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Public transport — Reference data model

Part 9: Informative documentation

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Annex A Model Evolution 369

European foreword

This document (CEN/TR 12896-9:2016) has been prepared by Technical Committee CEN/TC 278 “Intelligent transport systems”, the secretariat of which is held by NEN.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

The Transmodel v6 series is composed of the following documents:

- Public Transport Reference Data Model - Part 1: Common Concepts
- Public Transport Reference Data Model - Part 2: Public Transport Network
- Public Transport Reference Data Model - Part 3: Timing Information and Vehicle Scheduling
- Public Transport Reference Data Model - Part 4: Operations Monitoring and Control*
- Public Transport Reference Data Model - Part 5: Fare Management*
- Public Transport Reference Data Model - Part 6: Passenger Information*
- Public Transport Reference Data Model - Part 7: Driver Management*
- Public Transport Reference Data Model - Part 8: Management Information and Statistics*

(* - these Parts are not yet published)

Together these eight Parts create version 6 of the European Standard EN 12896, known as “Transmodel” and thus replace Transmodel V5.1.

The split into eight Parts intends to ease the task of users interested in particular functional domains. Modularisation of Transmodel, undertaken within the NeTEx project, has contributed significantly to this new edition of Transmodel.

This informative document provides supplementary information to that contained in the formal European Standard to help those implementing the Standard.

1 Scope

This Technical Report documents further information related to parts 1, 2 and 3 of version 6 of the "Public Transport – Reference Data Model" (Transmodel) European Standard, EN 12896. This Technical Report will be extended and re-published with additional information when Parts 4, 5, 6, 7, and 8 of the Transmodel standard are published in due course.

The various sections of the document provide

- A Complete Data Dictionary (merging and extending the information contained in each separate Part of the Standard that has been published to date) [Clause 2];
- An overview of the whole of Transmodel to provide an understanding of how the model is structured and how each component model links with other components [Clause 3];
- A set of Frequently Asked Questions to help those new to Transmodel to understand the basics of the Reference Data Model [Clause 4];
- An outline of the main questions which are addressed in a separate web-based on-line tutorial (that itself will be updated from time to time in the light of feedback received from users of the Standard) [Clause 5];
- An Annex providing a table which shows the evolution of the terms used in Transmodel v6 from the previous Transmodel v5.1 and IFOPT European Standards and from the NeTEx Technical Specification [Annex A].

2 Complete Data Dictionary

2.1 General

The Data Types shown in the tables in this section are not mandatory.

2.2 Transmodel 6 - Attributes Tables Documentation

ACCESS

(Transmodel v6.Part 1 - Common Concepts (CC).CC Generic Framework MODEL.CC Generic Place MODEL.ACCESS)

The physical (spatial) possibility for a passenger to access or leave the public transport system. This link may be used during a trip for:- the walking movement of a passenger from a PLACE (origin of the trip) to a SCHEDULED STOP POINT (origin of the PT TRIP), or- the walking movement from a SCHEDULED STOP POINT (destination of the PT TRIP) to a PLACE (destination of the trip).

ACCESS – Relations

Source	Target
ACCESS Role: Cardinality: Relation type: Generalization	TRANSFER Role: Cardinality:
ACCESS END Role: end of Cardinality: 1 Relation type: Association	ACCESS Role: to Cardinality: 0..*
ACCESS END Role: start of Cardinality: 1 Relation type: Association	ACCESS Role: from Cardinality: 0..*
ACCESS Role: Cardinality: * Relation type: Aggregation	SITE FRAME Role: Cardinality:

ACCESS – Attributes

Classifi- cation	Name	Type	cardinality	Description
::>	::>	TRANSFER	::>	ACCESS inherits from TRANSFER
«UID»	Id	AccessIdType	1:1	Identifier of ACCESS link.

ACCESS END

(Transmodel v6.Part 1 - Common Concepts (CC).CC Generic Framework MODEL.CC Generic Place MODEL.ACCESS END)

Origin or destination end of an ACCESS link. May indicate a POINT and/or PLACE.

ACCESS END – Relations

Source	Target
ACCESS END <i>Role: a view of</i> <i>Cardinality: 0..*</i> <i>Relation type: Association</i>	PLACE <i>Role: viewed as</i> <i>Cardinality: 0..1</i>
ACCESS END <i>Role: end of</i> <i>Cardinality: 1</i> <i>Relation type: Association</i>	ACCESS <i>Role: to</i> <i>Cardinality: 0..*</i>
ACCESS END <i>Role: a view of</i> <i>Cardinality: 0..*</i> <i>Relation type: Association</i>	POINT <i>Role: viewed as</i> <i>Cardinality: 0..1</i>
ACCESS END <i>Role: start of</i> <i>Cardinality: 1</i> <i>Relation type: Association</i>	ACCESS <i>Role: from</i> <i>Cardinality: 0..*</i>

ACCESS END – Attributes

Classifi- cation	Name	Type	cardinality	Description
-	-	-	-	-

ACCESS MODE

(Transmodel v6.Part 1 - Common Concepts (CC).CC Reusable Components MODEL.CC Transport Mode MODEL.ACCESS MODE)

A characterisation of the passenger movement according to the means of transport different from public transport (e.g. walk, bicycle, etc)

ACCESS MODE – Relations

Source	Target
ACCESS MODE <i>Role:</i> <i>Cardinality:</i> <i>Relation type: Generalization</i>	MODE <i>Role:</i> <i>Cardinality:</i>
NAVIGATION PATH <i>Role: accessed by</i> <i>Cardinality: 0..*</i> <i>Relation type: Association</i>	ACCESS MODE <i>Role: for</i> <i>Cardinality: 0..*</i>
SITE ELEMENT <i>Role: accessed by</i> <i>Cardinality: 0..*</i> <i>Relation type: Association</i>	ACCESS MODE <i>Role: for</i> <i>Cardinality: 0..*</i>

ACCESS MODE – Attributes

Classifi- cation	Name	Type	cardinality	Description
::>	::>	MODE	::>	ACCESS MODE inherits from MODE
«UID»	Id		1:1	Identifier of ACCESS MODE.

ACCESS SPACE

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).FO Fixed Object MODEL .NT Stop Place MODEL.ACCESS SPACE)

A passenger area within a STOP PLACE such as a concourse or booking hall, immigration hall or security area that is accessible by passengers, but without a direct access to vehicles. Direct access to a VEHICLE is always from a QUAY and/or BOARDING POSITION. An ACCESS SPACE may be a Room, Hall, Concourse, Corridor, or bounded open space within a STOP PLACE.

ACCESS SPACE – Relations

Source	Target
ACCESS SPACE Role: Cardinality: Relation type: Generalization	STOP PLACE SPACE Role: Cardinality:
ACCESS SPACE Role: in Cardinality: 0..* Relation type: Aggregation	STOP PLACE Role: containing Cardinality: 1
ACCESS SPACE Role: classified as Cardinality: 0..* Relation type: Association	TYPE OF PASSAGE Role: a classification for Cardinality: 0..1
ACCESS SPACE Role: Cardinality: 0..* Relation type: Association	ACCESS SPACE Role: Cardinality: 1

ACCESS SPACE – Attributes

Classification	Name	Type	cardinality	Description
::>	::>	STOP PLACE SPACE	::>	ACCESS SPACE inherits from STOP PLACE SPACE
«UID»	Id	AccessSpaceIdType	1:1	Identifier of ACCESS SPACE.
	AccessSpaceType	AccessSpaceTypeEnum	0:1	Type of ACCESS SPACE.

ACCESS ZONE

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).FO Fixed Object MODEL .NT Site MODEL.ACCESS ZONE)

A ZONE for which the duration to cover any ACCESS link to a particular SCHEDULED STOP POINT is the same.

ACCESS ZONE – Relations

Source	Target
ACCESS ZONE Role: Cardinality: Relation type: Generalization	ZONE Role: Cardinality:
SITE Role: a reference for Cardinality: 0..1 Relation type: Association	ACCESS ZONE Role: referenced by Cardinality: 0..*

ACCESS ZONE – Attributes

Classifi- cation	Name	Type	cardinality	Description
::>	::>	ZONE	::>	ACCESS ZONE inherits from ZONE
«UID»	Id	AccessZoneIdType	1:1	Identifier of ACCESS ZONE.

