force"

### ontorail:DatatypeProperty era262:"Current or power limitation on board required" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 == rdfs:domain => ++ :"Contact Line System", -- :"Track"

 == rdfs:label => ++ "Current or power limitation on board required", -- "current limitation required"

### ontorail:DatatypeProperty era262:"Document with the conditions for the use of eddy current brakes" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 ++ dcterms:source => <https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj>

 == rdfs:comment => ++ "Document with the conditions for the use of eddy current brakes.\nIn https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj 3.4.5 Permissibility to use Eddy-current brake.", -- "Document with the conditions for the use of eddy current brakes."

 == rdfs:label => ++ "Document with the conditions for the use of eddy current brakes", -- "eddy current braking conditions document"

 ++ routebookIndex => "3.4.5"

### ontorail:DatatypeProperty era262:"Document with the conditions for the use of magnetic brakes" modifications from era121:

 == dcterms:modified => ++ "2021-09-11", -- "2020-11-03"

 ++ dcterms:source => <https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj>

 == rdfs:comment => ++ "Document with the conditions for the use of magnetic brakes.\nIn https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj 3.4.6 Permissibility to use magnetic brake.", -- "Document with the conditions for the use of magnetic brakes."

 == rdfs:label => ++ "Document with the conditions for the use of magnetic brakes", -- "magnetic braking conditions document"

 ++ routebookIndex => "3.4.6"

### ontorail:DatatypeProperty era262:"Document with the procedure(s) for static and dynamic route compatibility checks" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 == rdfs:label => ++ "Document with the procedure(s) for static and dynamic route compatibility checks", -- "structure check document"

 == rdfs:range => ++ xsd:string, -- xsd:double

### ontorail:DatatypeProperty era262:"Document with the transversal section of the particular points requiring specific checks" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 == rdfs:label => ++ "Document with the transversal section of the particular points requiring specific checks", -- "gauging traversal document"

 == rinfIndex => "1.1.1.1.3.1.3", ++ "1.2.1.0.3.6"

### ontorail:DatatypeProperty era262:"Documents available by the IM relating to braking performance" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 == rdfs:label => ++ "Documents available by the IM relating to braking performance", -- "additional braking information document"

### ontorail:DatatypeProperty era262:"Energy supply system TSI compliant" modifications from era121:

 == dcterms:modified => ++ "2021-08-06", -- "2020-11-03"

 == rdfs:domain => ++ :"Contact Line System", -- :"Track"

 == rdfs:label => ++ "Energy supply system TSI compliant", -- "energy supply system TSI compliant"

### ontorail:DatatypeProperty era262:"Existence of severe climatic conditions" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 ++ isCoreParameter => "true"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "Existence of severe climatic conditions", -- "has severe weather conditions"

### ontorail:DatatypeProperty era262:"Existence of trackside hot axle box detector (HABD)" modifications from era121:

 == dcterms:modified => ++ "2021-09-11", -- "2020-11-03"

 ++ isCoreParameter => "true"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "Existence of trackside hot axle box detector (HABD)", -- "has axle box detector"

### ontorail:DatatypeProperty era262:"Generation of trackside HABD" modifications from era121:

 == dcterms:modified => ++ "2021-09-11", -- "2020-11-03"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "Generation of trackside HABD", -- "hot axle box detector generation"

### ontorail:DatatypeProperty era262:"Gradient profile" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 ++ dcterms:source => <https://rsm-evolution.org/220927\_RSM/EARoot/EA2/EA1/EA166.html>

 ++ isCoreParameter => "true"

 == rdfs:comment => ++ "Sequence of gradient values and locations of change in gradient.\nIn https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj 3.2.1 Gradient percentage, 3.2.2 Gradient location.", -- "Sequence of gradient values and locations of change in gradient."

 == rdfs:label => ++ "Gradient profile", -- "gradient profile"

 ++ routebookIndex => "3.2.1", "3.2.2"

### ontorail:DatatypeProperty era262:"Identification of trackside HABD" modifications from era121:

 == dcterms:modified => ++ "2021-09-11", -- "2020-11-03"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "Identification of trackside HABD", -- "hot axle box detector identification"

### ontorail:DatatypeProperty era262:"Maximum braking distance requested" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 ++ isCoreParameter => "true"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:comment => ++ "The maximum value of the braking distance [in meters] of a train shall be given for the maximum line speed.", -- "The maximum value of the braking distance [in metres] of a train shall be given for the maximum line speed."

