ASAM OpenXOntology

Extendable ontology for the traffic domain

Part 2 of 2

Model Reference

Version 1.0.0 Draft

Date: TBD

Base Standard

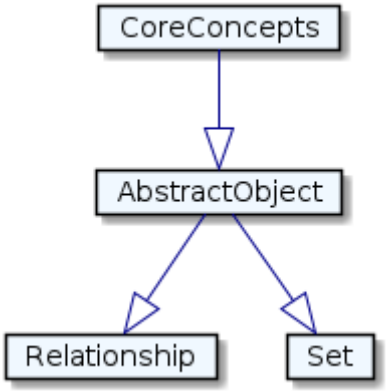
Ontology Version Information

ASAM OpenXOntology Version 1.0.0

Core

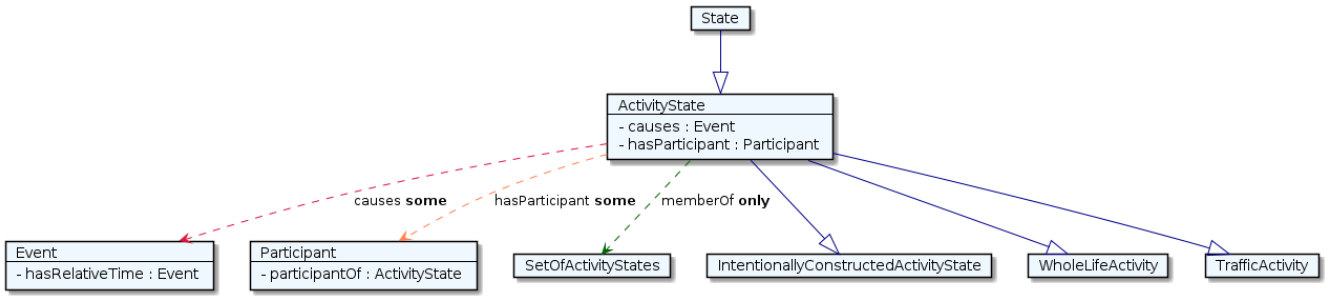
Classes

AbstractObject



Element	Description
Type	Class
Name	AbstractObject
IRI	http://ontology.asam.net/ontologies/Core#AbstractObject
Subclass of	CoreConcepts
Disjoint with	SpatioTemporalExtent
Comments	DEF: A thing that does not exist in space or time. Abstract objects are used to express characteristics of spatio-temporal extents, such as properties and roles.
EXAMPLES: not applicable.	USAGE: This class will generally not be used directly in the OpenX domain.