ACCESSIBILITY ASSESSMENT

(Transmodel v6.Part 1 - Common Concepts (CC).CC Generic Framework MODEL.CC Generic Accessibility MODEL.ACCESSIBILITY ASSESSMENT)

The accessibility characteristics of an entity used by passengers such as a STOP PLACE, or a STOP PLACE COMPONENT. Described by ACCESSIBILITY LIMITATIONS, and/or a set of SUITABILITIES

ACCESSIBILITY ASSESSMENT – Relations

Source	Target
ACTUAL VEHICLE EQUIPMENT Role: for Cardinality: 0..1 Relation type: Association	ACCESSIBILITY ASSESSMENT Role: suitable Cardinality: 0..1
ACCESSIBILITY ASSESSMENT Role: determined by Cardinality: 0..* Relation type: Association	AVAILABILITY CONDITION Role: determining Cardinality: 0..*
SUITABILITY Role: determining Cardinality: 0..* Relation type: Aggregation	ACCESSIBILITY ASSESSMENT Role: convenient for Cardinality: 1
ACCESSIBILITY LIMITATION Role: determining Cardinality: 0..* Relation type: Aggregation	ACCESSIBILITY ASSESSMENT Role: limited by Cardinality: 1
VALIDITY CONDITION Role: determining Cardinality: 0..* Relation type: Aggregation	ACCESSIBILITY ASSESSMENT Role: determined by Cardinality: 0..*
NAVIGATION PATH Role: characterised by Cardinality: 0..1 Relation type: Association	ACCESSIBILITY ASSESSMENT Role: characterising Cardinality: 0..*
ACCESSIBILITY ASSESSMENT Role: characterising Cardinality: 0..* Relation type: Aggregation	PATH LINK Role: characterised by Cardinality: 0..1
ACCESSIBILITY ASSESSMENT Role: characterising Cardinality: 0..1 Relation type: Aggregation	SITE ELEMENT Role: characterised by Cardinality: 0..1
ACCESSIBILITY ASSESSMENT Role: characterising Cardinality: 0..1 Relation type: Association	LINE Role: characterised by Cardinality: 0..1
JOURNEY Role: characterised by Cardinality: 0..1 Relation type: Association	ACCESSIBILITY ASSESSMENT Role: characterising Cardinality: 0..1

ACCESSIBILITY ASSESSMENT – Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id	<i>AssesmentIdType</i>	1:1	Identifier of ACCESSIBILITY ASSESSMENT.
	MobilityImpairedAccess	<i>boolean</i>	0:1	Whether the overall assessment is that there is Access for Mobility Impaired users.

ACCESSIBILITY LIMITATION

(Transmodel v6.Part 1 - Common Concepts (CC).CC Generic Framework MODEL.CC Generic Accessibility MODEL.ACCESSIBILITY LIMITATION)

A categorisation of the accessibility characteristics of a SITE, e.g. a STOP PLACE or a STOP PLACE COMPONENT to indicate its usability by passengers with specific needs, for example, those needing wheelchair access, step-free access or wanting to avoid confined spaces such as lifts. A small number of well-defined categories are used that are chosen to allow the consistent capture of data and the efficient computation of routes for different classes of user.

ACCESSIBILITY LIMITATION – Relations

Source	Target
ACCESSIBILITY LIMITATION <i>Role:</i> classified by <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	TYPE OF ACCESSIBILITY LIMITATION <i>Role:</i> a classification for <i>Cardinality:</i> 1
ACCESSIBILITY LIMITATION <i>Role:</i> determining <i>Cardinality:</i> 0..* <i>Relation type:</i> Aggregation	ACCESSIBILITY ASSESSMENT <i>Role:</i> limited by <i>Cardinality:</i> 1

ACCESSIBILITY LIMITATION – Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id	<i>LimitationIdType</i>	1:1	Identifier of ACCESSIBILITY LIMITATION.
	WheelchairAccess	<i>LimitationStatusEnum</i>	0:1	Whether there is Access for Wheelchair users.
	StepFreeAccess	<i>LimitationStatusEnum</i>	0:1	Whether there is Step Free Access..
	EscalatorFreeAccess	<i>LimitationStatusEnum</i>	0:1	Whether there is Escalator Free Access..
	LiftFreeAccess	<i>LimitationStatusEnum</i>	0:1	Whether there is Lift Free Access..
	AudibleSignsAvailable	<i>LimitationStatusEnum</i>	0:1	Whether there are Audible Signs.
	VisualSignsAvailable	<i>LimitationStatusEnum</i>	0:1	Whether there are Visual Signs.

ACCOMMODATION

(Transmodel v6.Part 1 - Common Concepts (CC).CC Reusable Components MODEL.CC Facility MODEL.ACCOMODATION)

A combination of accommodation characteristics available on a service, e.g. "First Class Couchette with shower and 2 bunks".

ACCOMMODATION – Relations

Source	Target
ACCOMMODATION <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Generalization	SERVICE FACILITY SET <i>Role:</i> <i>Cardinality:</i>

ACCOMMODATION – Attributes

Classification	Name	Type	cardinality	Description
::>	::>	SERVICE FACILITY SET	::>	ACCOMMODATION inherits from SERVICE FACILITY SET
	FareClass	FareClassEnum	0:1	FARE CLASS of ACCOMMODATION.
	AccommodationFacility	AccommodationFacilityEnum	0:1	Type of accommodation Facility in ACCOMMODATION.
	Name	MultilingualString	0:1	Name of ACCOMMODATION.
	CouretteFacility	CouretteFacilityEnum	0:1	Toilet Facility in ACCOMMODATION.
	ShowerFacility	SanitaryFacilityEnum	0:1	Shower Facility in ACCOMMODATION.
	ToiletFacility	SanitaryFacilityEnum	0:1	Toilet Facility in ACCOMMODATION
«UID»	Id		1:1	Identifier of ACCOMMODATION.
	Gender	GenderLimitationEnum	0:1	
	BerthType	BerthTypeEnum	0:1	Berth levels in compartment
	NuisanceFacility	NuisanceFacilityEnum	0:*	Nuisance Facility in ACCOMMODATION

ACTIVATED EQUIPMENT

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).ND Network Description MODEL.NT Activation MODEL.ACTIVATED EQUIPMENT)

An equipment activated by the passage of a vehicle at an ACTIVATION POINT or on an ACTIVATION LINK.

ACTIVATED EQUIPMENT – Relations

Source	Target
ACTIVATED EQUIPMENT <i>Role:</i> related to <i>Cardinality:</i> * <i>Relation type:</i> Association	TRAFFIC CONTROL POINT <i>Role:</i> controlled by <i>Cardinality:</i> 1..*
ACTIVATED EQUIPMENT <i>Role:</i> used to define <i>Cardinality:</i> 1 <i>Relation type:</i> Association	ACTIVATION ASSIGNMENT <i>Role:</i> for <i>Cardinality:</i> *
ACTIVATED EQUIPMENT <i>Role:</i> used to trigger <i>Cardinality:</i> * <i>Relation type:</i> Association	TYPE OF ACTIVATION <i>Role:</i> triggered by <i>Cardinality:</i> 1..*

ACTIVATED EQUIPMENT – Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id	ActivatedEquipmentIdType	1:1	Identifier of ACTIVATED EQUIPMENT.

ACTIVATION ASSIGNMENT

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).ND Network Description MODEL.NT Activation MODEL.ACTIVATION ASSIGNMENT)

An assignment of an ACTIVATION POINT/LINK to an ACTIVATED EQUIPMENT related on its turn to a TRAFFIC CONTROL POINT. The considered ACTIVATION POINT/LINK will be used to influence the control process for that TRAFFIC CONTROL POINT (e.g. to fix priorities as regards the processing of competing requests from different ACTIVATION POINTs/LINKs).

ACTIVATION ASSIGNMENT – Relations

Source	Target
ACTIVATED EQUIPMENT Role: used to define Cardinality: 1 Relation type: Association	ACTIVATION ASSIGNMENT Role: for Cardinality: *
ACTIVATION LINK Role: used to define Cardinality: 1 Relation type: Association	ACTIVATION ASSIGNMENT Role: for Cardinality: *
ACTIVATION POINT Role: used to define Cardinality: 1 Relation type: Association	ACTIVATION ASSIGNMENT Role: for Cardinality: *

ACTIVATION ASSIGNMENT – Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id	ActivatedAssignmentIdType	1:1	Identifier of ACTIVATION ASSIGNMENT.
	Order	positiveInteger	0:1	Order of ASSIGNMENT relative to other ASSIGNMENTs.

ACTIVATION LINK

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).ND Network Description MODEL.NT Activation MODEL.ACTIVATION LINK)

A LINK where a control process is activated when a vehicle passes it.

ACTIVATION LINK – Relations

Source	Target
ACTIVATION LINK Role: used to define Cardinality: 1 Relation type: Association	ACTIVATION ASSIGNMENT Role: for Cardinality: *
ACTIVATION LINK Role: to Cardinality: * Relation type: Association	ACTIVATION POINT Role: end of Cardinality: 1
ACTIVATION POINT Role: start of Cardinality: 1 Relation type: Association	ACTIVATION LINK Role: from Cardinality: *
ACTIVATION LINK Role: used to trigger Cardinality: *	TYPE OF ACTIVATION Role: triggered along Cardinality: 1..*

<i>Relation type:</i> Association	
ACTIVATION LINK <i>Role:</i> <i>Cardinality:</i> 0..* <i>Relation type:</i> Aggregation	INFRASTRUCTURE FRAME <i>Role:</i> <i>Cardinality:</i>

ACTIVATION LINK – Attributes

Classifi- cation	Name	Type	cardinality	Description
«UID»	Id	<i>ActivationLinkIdType</i>	1:1	Identifier of ACTIVATION LINK.

ACTIVATION POINT

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).ND Network Description MODEL.NT Activation MODEL.ACTIVATION POINT)

A POINT where a control process is activated when a vehicle passes it. Equipment may be needed for the activation.