 == rdfs:label => ++ "Maximum braking distance requested", -- "maximum braking distance"

### ontorail:DatatypeProperty era262:"Maximum contact wire height" modifications from era121:

 == dcterms:modified => ++ "2021-09-11", -- "2020-11-03"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b31", -- "f79e68fb8eeb842799a6f1f578bab0821b20"

 == rdfs:label => ++ "Maximum contact wire height", -- "maximum contact wire height"

### ontorail:DatatypeProperty era262:"Maximum current at standstill per pantograph" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 ++ dcterms:source => <https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj>

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:comment => ++ "Indication of the maximum allowable train current at standstill for DC systems expressed in amperes.\nIn https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj 3.3.8 Maximum current at standstill per pantograph.", -- "Indication of the maximum allowable train current at standstill for DC systems expressed in amperes."

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b27", -- "f79e68fb8eeb842799a6f1f578bab0821b19"

 == rdfs:label => ++ "Maximum current at standstill per pantograph", -- "maximum standstill current per pantograph"

 == rinfIndex => "1.1.1.2.2.3", ++ "1.2.2.0.6.1"

 ++ routebookIndex => "3.3.8"

### ontorail:DatatypeProperty era262:"Maximum permitted speed" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 ++ isCoreParameter => "true"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:comment => ++ "Nominal maximum operational speed on the line as a result of INF, ENE and CCS subsystem characteristics expressed in kilometres/hour.\nIn https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj 3.1.4 Maximum permissible speed for each track, including, if necessary, differential speeds relating to certain types of train.", -- "Nominal maximum operational speed on the line as a result of INF, ENE and CCS subsystem characteristics expressed in kilometres/hour."

 == rdfs:label => ++ "Maximum permitted speed", -- "maximum permitted speed"

 ++ routebookIndex => "3.1.4"

### ontorail:DatatypeProperty era262:"Maximum train deceleration" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 ++ isCoreParameter => "true"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "Maximum train deceleration", -- "maximum train deceleration"

### ontorail:DatatypeProperty era262:"Minimum contact wire height" modifications from era121:

 == dcterms:modified => ++ "2021-09-11", -- "2020-11-03"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b39", -- "f79e68fb8eeb842799a6f1f578bab0821b21"

 == rdfs:label => ++ "Minimum contact wire height", -- "minimum contact wire height"

### ontorail:DatatypeProperty era262:"Minimum radius of horizontal curve" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 ++ isCoreParameter => "true"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b40", -- "f79e68fb8eeb842799a6f1f578bab0821b12"

 == rdfs:label => ++ "Minimum radius of horizontal curve", -- "minimum horizontal radius"

 == rinfIndex => "1.1.1.1.3.7", ++ "1.2.2.0.3.2"

### ontorail:DatatypeProperty era262:"Minimum wheel diameter for fixed obtuse crossings" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 ++ isCoreParameter => "true"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b42", -- "f79e68fb8eeb842799a6f1f578bab0821b11"

 == rdfs:label => ++ "Minimum wheel diameter for fixed obtuse crossings", -- "minimum wheel diameter"

### ontorail:DatatypeProperty era262:"National classification for load capability" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 == rdfs:label => ++ "National classification for load capability", -- "national load capability"

### ontorail:DatatypeProperty era262:"National fire category of rolling stock required" modifications from era121:

 == dcterms:modified => ++ "2021-08-10", -- "2020-11-03"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "National fire category of rolling stock required", -- "national rolling stock fire category"

 == rinfIndex => "1.1.1.1.8.11", ++ "1.2.1.0.5.8", ++ "1.2.2.0.5.8"

### ontorail:DatatypeProperty era262:"OP TAF/TAP primary code" modifications from era121:

 == dcterms:modified => ++ "2021-08-11", -- "2020-07-29"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "OP TAF/TAP primary code", -- "TAF/TAP code"

 ++ rdfs:subPropertyOf => dcterms:identifier

 ++ rinfIndex => "1.2.0.0.0.3"

### ontorail:DatatypeProperty era262:"Permission for regenerative braking" modifications from era121:

 == dcterms:modified => ++ "2021-08-06", -- "2020-11-03"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:domain => ++ :"Vehicle Type", -- "f79e68fb8eeb842799a6f1f578bab0821b18"

 == rdfs:label => ++ "Permission for regenerative braking", -- "has regenerative brake"

 -- rinfIndex => "1.1.1.2.2.4"

### ontorail:DatatypeProperty era262:"Railway location of particular points requiring specific checks" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 == rdfs:label => ++ "Railway location of particular points requiring specific checks", -- "gauging check location"