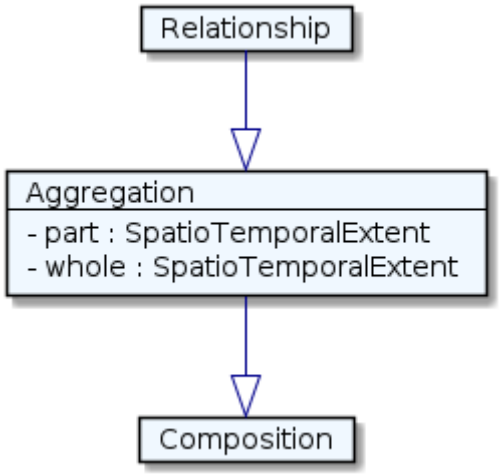
ActivityState



Element	Description
Type	Class
Name	ActivityState

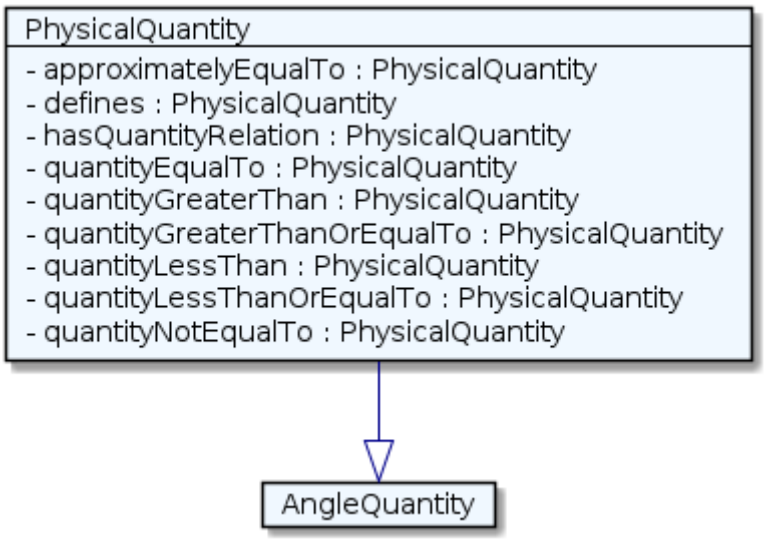
Element	Description
IRI	http://ontology.asam.net/ontologies/Core#ActivityState
Subclass of	State
Restriction	causes **some** Event
Restriction	hasParticipant **some** Participant
Restriction	memberOf **only** SetOfActivityStates
Comments	DEF: A State that represents the whole life of an activity or a temporal part of an activity. Activities consist of their participants, which are members of PhysicalObjectState, and cause some event. The end event of an activity state is caused by that activity, which implies that the activity describes some change between the start event and end event.
EXAMPLES: the movements of a cloud or an animal crossing a road.	USAGE: Use this class for (temporal parts of) activities that are not the direct result of some intent, for example, a person's intent.

Aggregation



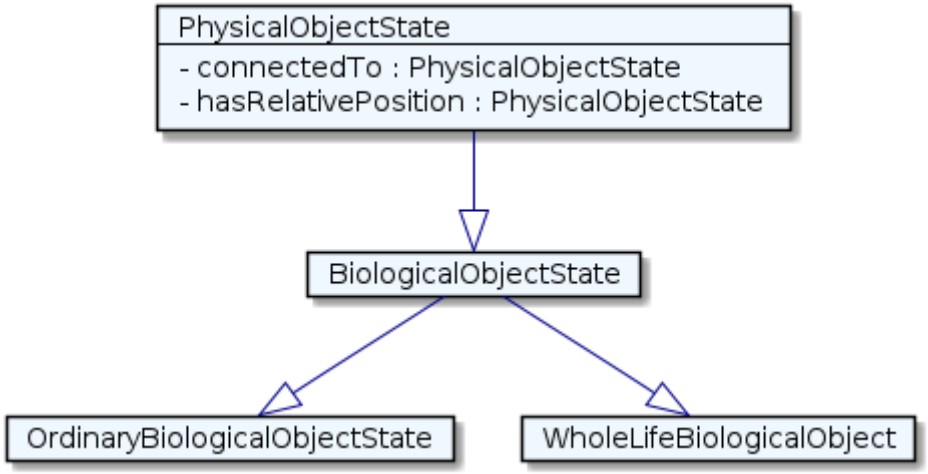
Element	Description
Type	Class
Name	Aggregation
IRI	http://ontology.asam.net/ontologies/Core#Aggregation
Subclass of	Relationship
Comments	DEF: A Relationship where the whole is at least the sum of the parts. Basis for object property aggregatedInto.
EXAMPLES: not applicable.	USAGE: This class will generally not be used directly in the OpenX domain.

AngleQuantity



Element	Description
Type	Class
Name	AngleQuantity
IRI	http://ontology.asam.net/ontologies/Core#AngleQuantity
Subclass of	PhysicalQuantity
Comments	DEF: A PhysicalQuantity that is an angle value in degrees, between 0 and 360.
EXAMPLES:	USAGE: Use this class instead of DirectionQuantity when specifying angles that are not actual directions respective to some coordinate system.