ACTIVATION POINT – Relations

Source	Target
ACTIVATION LINK <i>Role:</i> to <i>Cardinality:</i> * <i>Relation type:</i> Association	ACTIVATION POINT <i>Role:</i> end of <i>Cardinality:</i> 1
ACTIVATION POINT <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Generalization	POINT <i>Role:</i> <i>Cardinality:</i>
ACTIVATION POINT <i>Role:</i> used to define <i>Cardinality:</i> 1 <i>Relation type:</i> Association	ACTIVATION ASSIGNMENT <i>Role:</i> for <i>Cardinality:</i> *
ACTIVATION POINT <i>Role:</i> located in <i>Cardinality:</i> * <i>Relation type:</i> Association	TARIFF ZONE <i>Role:</i> including <i>Cardinality:</i> *
BEACON POINT <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Generalization	ACTIVATION POINT <i>Role:</i> <i>Cardinality:</i>
ACTIVATION POINT <i>Role:</i> start of <i>Cardinality:</i> 1 <i>Relation type:</i> Association	ACTIVATION LINK <i>Role:</i> from <i>Cardinality:</i> *
ACTIVATION POINT <i>Role:</i> used to trigger <i>Cardinality:</i> * <i>Relation type:</i> Association	TYPE OF ACTIVATION <i>Role:</i> triggered at <i>Cardinality:</i> 1..*
ACTIVATION POINT <i>Role:</i> <i>Cardinality:</i> 0..* <i>Relation type:</i> Aggregation	INFRASTRUCTURE FRAME <i>Role:</i> <i>Cardinality:</i>

ACTIVATION POINT – Attributes

Classifi- cation	Name	Type	cardinality	Description
::>	::>	<i>POINT</i>	::>	ACTIVATION POINT inherits from POINT
«UID»	Id	<i>ActivationPointIdType</i>	1:1	Identifier of ACTIVATION POINT.
	ActivationPointNumber	<i>normalizedString</i>	0:1	Number of ACTIVATION POINT.
	ShortName	<i>MultilingualString</i>	0:1	Short Name of ACTIVATION POINT.

ACTUAL VEHICLE EQUIPMENT

(Transmodel v6.Part 1 - Common Concepts (CC).CC Reusable Components MODEL.CC Actual Vehicle Equipment MODEL.ACTUAL VEHICLE EQUIPMENT)

An item of equipment of a particular type in an individual VEHICLE.

ACTUAL VEHICLE EQUIPMENT – Relations

Source	Target
TRAIN ELEMENT Role: equipped with Cardinality: 1 Relation type: Association	ACTUAL VEHICLE EQUIPMENT Role: in Cardinality: *
ACTUAL VEHICLE EQUIPMENT Role: in Cardinality: * Relation type: Association	VEHICLE TYPE Role: equipped with Cardinality: 1
WHEELCHAIR VEHICLE EQUIPMENT Role: Cardinality: Relation type: Generalization	ACTUAL VEHICLE EQUIPMENT Role: Cardinality:
VEHICLE ACCESS EQUIPMENT Role: Cardinality: Relation type: Generalization	ACTUAL VEHICLE EQUIPMENT Role: Cardinality:
ACTUAL VEHICLE EQUIPMENT Role: in Cardinality: 0..* Relation type: Aggregation	VEHICLE Role: equipped with Cardinality: 1
ACTUAL VEHICLE EQUIPMENT Role: Cardinality: Relation type: Generalization	INSTALLED EQUIPMENT Role: Cardinality:
ACTUAL VEHICLE EQUIPMENT Role: for Cardinality: 0..1 Relation type: Association	ACCESSIBILITY ASSESSMENT Role: suitable Cardinality: 0..1
PASSENGER EQUIPMENT Role: used as Cardinality: 0..1 Relation type: Association	ACTUAL VEHICLE EQUIPMENT Role: using Cardinality: 0..1

ACTUAL VEHICLE EQUIPMENT – Attributes

Classifi- cation	Name	Type	cardinality	Description
::>	::>	INSTALLED EQUIPMENT	::>	ACTUAL VEHICLE EQUIPMENT inherits from INSTALLED EQUIPMENT
«UID»	Id	<i>ActualVehicleEquipmentId Type</i>	1:1	Identifier of ACTUAL VEHICLE EQUIPMENT.
	Units	<i>nonNegativeInteger</i>	0:1	How many instances of ACTUAL VEHICLE EQUIPMENT there are on vehicle.

ADDRESS

(Transmodel v6.Part 1 - Common Concepts (CC).CC Reusable Components MODEL.CC Topographic Place MODEL.ADDRESS)

The descriptive data associated with a PLACE that can be used to describe the unique geographical context of a PLACE for the purposes of identifying it. May be refined as either a ROAD ADDRESS, a POSTAL ADDRESS or both.

ADDRESS – Relations

Source	Target
COUNTRY Role: hosting Cardinality: 1 Relation type: Association	ADDRESS Role: hosted by Cardinality: 0..*
POSTAL ADDRESS Role: Cardinality: Relation type: Generalization	ADDRESS Role: Cardinality:
ROAD ADDRESS Role: Cardinality: Relation type: Generalization	ADDRESS Role: Cardinality:
ADDRESSABLE PLACE Role: described by Cardinality: 1 Relation type: Association	ADDRESS Role: describing Cardinality: 0..*
ADDRESS Role: Cardinality: * Relation type: Aggregation	SITE FRAME Role: Cardinality:

ADDRESS – Attributes

Classifi- cation	Name	Type	cardinality	Description
«UID»	Id	<i>AddressIdType</i>	1:1	Identifier of a ADDRESS.
	ShortName	<i>MultilingualString</i>	0:1	Short name of a ADDRESS.

ADDRESSABLE PLACE

(Transmodel v6.Part 1 - Common Concepts (CC).CC Reusable Components MODEL.CC Topographic Place MODEL.ADDRESSABLE PLACE)

A type of PLACE to which passengers may refer to indicate the origin or a destination of a trip and that is so specific that it has an ADDRESS.

ADDRESSABLE PLACE – Relations

Source	Target
ADDRESSABLE PLACE <i>Role:</i> described by <i>Cardinality:</i> 1 <i>Relation type:</i> Association	ADDRESS <i>Role:</i> describing <i>Cardinality:</i> 0..*
ADDRESSABLE PLACE <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Generalization	PLACE <i>Role:</i> <i>Cardinality:</i>
SITE ELEMENT <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Generalization	ADDRESSABLE PLACE <i>Role:</i> <i>Cardinality:</i>

ADDRESSABLE PLACE – Attributes

Classification	Name	Type	cardinality	Description
::>	::>	PLACE	::>	ADDRESSABLE PLACE inherits from PLACE
	Image	anyUri	0:1	Image associated with ADDRESSABLE PLACE..
	Url	anyUri	0:1	URL associated with ADDRESSABLE PLACE..

ADMINISTRATIVE ZONE

(Transmodel v6.Part 1 - Common Concepts (CC).CC Responsibility MODEL .CC Generic Organisation MODEL.ADMINISTRATIVE ZONE)

The area of a district, a region, a city, a municipality, or other area with which an ORGANIZATION has a RESPONSIBILITY ROLE.

ADMINISTRATIVE ZONE – Relations

Source	Target
AUTHORITY Role: managing Cardinality: 1 Relation type: Association	ADMINISTRATIVE ZONE Role: managed by Cardinality: *
ADMINISTRATIVE ZONE Role: Cardinality: Relation type: Generalization	ZONE Role: Cardinality:
ADMINISTRATIVE ZONE Role: managed by Cardinality: 0..* Relation type: Association	ORGANISATION PART Role: managing Cardinality: 1
ADMINISTRATIVE ZONE Role: in charge of Cardinality: 0..1 Relation type: Association	RESPONSIBILITY ROLE ASSIGNMENT Role: delegated to Cardinality: 0..*
ADMINISTRATIVE ZONE Role: Cardinality: 1 Relation type: Association	CLASS IN REPOSITORY Role: Cardinality: 0..*
ENTITY IN VERSION Role: referring to Cardinality: 0..* Relation type: Association	ADMINISTRATIVE ZONE Role: Cardinality: 1..

ADMINISTRATIVE ZONE – Attributes

Classification	Name	Type	cardinality	Description
::>	::>	ZONE	::>	ADMINISTRATIVE ZONE inherits from ZONE
«UID»	id	AdministrativeZoneIdType	1:1	Identifier of an ADMINISTRATIVE ZONE.
	ShortName	MultilingualString	0:1	Short name of ADMINISTRATIVE ZONE..

ALLOWED LINE DIRECTION

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).ND NetworkD Description MODEL.NT Route MODEL.ALLOWED LINE DIRECTION)

An allowed DIRECTION that can be used on a given ROUTE. This can be used to validate the selection of allowed values.

ALLOWED LINE DIRECTION – Relations

Source	Target
ALLOWED LINE DIRECTION Role: used by Cardinality: 0..* Relation type: Aggregation	LINE Role: uses Cardinality: 1
ALLOWED LINE DIRECTION Role: allowed for Cardinality: 0..* Relation type: Association	DIRECTION Role: allowing for Cardinality: 1

ALLOWED LINE DIRECTION – Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id	<i>AllowedDirectionIdType</i>	1:1	Identifier of ALLOWED LINE DIRECTION.

ALTERNATIVE NAME

(Transmodel v6.Part 1 - Common Concepts (CC).CC Reusable Components MODEL.CC Alternative Name MODEL.ALTERNATIVE NAME)

Alternative name for the entity.

ALTERNATIVE NAME – Relations

Source	Target
ALTERNATIVE NAME Role: alias for Cardinality: 0..* Relation type: Aggregation	SITE ELEMENT Role: provided with Cardinality: 1
ALTERNATIVE NAME Role: alias for Cardinality: 0..* Relation type: Aggregation	ENTITY Role: provided with Cardinality: 1
ALTERNATIVE NAME Role: alias for Cardinality: 0..* Relation type: Aggregation	PLACE Role: provided with Cardinality: 1

ALTERNATIVE NAME – Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id	<i>AliasIdType</i>	1:1	Identifier of alternative name.
	NameType	<i>NameTypeEnum</i>	0:1	Type of alternative name.
	ShortName	<i>MultilingualString</i>	0:1	Short version of alternative name.
	Abbreviation	<i>MultilingualString</i>	0:1	Abbreviation associated with alternative name.