 == rdfs:range => ++ xsd:string, -- xsd:double

 == rinfIndex => "1.1.1.1.3.1.2", ++ "1.2.1.0.3.5"

### ontorail:DatatypeProperty era262:"Railway location of structures requiring specific checks" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 == rdfs:label => ++ "Railway location of structures requiring specific checks", -- "structure check location"

### ontorail:DatatypeProperty era262:"Railway location of trackside HABD" modifications from era121:

 == dcterms:modified => ++ "2021-09-11", -- "2020-11-03"

 == rdfs:label => ++ "Railway location of trackside HABD", -- "hot axle box detector location"

### ontorail:DatatypeProperty era262:"Requirements for number of raised pantographs and spacing between them, at the given speed" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 ++ dcterms:source => <https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj>

 == rdfs:comment => ++ "Indication of maximum number of raised pantographs per train allowed and minimum spacing centre line to centre line of adjacent pantograph heads, expressed in metres, at the given speed.\nIn https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj 3.3.4 Restriction related to the position of Multiple Traction unit(s) to comply with contact line separation (position of pantograph)", -- "Indication of maximum number of raised pantographs per train allowed and minimum spacing centre line to centre line of adjacent pantograph heads, expressed in metres, at the given speed."

 == rdfs:label => ++ "Requirements for number of raised pantographs and spacing between them, at the given speed", -- "raised pantographs distance and speed"

 ++ routebookIndex => "3.3.4"

### ontorail:DatatypeProperty era262:"Temperature range (maximum)" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 ++ isCoreParameter => "true"

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b32", -- "f79e68fb8eeb842799a6f1f578bab0821b16"

 == rdfs:label => ++ "Temperature range (maximum)", -- "maximum temperature"

### ontorail:DatatypeProperty era262:"Temperature range (minimum)" modifications from era121:

 == dcterms:modified => ++ "2021-09-10", -- "2020-11-03"

 ++ isCoreParameter => "true"

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b41", -- "f79e68fb8eeb842799a6f1f578bab0821b15"

 == rdfs:label => ++ "Temperature range (minimum)", -- "minimum temperature"

### ontorail:DatatypeProperty era262:"Trackside HABD TSI compliant" modifications from era121:

 == dcterms:modified => ++ "2021-09-11", -- "2020-11-03"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "Trackside HABD TSI compliant", -- "hot axle box detector TSI compliant"

### ontorail:DatatypeProperty era262:"Train integrity confirmation from on-board necessary for line access" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 ++ isCoreParameter => "true"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:label => ++ "Train integrity confirmation from on-board necessary for line access", -- "train integrity on-board required"

### ontorail:DatatypeProperty era262:"Umax2 for lines referred to in sections 7.4.2.2.1 and 7.4.2.11.1 of Regulation (EU)1301/2014." modifications from era121:

 == dcterms:modified => ++ "2021-08-06", -- "2020-11-03"

 == rdfs:domain => ++ :"Contact Line System", -- :"Track"

 == rdfs:label => ++ "Umax2 for lines referred to in sections 7.4.2.2.1 and 7.4.2.11.1 of Regulation (EU)1301/2014.", -- "umax2"

 == rdfs:range => ++ xsd:integer, -- xsd:string

### ontorail:DatatypeProperty era262:"Unique OP ID" modifications from era121:

 == dcterms:modified => ++ "2021-08-11", -- "2020-07-29"

 ++ dcterms:source => <https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj>

 ++ isCoreParameter => "true"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:comment => ++ "Code composed of country code and alphanumeric operational point code, as defined in RINF.\nIn https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj 2.2.2 Principal locations (stations, yards, junctions, freight terminals) and their position relative to the line.", -- "Code composed of country code and alphanumeric operational point code, as defined in RINF."

 == rdfs:label => ++ "Unique OP ID", -- "unique operational point id"

 ++ rdfs:subPropertyOf => dcterms:identifier

 ++ rinfIndex => "1.2.0.0.0.2"

 ++ routebookIndex => "2.2.2"

### ontorail:DatatypeProperty era262:"Use of group 555" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:domain => ++ "fb5ac6ce34d44445bb7d8f3dd9219fd37b43", -- "f79e68fb8eeb842799a6f1f578bab0821b24"

 == rdfs:label => ++ "Use of group 555", -- "uses group 555"

### ontorail:DatatypeProperty era262:"alternative name" modifications from era121:

 ++ eratvIndex => "1.2"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"axle spacing" modifications from era121:

 == dcterms:modified => ++ "2021-08-26", -- "2020-11-03"