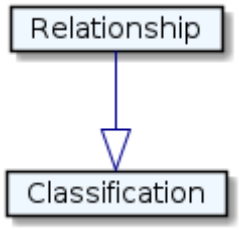
BiologicalObjectState



Element	Description
Type	Class

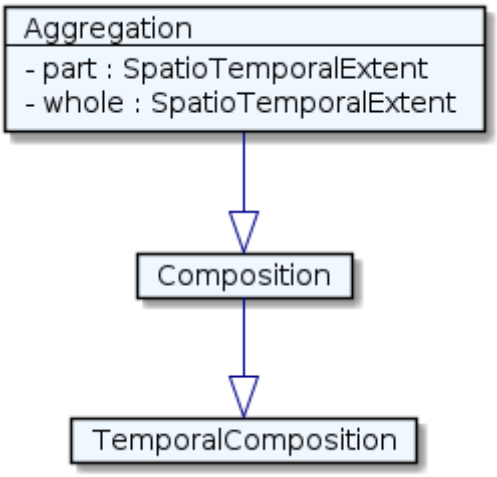
Element	Description
Name	BiologicalObjectState
IRI	http://ontology.asam.net/ontologies/Core#BiologicalObjectState
Subclass of	PhysicalObjectState
Comments	DEF: A PhysicalObjectState that sustains itself and reproduces. A BiologicalObjectState may represent the whole life of the object or a temporal part of it.
EXAMPLES: a BiologicalObjectState that is not an OrdinaryBiologicalObjectState would be one that survives the replacement of all of its parts, so an example might be my dog (which might be a completely different dog over time).	USAGE: generally use OrdinaryBiologicalObjectState instead of this class

Classification



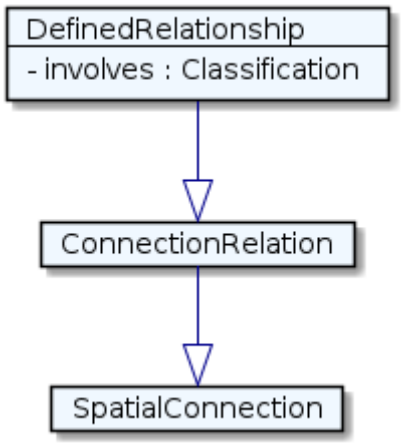
Element	Description
Type	Class
Name	Classification
IRI	http://ontology.asam.net/ontologies/Core#Classification
Subclass of	Relationship
Comments	DEF: A Relationship where a thing is a member of a class. Basis for object properties memberOf and hasMember.
EXAMPLES: not applicable.	USAGE: This class will generally not be used directly in the OpenX domain.

Composition



Element	Description
Type	Class
Name	Composition
IRI	http://ontology.asam.net/ontologies/Core#Composition
Subclass of	Aggregation
Comments	DEF: An Aggregation where the whole is an arrangement of the parts that results in emergent properties. Basis for object properties partOf and hasPart.
EXAMPLES: not applicable.	USAGE: This class will generally not be used directly in the OpenX domain.

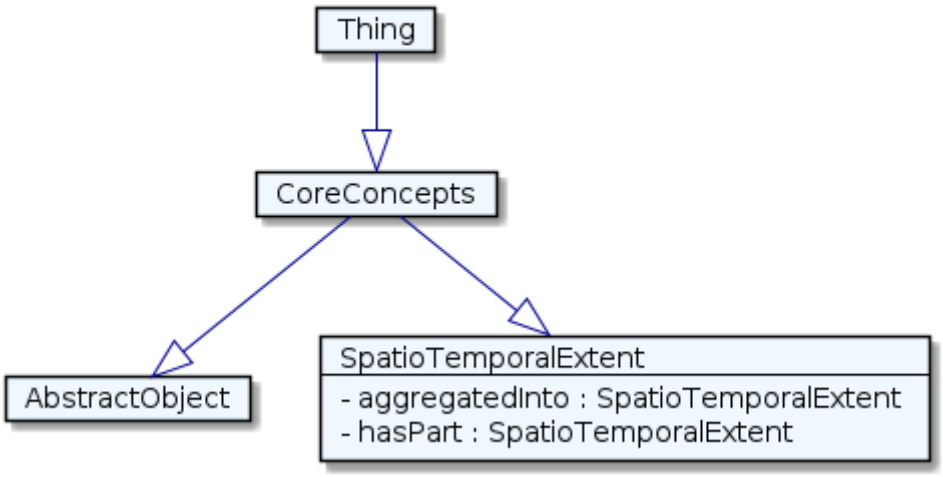
ConnectionRelation



Element	Description
Type	Class
Name	ConnectionRelation
IRI	http://ontology.asam.net/ontologies/Core#ConnectionRelation