	Name	<i>MultilingualString</i>	0:1	Text for alternative name.
	QualifierName	<i>MultilingualString</i>	0:1	Name used to qualify alternative name .

ASSISTANCE SERVICE

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).FO Fixed Object MODEL .NT Equipment Description MODEL.NT Local Service Equipment MODEL .ASSISTANCE SERVICE)

Specialisation of LOCAL SERVICE for ASSISTANCE providing information like language, accessibility trained staff, etc.

ASSISTANCE SERVICE – Relations

Source	Target
ASSISTANCE SERVICE Role: Cardinality: Relation type: Generalization	LOCAL SERVICE Role: Cardinality:
ASSISTANCE SERVICE Role: characterised by Cardinality: 0..* Relation type: Association	TYPE OF STAFFING Role: description of Cardinality: 0..*
ASSISTANCE SERVICE Role: classified as Cardinality: 0..* Relation type: Association	TYPE OF ASSISTANCE SERVICE Role: classification for Cardinality: 0..1
ASSISTANCE SERVICE Role: characterised by Cardinality: 0..* Relation type: Association	TYPE OF EMERGENCY SERVICE Role: description of Cardinality: 0..*
ASSISTANCE SERVICE Role: characterised by Cardinality: 0..* Relation type: Association	TYPE OF ACCESSIBILITY TOOLS Role: description of Cardinality: 0..*

ASSISTANCE SERVICE – Attributes

Classification	Name	Type	cardinality	Description
::>	::>	LOCAL SERVICE	::>	ASSISTANCE SERVICE inherits from LOCAL SERVICE
«UID»	Id	<i>AssistanceService</i>	1:1	Identifier of ASSISTANCE SERVICE.
	Languages	<i>lang</i>	1..*	Which languages are spoken.
	AssistanceAvailability	<i>AssistanceAvailabilityEnum</i>	0..*	When assistance is available
	Staffing	<i>StaffingEnum</i>	0:1	Whether the service is staffed.
	AccessibilityTools	<i>AccessibilityToolEnum</i>	0..*	Whether accessibility tools such as wheelchairs are available.
	AccessibilityTrainedStaff	<i>boolean</i>	0:1	Whether staff are accessibility trained.
	EmergencyServices	<i>EmergencyServicesEnum</i>	0..*	Emergency services available that may be relevant for accessibility.
	SafetyFacilities	<i>SafetyFacilityEnum</i>	0..*	Safety facilities available

AUTHORITY

(Transmodel v6.Part 1 - Common Concepts (CC).CC Reusable Components MODEL.CC Transport Organisations MODEL.AUTHORITY)

The organisation under which the responsibility of organising the transport service in a certain area is placed.

AUTHORITY – Relations

Source	Target
GROUP OF OPERATORS <i>Role: serving PT for</i> <i>Cardinality: 0..*</i> <i>Relation type: Association</i>	AUTHORITY <i>Role: ordering PT service from</i> <i>Cardinality: *</i>
OPERATOR <i>Role: serving PT for</i> <i>Cardinality: *</i> <i>Relation type: Association</i>	AUTHORITY <i>Role: ordering PT service from</i> <i>Cardinality: *</i>
AUTHORITY <i>Role: managing</i> <i>Cardinality: 1</i> <i>Relation type: Association</i>	ADMINISTRATIVE ZONE <i>Role: managed by</i> <i>Cardinality: *</i>
AUTHORITY <i>Role:</i> <i>Cardinality:</i> <i>Relation type: Generalization</i>	ORGANISATION <i>Role:</i> <i>Cardinality:</i>
AUTHORITY <i>Role: managing</i> <i>Cardinality: 0..1</i> <i>Relation type: Association</i>	CLASS IN REPOSITORY <i>Role: managed by</i> <i>Cardinality: 0..*</i>
AUTHORITY <i>Role: managing</i> <i>Cardinality: 0..1</i> <i>Relation type: Association</i>	PASSENGER INFORMATION EQUIPMENT <i>Role: managed by</i> <i>Cardinality: *</i>
AUTHORITY <i>Role: managing</i> <i>Cardinality: 0..1</i> <i>Relation type: Association</i>	JOURNEY PATTERN <i>Role: managed by</i> <i>Cardinality: *</i>
SPECIAL SERVICE <i>Role: operated for</i> <i>Cardinality: *</i> <i>Relation type: Association</i>	AUTHORITY <i>Role: managing</i> <i>Cardinality: 0..1</i>

AUTHORITY – Attributes

Classifi- cation	Name	Type	cardinality	Description
::>	::>	ORGANISATION	::>	AUTHORITY inherits from ORGANISATION
«UID»	Id	AuthorityIdType	1:1	Identifier of AUTHORITY .

AVAILABILITY CONDITION

(Transmodel v6.Part 1 - Common Concepts (CC).CC Reusable Components MODEL.CC Availability Condition MODEL.AVAILABILITY CONDITION)

A VALIDITY CONDITION expressed in terms of temporal parameters and referring to DAY TYPEs.

AVAILABILITY CONDITION – Relations

Source	Target
FACILITY SET <i>Role:</i> available at <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	AVAILABILITY CONDITION <i>Role:</i> determining the availability of <i>Cardinality:</i> 0..1
OPERATING DAY <i>Role:</i> determining <i>Cardinality:</i> 0..* <i>Relation type:</i> Aggregation	AVAILABILITY CONDITION <i>Role:</i> valid for <i>Cardinality:</i> 0..*
TIME BAND <i>Role:</i> determining <i>Cardinality:</i> 0..* <i>Relation type:</i> Aggregation	AVAILABILITY CONDITION <i>Role:</i> valid for <i>Cardinality:</i> 0..*
AVAILABILITY CONDITION <i>Role:</i> valid for <i>Cardinality:</i> 1..* <i>Relation type:</i> Association	DAY TYPE <i>Role:</i> characterized by <i>Cardinality:</i> 0..*
ACCESSIBILITY ASSESSMENT <i>Role:</i> determined by <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	AVAILABILITY CONDITION <i>Role:</i> determining <i>Cardinality:</i> 0..*
AVAILABILITY CONDITION <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Generalization	VALIDITY CONDITION <i>Role:</i> <i>Cardinality:</i>
AVAILABILITY CONDITION <i>Role:</i> applicable for <i>Cardinality:</i> 0..* <i>Relation type:</i> Aggregation	STOP ASSIGNMENT <i>Role:</i> for <i>Cardinality:</i> 0..1

AVAILABILITY CONDITION – Attributes

Classification	Name	Type	cardinality	Description
::>	::>	VALIDITY CONDITION	::>	AVAILABILITY CONDITION inherits from VALIDITY CONDITION
«UID»	Id	AvailabilityConditionIdType	1:1	Identifier of AVAILABILITY CONDITION.
	IsAvailable	boolean	0:1	Whether the Condition makes the resource available or not available.
	FromDate	dateTime	0:1	Inclusive start date for validity of AVAILABILITY CONDITION.
	ToDate	dateTime	0:1	Inclusive End date for validity of AVAILABILITY CONDITION.

BEACON POINT

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).ND Network Description MODEL.NT Activation MODEL.BEACON POINT)

A POINT where a beacon or similar device to support the automatic detection of vehicles passing by is located.

BEACON POINT – Relations

Source	Target
BEACON POINT <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Generalization	ACTIVATION POINT <i>Role:</i> <i>Cardinality:</i>
BEACON POINT <i>Role:</i> <i>Cardinality:</i> 0..* <i>Relation type:</i> Aggregation	INFRASTRUCTURE FRAME <i>Role:</i> <i>Cardinality:</i>

BEACON POINT – Attributes

Classification	Name	Type	cardinality	Description
::>	::>	ACTIVATION POINT	::>	BEACON POINT inherits from ACTIVATION POINT
«UID»	<i>Id</i>	BeaconPointIdType	1:1	Identifier of BEACON POINT.

BLOCK

(Transmodel v6.Part 3 - Timing Information & Vehicle Scheduling (TI).TI Vehicle Service MODEL.BLOCK)

The work of a vehicle from the time it leaves a PARKING POINT after parking until its next return to park at a PARKING POINT. Any subsequent departure from a PARKING POINT after parking marks the start of a new BLOCK. The period of a BLOCK has to be covered by DUTies.