 == rdf:type => ++ :DatatypeProperty, ++ owl:DatatypeProperty, ++ owl:FunctionalProperty, -- :ObjectProperty, -- owl:ObjectProperty

 == rdfs:range => ++ xsd:string, -- <http://era.europa.eu/concepts/axle-positions#AxlePosition>

### ontorail:DatatypeProperty era262:"brake weight percentage" modifications from era121:

 == dcterms:modified => ++ "2021-08-26", -- "2020-11-03"

 == rdf:type => ++ :DatatypeProperty, ++ owl:DatatypeProperty, ++ owl:FunctionalProperty, -- :ObjectProperty, -- owl:ObjectProperty

 == rdfs:range => ++ xsd:string, -- <http://era.europa.eu/concepts/brake-weight-percentages#BrakeWeightPercentage>

### ontorail:DatatypeProperty era262:"conditional regenerative brake" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 == rdfs:domain => ++ :"Contact Line System", -- :"Track"

### ontorail:DatatypeProperty era262:"design mass in working order" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"design mass under exceptional payload" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"design mass under normal payload" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"eddy current brake prevention" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"emergency braking" modifications from era121:

 == dcterms:modified => ++ "2021-08-26", -- "2020-11-03"

 == rdf:type => ++ :DatatypeProperty, ++ owl:DatatypeProperty, ++ owl:FunctionalProperty, -- :ObjectProperty, -- owl:ObjectProperty

 == rdfs:range => ++ xsd:string, -- <http://era.europa.eu/concepts/emergency-braking-profiles#EmergencyBrakingProfile>

### ontorail:DatatypeProperty era262:"has automatic dropping device" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"has current limitation" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"has train integrity confirmation" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:domain => ++ :"Vehicle Type", -- :"Track"

### ontorail:DatatypeProperty era262:kilometer modifications from era121:

 ++ dcterms:source => <https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj>

 == rdfs:comment => ++ "Distance measured in kilometers from the origin of a national railway line.\nIn https://eur-lex.europa.eu/eli/reg\_impl/2019/773/oj 2.2.2 Principal locations (stations, yards, junctions, freight terminals) and their position relative to the line.", -- "Distance measured from the origin of a national railway line."

 ++ routebookIndex => "2.2.2"

### ontorail:DatatypeProperty era262:"magnetic brake prevention" modifications from era121:

 == dcterms:modified => ++ "2021-04-13", -- "2020-11-03"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"maximum design speed" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"maximum speed and cant deficiency" modifications from era121:

 == dcterms:modified => ++ "2021-08-02", -- "2020-11-03"

 == rdf:type => ++ :DatatypeProperty, ++ owl:DatatypeProperty, ++ owl:FunctionalProperty, -- :ObjectProperty, -- owl:ObjectProperty

 == rdfs:comment => ++ "Combination of maximum speed and maximum cant deficiency for which the vehicle was assessed.\n\nThis property was before an object skos property. The values for this property do not come from a list of predefined values. Thus, the original object property was replaced by this datatype property with range xsd:string.", -- "Combination of maximum speed and maximum cant deficiency for which the vehicle was assessed."

 == rdfs:range => ++ xsd:string, -- <http://era.europa.eu/concepts/max-speed-cant-deficiency#MaxSpeedCantDeficiency>

### ontorail:DatatypeProperty era262:"minimum concave vertical radius" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"minimum convex vertical radius" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"minimum radius of vertical curve" modifications from era121:

 == dcterms:modified => ++ "2021-09-12", -- "2020-11-03"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:domain => ++ :"Siding", -- :"Track"

 == rdfs:label => ++ "minimum radius of vertical curve", -- "minimum vertical curve radius"

### ontorail:DatatypeProperty era262:"number of pantographs in contact with OCL" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"parking brake maximum gradient" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"permissible payload" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"prevent regenerative brake use" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"shortest distance between pantographs in contact with OCL" modifications from era121:

 == dcterms:modified => ++ "2021-09-15", -- "2020-11-19"

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

 == rdfs:range => ++ xsd:string, -- xsd:double

### ontorail:DatatypeProperty era262:"static axle load in working order" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"static axle load under exceptional payload" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"static axle load under normal payload" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"thermal capacity distance" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"thermal capacity gradient" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"thermal capacity speed" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"thermal capacity time" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"type version number" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty

### ontorail:DatatypeProperty era262:"vehicle contact force" modifications from era121:

 == rdf:type => :DatatypeProperty, owl:DatatypeProperty, ++ owl:FunctionalProperty