BLOCK – Relations

Source	Target
DAY TYPE <i>Role:</i> for <i>Cardinality:</i> 1..* <i>Relation type:</i> Association	BLOCK <i>Role:</i> worked on <i>Cardinality:</i> *
ORGANISATIONAL UNIT <i>Role:</i> responsible for <i>Cardinality:</i> 0..1 <i>Relation type:</i> Association	BLOCK <i>Role:</i> managed by <i>Cardinality:</i> *
BLOCK PART <i>Role:</i> part of <i>Cardinality:</i> * <i>Relation type:</i> Aggregation	BLOCK <i>Role:</i> subdivided in <i>Cardinality:</i> 1
NORMAL DATED BLOCK <i>Role:</i> using <i>Cardinality:</i> * <i>Relation type:</i> Association	BLOCK <i>Role:</i> used by <i>Cardinality:</i> 1
BLOCK <i>Role:</i> used as <i>Cardinality:</i> 1 <i>Relation type:</i> Association	BLOCK PART <i>Role:</i> use of <i>Cardinality:</i> *
BLOCK <i>Role:</i> started at <i>Cardinality:</i> * <i>Relation type:</i> Association	PARKING POINT <i>Role:</i> start of <i>Cardinality:</i> 1
BLOCK <i>Role:</i> ended at <i>Cardinality:</i> *	PARKING POINT <i>Role:</i> end of <i>Cardinality:</i> 1

<i>Relation type:</i> Association	
BLOCK <i>Role:</i> using <i>Cardinality:</i> * <i>Relation type:</i> Association	VEHICLE TYPE <i>Role:</i> assigned to <i>Cardinality:</i> 1
BLOCK <i>Role:</i> including <i>Cardinality:</i> 1 <i>Relation type:</i> Association	RELIEF OPPORTUNITY <i>Role:</i> in <i>Cardinality:</i> *
BLOCK <i>Role:</i> subdivided in <i>Cardinality:</i> 1 <i>Relation type:</i> Association	COURSE OF JOURNEYS <i>Role:</i> a part of <i>Cardinality:</i> *
BLOCK <i>Role:</i> part of <i>Cardinality:</i> * <i>Relation type:</i> Association	VEHICLE SERVICE PART <i>Role:</i> including <i>Cardinality:</i> 0..1
BLOCK <i>Role:</i> <i>Cardinality:</i> * <i>Relation type:</i> Aggregation	VEHICLE SCHEDULE FRAME <i>Role:</i> <i>Cardinality:</i>
BLOCK <i>Role:</i> including <i>Cardinality:</i> 0..1 <i>Relation type:</i> Association	SPECIAL SERVICE <i>Role:</i> in <i>Cardinality:</i> *
BLOCK <i>Role:</i> including <i>Cardinality:</i> 0..1 <i>Relation type:</i> Association	VEHICLE JOURNEY <i>Role:</i> in <i>Cardinality:</i> *

BLOCK – Attributes

Classification	Name	Type	cardinality	Description
«UID»	<i>Id</i>	<i>BlockIdType</i>	1:1	Identifier of BLOCK.
	<i>Name</i>	<i>MultilingualString</i>	0:1	Name of BLOCK.
	<i>Description</i>	<i>MultilingualString</i>	0:1	Description of BLOCK.
	<i>PreparationDuration</i>	<i>duration</i>	0:1	How long needed to prepare to run BLOCK.
	<i>StartTime</i>	<i>time</i>	0:1	Start time of BLOCK in principle this can be derived from the Start time of the first journey and the preparation duration. .
	<i>EndTime</i>	<i>time</i>	0:1	End time of BLOCK in principle this can be derived from the Start time of the last journey and the finishing duration. .
	<i>StartTimeDayOffset</i>	<i>DayOffsetType</i>	0:1	Day offset of start time from OPERATING DAY.
	<i>EndTimeDayOffset</i>	<i>Integer</i>	0:1	Day offset of end time from start time
	<i>FinishingDuration</i>	<i>duration</i>	0:1	How long needed to prepare to complete BLOCK.

BLOCK PART

(Transmodel v6.Part 3 - Timing Information & Vehicle Scheduling (TI).TI Vehicle Service MODEL.BLOCK PART)

Part of a BLOCK corresponding to the different JOURNEY PARTs of the VEHICLE JOURNEYS in a BLOCK.

BLOCK PART – Relations

Source	Target
VEHICLE TYPE <i>Role:</i> assigned to <i>Cardinality:</i> * <i>Relation type:</i> Association	BLOCK PART <i>Role:</i> using <i>Cardinality:</i> *
BLOCK PART <i>Role:</i> included in <i>Cardinality:</i> * <i>Relation type:</i> Association	COMPOUND BLOCK <i>Role:</i> including <i>Cardinality:</i> 0..1
BLOCK PART <i>Role:</i> part of <i>Cardinality:</i> * <i>Relation type:</i> Aggregation	BLOCK <i>Role:</i> subdivided in <i>Cardinality:</i> 1
BLOCK <i>Role:</i> used as <i>Cardinality:</i> 1 <i>Relation type:</i> Association	BLOCK PART <i>Role:</i> use of <i>Cardinality:</i> *
TYPE OF COUPLING <i>Role:</i> classification for <i>Cardinality:</i> 0..1 <i>Relation type:</i> Association	BLOCK PART <i>Role:</i> classified by <i>Cardinality:</i> 0..*
JOURNEY PART <i>Role:</i> in <i>Cardinality:</i> * <i>Relation type:</i> Association	BLOCK PART <i>Role:</i> including <i>Cardinality:</i> 0..1

BLOCK PART – Attributes

Classifi- cation	Name	Type	cardinality	Description
	Order	<i>integer</i>	0:1	Order of BLOCK PART within BLOCK
«UID»	Id	<i>BlockPartIdType</i>	1:1	Identifier of BLOCK PART.
	Description	<i>MultilingualString</i>	0:1	Description of BLOCK PART.
	Name	<i>MultilingualString</i>	0:1	Description of COURSE OF JOURNEYS.

BOARDING POSITION

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).FO Fixed Object MODEL .NT Stop Place MODEL.BOARDING POSITION)

A location within a QUAY from which passengers may directly board, or onto which passengers may directly alight from a VEHICLE.

BOARDING POSITION – Relations

Source	Target
BOARDING POSITION <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Generalization	STOP PLACE SPACE <i>Role:</i> <i>Cardinality:</i>
STOP ASSIGNMENT <i>Role:</i> for <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	BOARDING POSITION <i>Role:</i> to <i>Cardinality:</i> 0..1
VEHICLE POSITION ALIGNMENT <i>Role:</i> serving <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	BOARDING POSITION <i>Role:</i> linked to <i>Cardinality:</i> 1
TRAIN STOP ASSIGNMENT <i>Role:</i> for <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	BOARDING POSITION <i>Role:</i> to <i>Cardinality:</i> 0..1
BOARDING POSITION <i>Role:</i> a part of <i>Cardinality:</i> 0..* <i>Relation type:</i> Aggregation	QUAY <i>Role:</i> composed by <i>Cardinality:</i> 1
BOARDING POSITION <i>Role:</i> classified as <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	TYPE OF BOARDING POSITION <i>Role:</i> a classification for <i>Cardinality:</i> 0..1

BOARDING POSITION – Attributes

Classification	Name	Type	cardinality	Description
::>	::>	STOP PLACE SPACE	::>	BOARDING POSITION inherits from STOP PLACE SPACE
«UID»	Id	BoardingPositionIdType	1:1	Identifier of BOARDING POSITION.

BOOKING ARRANGEMENTS

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).ND Network Description MODEL.NT Flexible Network MODEL.BOOKING ARRANGEMENTS)

Booking arrangements for FLEXIBLE LINE.

BOOKING ARRANGEMENTS – Relations

Source	Target
BOOKING ARRANGEMENTS <i>Role:</i> for <i>Cardinality:</i> 0..1 <i>Relation type:</i> Association	FLEXIBLE LINE <i>Role:</i> admitting <i>Cardinality:</i> *

BOOKING ARRANGEMENTS – Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id		1:1	Identifier of BOOKING ARRANGEMENTS.
	BookingMethods	<i>BookingMethodEnum</i>	0:*	Booking method for FLEXIBLE LINE.
	BookingAccess	<i>BookingAccessEnum</i>	0:1	Who can make a Booking.
	LatestBookingTime	<i>MultilingualString</i>	0:1	Latest time in day that booking can be made.
	MinimumBookingPeriod	<i>duration</i>	0:1	Minimum interval in advance of departure day or time that service may be ordered.

CATERING SERVICE

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).FO Fixed Object MODEL .NT Equipment Description MODEL.NT Local Commercial Service MODEL.CATERING SERVICE)

Specialisation of LOCAL SERVICE dedicated to catering service.

CATERING SERVICE – Relations

Source	Target
CATERING SERVICE <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Generalization	LOCAL SERVICE <i>Role:</i> <i>Cardinality:</i>
TYPE OF CATERING SERVICE <i>Role:</i> classification for <i>Cardinality:</i> 1 <i>Relation type:</i> Association	CATERING SERVICE <i>Role:</i> classified as <i>Cardinality:</i> 0..*

CATERING SERVICE – Attributes

Classification	Name	Type	cardinality	Description
::>	::>	<i>LOCAL SERVICE</i>	::>	CATERING SERVICE inherits from LOCAL SERVICE
«UID»	Id		1:1	Identifier of REFRESHMENTS SERVICE.

CHECK CONSTRAINT

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).FO Fixed Object MODEL .NT Check Constraint MODEL.CHECK CONSTRAINT)

Characteristics of a process that takes place at a SITE COMPONENT, such as check-in, security screening, ticket control or immigration, that may potentially incur a time penalty that should be allowed for when journey planning.

CHECK CONSTRAINT – Relations

Source	Target
CHECK CONSTRAINT <i>Role:</i> limited to <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	CLASS OF USE <i>Role:</i> for <i>Cardinality:</i> 0..1
VALIDITY CONDITION <i>Role:</i> determining <i>Cardinality:</i> 0..* <i>Relation type:</i> Aggregation	CHECK CONSTRAINT <i>Role:</i> determined by <i>Cardinality:</i> 0..1
CHECK CONSTRAINT <i>Role:</i> limited to <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	FACILITY <i>Role:</i> for <i>Cardinality:</i> 0..1
CHECK CONSTRAINT <i>Role:</i> determined by <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	TYPE OF ACCESS FEATURE <i>Role:</i> determining <i>Cardinality:</i> 0..1
CHECK CONSTRAINT <i>Role:</i> determined by <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	TYPE OF SERVICE NATURE <i>Role:</i> determining <i>Cardinality:</i> 0..1
CHECK CONSTRAINT <i>Role:</i> classified as <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	TYPE OF CHECK CONSTRAINT <i>Role:</i> classification for <i>Cardinality:</i> 1
CHECK CONSTRAINT DELAY <i>Role:</i> determined by <i>Cardinality:</i> 0..* <i>Relation type:</i> Aggregation	CHECK CONSTRAINT <i>Role:</i> determining <i>Cardinality:</i> 1
CHECK CONSTRAINT <i>Role:</i> determined by <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	TYPE OF CONGESTION <i>Role:</i> determining <i>Cardinality:</i> 0..1
CHECK CONSTRAINT THROUGHPUT <i>Role:</i> determined by <i>Cardinality:</i> 0..* <i>Relation type:</i> Aggregation	CHECK CONSTRAINT <i>Role:</i> determining <i>Cardinality:</i> 1
CHECK CONSTRAINT <i>Role:</i> affecting <i>Cardinality:</i> 0..* <i>Relation type:</i> Aggregation	PATH LINK <i>Role:</i> affected by <i>Cardinality:</i> 1
CHECK CONSTRAINT <i>Role:</i> characterising <i>Cardinality:</i> 0..* <i>Relation type:</i> Aggregation	SITE COMPONENT <i>Role:</i> characterised by <i>Cardinality:</i> 1
CHECK CONSTRAINT <i>Role:</i> <i>Cardinality:</i> * <i>Relation type:</i> Aggregation	SITE FRAME <i>Role:</i> <i>Cardinality:</i>
SERVICE JOURNEY <i>Role:</i> affected by <i>Cardinality:</i> 0..1 <i>Relation type:</i> Association	CHECK CONSTRAINT <i>Role:</i> a process for <i>Cardinality:</i> 0..*

CHECK CONSTRAINT – Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id	<i>CheckConstraintIdType</i>	1:1	Identifier of CHECK CONSTRAINT.
	Order	<i>integer</i>	0:1	Order of CHECK CONSTRAINT.
	Name	<i>MultilingualString</i>	0:1	Name of CHECK CONSTRAINT.
	CheckDirection	<i>CheckDirectionEnum</i>	0:1	Direction in which CHECK CONSTRAINT applies: forwards, back or both. For CHECK CONSTRAINT associated with links, corresponds to direction of link. For CHECK CONSTRAINT associated with ENTRANCES corresponds to direction from outside SITE to inside SITE.
	AccessFeatureType	<i>AccessFeatureEnum</i>	0:1	Access feature associated with CHECK CONSTRAINT.

CHECK CONSTRAINT DELAY

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).FO Fixed Object MODEL .NT Check Constraint MODEL.CHECK CONSTRAINT DELAY)

Time penalty associated with a CHECK CONSTRAINT.

CHECK CONSTRAINT DELAY – Relations

Source	Target
CHECK CONSTRAINT DELAY Role: determined by Cardinality: 0..* Relation type: Aggregation	CHECK CONSTRAINT Role: determining Cardinality: 1
VALIDITY CONDITION Role: determining Cardinality: 0..* Relation type: Association	CHECK CONSTRAINT DELAY Role: applicable for Cardinality: 0..1
CHECK CONSTRAINT DELAY Role: Cardinality: * Relation type: Aggregation	SITE FRAME Role: Cardinality:

CHECK CONSTRAINT DELAY – Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id	<i>CheckConstraintDelayIdType</i>	1:1	Identifier of CHECK CONSTRAINT DELAY.
	AverageDuration	<i>duration</i>	0:1	Average duration of delay of CHECK CONSTRAINT DELAY.
	MinimumDuration	<i>duration</i>	0:1	Minimum expected duration of delay of CHECK CONSTRAINT DELAY.
	MaximumDuration	<i>duration</i>	0:1	Maximum expected duration of delay of CHECK CONSTRAINT DELAY.

CHECK CONSTRAINT THROUGHPUT

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).FO Fixed Object MODEL .NT Check Constraint MODEL.CHECK CONSTRAINT THROUGHPUT)

Throughput of a CHECK CONSTRAINT: the number of passengers who can pass through it in a specified interval.

CHECK CONSTRAINT THROUGHPUT – Relations

Source	Target
CHECK CONSTRAINT THROUGHPUT <i>Role: determined by</i> <i>Cardinality: 0..*</i> <i>Relation type: Aggregation</i>	CHECK CONSTRAINT <i>Role: determining</i> <i>Cardinality: 1</i>
VALIDITY CONDITION <i>Role: determining</i> <i>Cardinality: 0..*</i> <i>Relation type: Aggregation</i>	CHECK CONSTRAINT THROUGHPUT <i>Role: applicable for</i> <i>Cardinality: 0..1</i>

CHECK CONSTRAINT THROUGHPUT – Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id	<i>ThroughputIdType</i>	1:1	Identifier of CHECK CONSTRAINT THROUGHPUT.
	Period	<i>duration</i>	0:1	Identifier of PERIOD for CHECK CONSTRAINT THROUGHPUT.
	MaximumPassengers	<i>NumberOfPassengers</i>	0:1	Maximum number of passengers for CHECK CONSTRAINT THROUGHPUT.
	AveragePassengers	<i>NumberOfPassengers</i>	0:1	Average number of passengers for CHECK CONSTRAINT THROUGHPUT.
	WheelchairPassengers	<i>NumberOfPassengers</i>	0:1	Maximum number of wheelchair passengers for CHECK CONSTRAINT THROUGHPUT.

CLASS IN FRAME

(Transmodel v6.Part 1 - Common Concepts (CC).CC Versions & Validity MODEL.CC Generic Version Frame MODEL.CLASS IN FRAME)

The different CLASSEs IN REPOSITORY which can be relevant for corresponding VERSION FRAMEs.

CLASS IN FRAME – Relations

Source	Target
CLASS IN FRAME <i>Role: restricting</i> <i>Cardinality: 0..1</i> <i>Relation type: Association</i>	ENTITY IN VERSION <i>Role: restricted by</i> <i>Cardinality: *</i>
CLASS IN FRAME <i>Role: parent of</i> <i>Cardinality: 0..1</i> <i>Relation type: Association</i>	CLASS IN FRAME <i>Role: derived from</i> <i>Cardinality: *</i>
TYPE OF FRAME <i>Role: a classification for</i> <i>Cardinality: 1</i> <i>Relation type: Association</i>	CLASS IN FRAME <i>Role: classified as</i> <i>Cardinality: *</i>
CLASS IN REPOSITORY <i>Role: comprising</i> <i>Cardinality: 1</i> <i>Relation type: Association</i>	CLASS IN FRAME <i>Role: belonging to</i> <i>Cardinality: *</i>

CLASS IN FRAME – Attributes

Classifi- cation	Name	Type	cardinality	Description
«UID»	Id		1:1	Identifier of the class (name) of a CLASS IN REPOSITORY belonging to a VERSION FRAME.

CLASS IN REPOSITORY

(Transmodel v6.Part 1 - Common Concepts (CC).CC Versions & Validity MODEL.CC Generic Entity MODEL.CLASS IN REPOSITORY)

Any ENTITY name belonging to the repository. E.g. DAY TYPE, PROPERTY OF DAY, TIME BAND, VEHICLE TYPE, etc, are relevant instances of CLASS IN REPOSITORY in the context of version management.

CLASS IN REPOSITORY – Relations

Source	Target
ENTITY Role: instance of Cardinality: * Relation type: Association	CLASS IN REPOSITORY Role: filled by Cardinality: 1
ADMINISTRATIVE ZONE Role: Cardinality: 1 Relation type: Association	CLASS IN REPOSITORY Role: Cardinality: 0..*
ORGANISATIONAL UNIT Role: operationally responsible for Cardinality: 0..1 Relation type: Association	CLASS IN REPOSITORY Role: operationally managed by Cardinality: 0..*
CLASS IN REPOSITORY Role: comprising Cardinality: 1 Relation type: Association	CLASS IN FRAME Role: belonging to Cardinality: *
AUTHORITY Role: managing Cardinality: 0..1 Relation type: Association	CLASS IN REPOSITORY Role: managed by Cardinality: 0..*
CLASS IN REPOSITORY Role: defining Cardinality: * Relation type: Association	TYPE OF VALIDITY Role: defined by Cardinality: *

CLASS IN REPOSITORY – Attributes

Classifi- cation	Name	Type	cardinali- ty	Description
«UID»	Id	NameOfClass	1:1	Unique Identifier of Class of ENTITY. There will only be a Single instance, which must be the class name, e.g. Day Type, Property of Day, etc

CLASS OF USE

(Transmodel v6.Part 1 - Common Concepts (CC).CC Reusable Components MODEL.CC Service Restriction MODEL.CLASS OF USE)

A classification of fare and other service classes by category of user entitled to use them.

CLASS OF USE – Relations

Source	Target
CLASS OF USE <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Generalization	SERVICE RESTRICTION <i>Role:</i> <i>Cardinality:</i>
CHECK CONSTRAINT <i>Role:</i> limited to <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	CLASS OF USE <i>Role:</i> for <i>Cardinality:</i> 0..1
WAITING ROOM EQUIPMENT <i>Role:</i> assigned to <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	CLASS OF USE <i>Role:</i> characterising <i>Cardinality:</i> 0..1

CLASS OF USE – Attributes

Classification	Name	Type	cardinality	Description
::>	::>	SERVICE RESTRICTION	::>	CLASS OF USE inherits from SERVICE RESTRICTION
«UID»	Id		1:1	Identifier of CLASS OF USE.

COMMON SECTION

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).TP Tactical Planning Components MODEL.NT Common Section MODEL.COMMON SECTION)

A part of a public transport network where the ROUTEs of several JOURNEY PATTERNS are going in parallel and where the synchronisation of SERVICE JOURNEYS may be planned and controlled with respect to commonly used LINKs and SCHEDULED STOP POINTs. COMMON SECTIONs are defined arbitrarily and need not cover the total lengths of topologically bundled sections.

COMMON SECTION – Relations

Source	Target
POINT <i>Role:</i> included in <i>Cardinality:</i> 2..* <i>Relation type:</i> Association	COMMON SECTION <i>Role:</i> comprising <i>Cardinality:</i> *
COMMON SECTION <i>Role:</i> marked by <i>Cardinality:</i> 0..1 <i>Relation type:</i> Association	NOTICE ASSIGNMENT <i>Role:</i> assigned to <i>Cardinality:</i> *
LINE SECTION <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Generalization	COMMON SECTION <i>Role:</i> <i>Cardinality:</i>
COMMON SECTION <i>Role:</i> defined for <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	JOURNEY PATTERN <i>Role:</i> used to define <i>Cardinality:</i> 1..*
COMMON SECTION <i>Role:</i> <i>Cardinality:</i> * <i>Relation type:</i> Aggregation	SERVICE FRAME <i>Role:</i> <i>Cardinality:</i>

COMMON SECTION – Attributes

Classifi- cation	Name	Type	cardinality	Description
«UID»	Id	<i>CommonSectionIdType</i>	1:1	Identifier of COMMON SECTION
	Description		0:1	Description of COMMON SECTION.

COMMUNICATION SERVICE

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).FO Fixed Object MODEL .NT Equipment Description MODEL.NT Local Commercial Service MODEL.COMMUNICATION SERVICE)

Specialisation of LOCAL SERVICE dedicated to communication services.

COMMUNICATION SERVICE – Relations

Source	Target
TYPE OF COMMUNICATION SERVICE Role: classification for Cardinality: 1 Relation type: Association	COMMUNICATION SERVICE Role: classified as Cardinality: 0..*
COMMUNICATION SERVICE Role: Cardinality: Relation type: Generalization	LOCAL SERVICE Role: Cardinality:

COMMUNICATION SERVICE – Attributes

Classifi- cation	Name	Type	cardinality	Description
::>	::>	<i>LOCAL SERVICE</i>	::>	COMMUNICATION SERVICE inherits from LOCAL SERVICE
«UID»	Id		1:1	Identifier of COMMUNICATION SERVICE.

COMPLAINTS SERVICE

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).FO Fixed Object MODEL .NT Equipment Description MODEL.NT Local Service Equipment MODEL .COMPLAINTS SERVICE)

Specialisation of CUSTOMER SERVICE for COMPLAINTS

COMPLAINTS SERVICE – Relations

Source	Target
COMPLAINTS SERVICE Role: Cardinality: Relation type: Generalization	CUSTOMER SERVICE Role: Cardinality:

COMPLAINTS SERVICE – Attributes

Classifi- cation	Name	Type	cardinality	Description
::>	::>	<i>CUSTOMER SERVICE</i>	::>	COMPLAINTS SERVICE inherits from CUSTOMER SERVICE
«UID»	Id	<i>ComplaintsService</i>	1:1	Identifier of COMPLAINTS SERVICE.

COMPLEX FEATURE

(Transmodel v6.Part 1 - Common Concepts (CC).CC Generic Framework MODEL.CC Generic Zone and Feature MODEL.COMPLEX FEATURE)

An aggregate of SIMPLE FEATURES and/or other COMPLEX FEATURES.

COMPLEX FEATURE – Relations

Source	Target
COMPLEX FEATURE Role: containing Cardinality: * Relation type: Association	COMPLEX FEATURE Role: contained in Cardinality: *
COMPLEX FEATURE Role: used as target in Cardinality: 1 Relation type: Association	ZONE PROJECTION Role: to Cardinality: *
COMPLEX FEATURE Role: used as target in Cardinality: 1 Relation type: Association	LINK PROJECTION Role: to Cardinality: *
COMPLEX FEATURE Role: made up of Cardinality: * Relation type: Association	SIMPLE FEATURE Role: contained in Cardinality: *
COMPLEX FEATURE Role: used as target in Cardinality: 1 Relation type: Association	COMPLEX FEATURE PROJECTION Role: to Cardinality: *
COMPLEX FEATURE Role: used as source in Cardinality: 1 Relation type: Association	COMPLEX FEATURE PROJECTION Role: calling as source Cardinality: *
COMPLEX FEATURE Role: used as target in Cardinality: 1 Relation type: Association	POINT PROJECTION Role: to Cardinality: *
COMPLEX FEATURE Role: represented by Cardinality: * Relation type: Association	POINT Role: representation for Cardinality: 0..1
COMPLEX FEATURE Role: Cardinality: 0..* Relation type: Aggregation	INFRASTRUCTURE FRAME Role: Cardinality:
COMPLEX FEATURE Role: Cardinality: Relation type: Aggregation	LAYER Role: Cardinality:

COMPLEX FEATURE – Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id	ComplexFeatureIdType	1:1	Identifier of COMPLEX FEATURE.

COMPLEX FEATURE PROJECTION

(Transmodel v6.Part 1 - Common Concepts (CC).CC Generic Framework MODEL.CC Generic Projection MODEL.COMPLEX FEATURE PROJECTION)

An oriented correspondence: from one COMPLEX FEATURE in the source layer, onto an entity in a target layer: e.g. POINT, COMPLEX FEATURE, within a defined TYPE OF PROJECTION.

COMPLEX FEATURE PROJECTION - Relations

Source	Target
COMPLEX FEATURE PROJECTION Role: concerning Cardinality: * Relation type: Association	TYPE OF PROJECTION Role: comprising Cardinality: 1
COMPLEX FEATURE Role: used as target in Cardinality: 1 Relation type: Association	COMPLEX FEATURE PROJECTION Role: to Cardinality: *
COMPLEX FEATURE Role: used as source in Cardinality: 1 Relation type: Association	COMPLEX FEATURE PROJECTION Role: calling as source Cardinality: *
POINT Role: used as target in Cardinality: 1 Relation type: Association	COMPLEX FEATURE PROJECTION Role: to Cardinality: *

COMPLEX FEATURE PROJECTION - Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id	ComplexFeatureProjection IdType	1:1	Identifier of COMPLEX FEATURE PROJECTION.

COMPOSITE FRAME

(Transmodel v6.Part 1 - Common Concepts (CC).CC Explicit Frames MODEL .CC Composite Frame MODEL.COMPOSITE FRAME)

A set of VERSION FRAMEs to which the same VALIDITY CONDITIONs have been assigned.

COMPOSITE FRAME – Relations

Source	Target
COMPOSITE FRAME <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Generalization	VERSION FRAME <i>Role:</i> <i>Cardinality:</i>
SERVICE CALENDAR FRAME <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Aggregation	COMPOSITE FRAME <i>Role:</i> <i>Cardinality:</i>
FARE FRAME <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Aggregation	COMPOSITE FRAME <i>Role:</i> <i>Cardinality:</i>
GENERAL FRAME <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Aggregation	COMPOSITE FRAME <i>Role:</i> <i>Cardinality:</i>
RESOURCE FRAME <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Aggregation	COMPOSITE FRAME <i>Role:</i> <i>Cardinality:</i>
INFRASTRUCTURE FRAME <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Aggregation	COMPOSITE FRAME <i>Role:</i> <i>Cardinality:</i>
SITE FRAME <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Aggregation	COMPOSITE FRAME <i>Role:</i> <i>Cardinality:</i>
SERVICE FRAME <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Aggregation	COMPOSITE FRAME <i>Role:</i> <i>Cardinality:</i>
TIMETABLE FRAME <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Aggregation	COMPOSITE FRAME <i>Role:</i> <i>Cardinality:</i>
VEHICLE SCHEDULE FRAME <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Aggregation	COMPOSITE FRAME <i>Role:</i> <i>Cardinality:</i>
DRIVER SCHEDULE FRAME <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Aggregation	COMPOSITE FRAME <i>Role:</i> <i>Cardinality:</i>
COMPOSITE FRAME <i>Role:</i> containing <i>Cardinality:</i> 0..1 <i>Relation type:</i> Association	COMPOSITE FRAME <i>Role:</i> part of <i>Cardinality:</i> 0..*

COMPOSITE FRAME – Attributes

Classifi- cation	Name	Type	cardinality	Description
::>	::>	VERSION FRAME	::>	COMPOSITE FRAME inherits from VERSION FRAME
«UID»	Id		1:1	Identifier of a COMPOSITE FRAME.

COMPOUND BLOCK

(Transmodel v6.Part 3 - Timing Information & Vehicle Scheduling (TI).TI Vehicle Service MODEL.COMPOUND BLOCK)

The work of a vehicle during the time it is coupled to another vehicle.

COMPOUND BLOCK – Relations

Source	Target
VEHICLE TYPE Role: assigned to Cardinality: * Relation type: Association	COMPOUND BLOCK Role: using Cardinality: *
COMPOUND BLOCK Role: from Cardinality: * Relation type: Association	TIMING POINT IN JOURNEY PATTERN Role: start of Cardinality: 1
COMPOUND BLOCK Role: Cardinality: * Relation type: Aggregation	VEHICLE SCHEDULE FRAME Role: Cardinality:
COMPOUND BLOCK Role: to Cardinality: * Relation type: Association	TIMING POINT IN JOURNEY PATTERN Role: end of Cardinality: 1
BLOCK PART Role: included in Cardinality: * Relation type: Association	COMPOUND BLOCK Role: including Cardinality: 0..1

COMPOUND BLOCK – Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id	CompoundBlockIdType	1:1	Identifier of COMPOUND BLOCK.
	Name	MultilingualString	0:1	Name of COMPOUND BLOCK.

COMPOUND TRAIN

(Transmodel v6.Part 1 - Common Concepts (CC).CC Reusable Components MODEL.CC Train MODEL.COMPOUND TRAIN)

A VEHICLE TYPE composed of a sequence of more than one vehicles of the type TRAIN.

COMPOUND TRAIN – Relations

Source	Target
TRAIN IN COMPOUND TRAIN Role: used for Cardinality: * Relation type: Association	COMPOUND TRAIN Role: composed of Cardinality: 1
COMPOUND TRAIN Role: Cardinality: Relation type: Generalization	VEHICLE TYPE Role: Cardinality:

COMPOUND TRAIN – Attributes

Classification	Name	Type	cardinality	Description
::>	::>	VEHICLE TYPE	::>	COMPOUND TRAIN inherits from VEHICLE TYPE
«UID»	Id	CompoundTrainIdType	1:1	Identifier of COMPOUND TRAIN.

CONNECTION

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).TP Tactical Planning Components MODEL.NT Service Pattern MODEL.CONNECTION)

The physical (spatial) possibility for a passenger to change from one public transport vehicle to another to continue the trip, determined by two SCHEDULED STOP POINTs. Different times may be necessary to cover the link between these points, depending on the kind of passenger.

CONNECTION – Relations

Source	Target
CONNECTION END Role: start of Cardinality: 1 Relation type: Association	CONNECTION Role: from Cardinality: *
CONNECTION Role: to Cardinality: * Relation type: Association	CONNECTION END Role: end of Cardinality: 1
NAVIGATION PATH ASSIGNMENT Role: for Cardinality: 0..* Relation type: Association	CONNECTION Role: to Cardinality: 0..1
CONNECTION Role: Cardinality: Relation type: Generalization	TRANSFER Role: Cardinality:
CONNECTION Role: Cardinality: * Relation type: Aggregation	SERVICE FRAME Role: Cardinality:
INTERCHANGE Role: for Cardinality: 0..* Relation type: Association	CONNECTION Role: at Cardinality: 0..1

CONNECTION – Attributes

Classification	Name	Type	cardinality	Description
::>	::>	TRANSFER	::>	CONNECTION inherits from TRANSFER
«UID»	Id	ConnectionIdType	1:1	Identifier of a CONNECTION.
	TransferOnly	boolean	0:1	Whether connecting at this stop passengers may only transfer. If true, then they may not enter or exit at the station.

CONNECTION END

(Transmodel v6.Part 2 - Public Transport Network Topology (NT).TP Tactical Planning Components
MODEL.NT Service Pattern MODEL.CONNECTION END)

One end of a CONNECTION.

CONNECTION END – Relations

Source	Target
CONNECTION END Role: serviced by Cardinality: 0..* Relation type: Association	VEHICLE MODE Role: servicing Cardinality: 0..1
CONNECTION END Role: start of Cardinality: 1 Relation type: Association	CONNECTION Role: from Cardinality: *
CONNECTION Role: to Cardinality: * Relation type: Association	CONNECTION END Role: end of Cardinality: 1
CONNECTION END Role: a view of Cardinality: 0..* Relation type: Association	SCHEDULED STOP POINT Role: viewed as Cardinality: 1
SITE CONNECTION END Role: Cardinality: Relation type: Generalization	CONNECTION END Role: Cardinality:

CONNECTION END – Attributes

Classifi- cation	Name	Type	cardinality	Description
«UID»	Id		1:1	Identifier of CONNECTION END;

CONTACT DETAILS

(Transmodel v6.Part 1 - Common Concepts (CC).CC Responsibility MODEL .CC Generic Organisation
MODEL.CONTACT DETAILS)

Contact details for ORGANISATION for public use.

CONTACT DETAILS – Relations

Source	Target
CONTACT DETAILS Role: for Cardinality: 0..* Relation type: Association	ORGANISATION Role: characterised by Cardinality: 1
CONTACT DETAILS Role: for Cardinality: 0..1 Relation type: Association	FLEXIBLE LINE Role: admitting Cardinality: *

CONTACT DETAILS – Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id		1:1	Identifier of CONTACT DETAILS
	ContactPerson	<i>normalizedString</i>	0:1	Name of a Person.
	Email	<i>EmailAddressType</i>	0:1	Email address in ISO format.
	Fax	<i>PhoneNumberType</i>	0:1	Phone number of Fax.
	FurtherDetails	<i>xsd:string</i>	0:1	Further details of contact
	Phone	<i>PhoneNumberType</i>	0:1	Phone number.
	Url	<i>anyURI</i>	0:1	Contact URL

CONTROL CENTRE

(Transmodel v6.Part 1 - Common Concepts (CC).CC Reusable Components MODEL.CC Transport Organisations MODEL.CONTROL CENTRE)

An ORGANISATION PART for an operational team who are responsible for issuing commands to control the services.

CONTROL CENTRE – Relations

Source	Target
CONTROL CENTRE <i>Role:</i> <i>Cardinality:</i> <i>Relation type:</i> Generalization	ORGANISATION PART <i>Role:</i> <i>Cardinality:</i>
CONTROL CENTRE <i>Role:</i> controlling <i>Cardinality:</i> 0..1 <i>Relation type:</i> Association	INTERCHANGE RULE <i>Role:</i> controlled by <i>Cardinality:</i> 0..*

CONTROL CENTRE – Attributes

Classification	Name	Type	cardinality	Description
::>	::>	ORGANISATION PART	::>	CONTROL CENTRE inherits from ORGANISATION PART
«UID»	Id	<i>ControlCentreIdType</i>	1:1	Identifier of CONTROL CENTRE.

COUNTRY

(Transmodel v6.Part 1 - Common Concepts (CC).CC Reusable Components MODEL.CC Topographic Place MODEL.COUNTRY)

A jurisdictional geographic boundary. A COUNTRY normally has a two character IANA identifier.

COUNTRY – Relations

Source	Target
COUNTRY <i>Role:</i> hosting <i>Cardinality:</i> 1 <i>Relation type:</i> Association	ADDRESS <i>Role:</i> hosted by <i>Cardinality:</i> 0..*
POINT OF INTEREST <i>Role:</i> <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	COUNTRY <i>Role:</i> <i>Cardinality:</i> 1
SITE ELEMENT <i>Role:</i> located in <i>Cardinality:</i> * <i>Relation type:</i> Association	COUNTRY <i>Role:</i> location of <i>Cardinality:</i> 1
TOPOGRAPHIC PLACE <i>Role:</i> part of <i>Cardinality:</i> 0..* <i>Relation type:</i> Association	COUNTRY <i>Role:</i> primary for <i>Cardinality:</i> 1
COUNTRY <i>Role:</i> intersected by <i>Cardinality:</i> 1..* <i>Relation type:</i> Association	TOPOGRAPHIC PLACE <i>Role:</i> intersecting <i>Cardinality:</i> 0..*
COUNTRY <i>Role:</i> <i>Cardinality:</i> * <i>Relation type:</i> Aggregation	SITE FRAME <i>Role:</i> <i>Cardinality:</i>

COUNTRY – Attributes

Classification	Name	Type	cardinality	Description
«UID»	Id	CountryEnum	1:1	Identifier of COUNTRY.
	Name	MultilingualString	1:1	Name of COUNTRY.

COUPLED JOURNEY

(Transmodel v6.Part 3 - Timing Information & Vehicle Scheduling (TI).TI JourneyAndJourneyTimes MODEL .TI Coupled Journey MODEL.COUPLED JOURNEY)

A complete journey operated by a coupled train, composed of two or more VEHICLE JOURNEYS remaining coupled together all along a JOURNEY PATTERN. A COUPLED JOURNEY may be viewed as a single VEHICLE JOURNEY.

COUPLED JOURNEY – Relations

Source	Target
COUPLED JOURNEY <i>Role:</i> viewed as <i>Cardinality:</i> 1 <i>Relation type:</i> Association	VEHICLE JOURNEY <i>Role:</i> a view of <i>Cardinality:</i> 0..1
VEHICLE JOURNEY <i>Role:</i> part of <i>Cardinality:</i> 1..* <i>Relation type:</i> Association	COUPLED JOURNEY <i>Role:</i> composed of <i>Cardinality:</i> 0..1