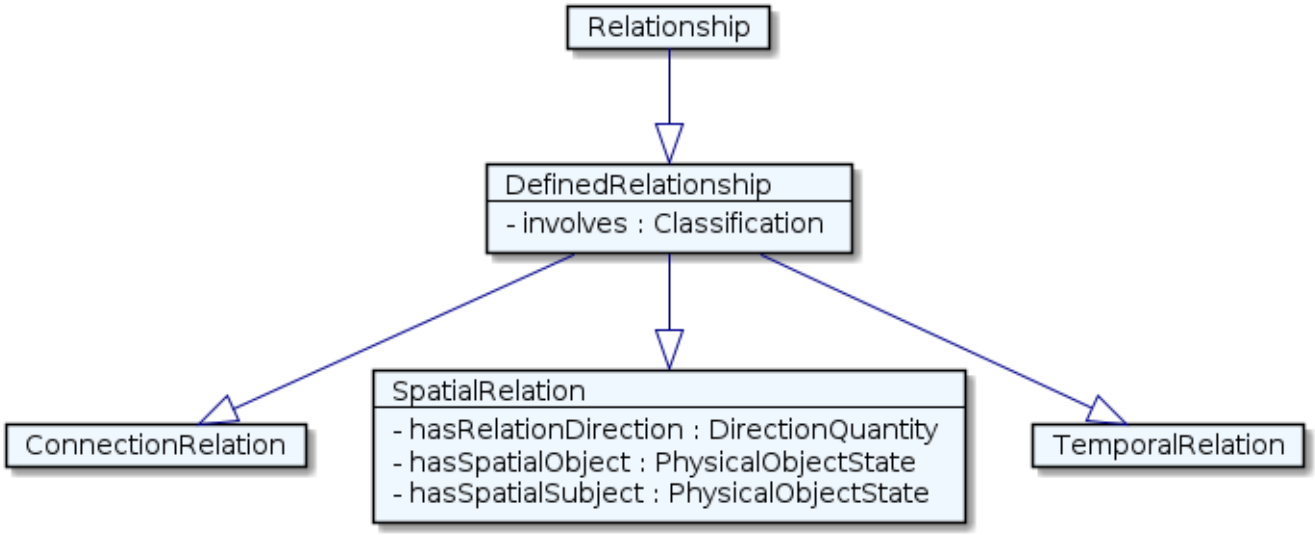
Element	Description
Subclass of	DefinedRelationship
Comments	DEF: A DefinedRelationship for relations between things that are connected in any way, physically or otherwise. Basis for the object property connectedTo.
EXAMPLES:	USAGE: Use this class to express a connection between two things as a reified relationship, e.g. in order to specify characteristics such as the angle of the connection.

CoreConcepts



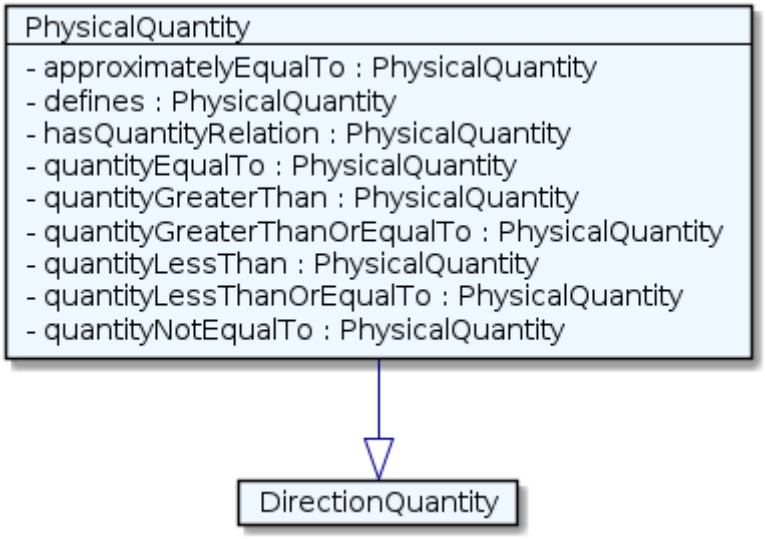
Element	Description
Type	Class
Name	CoreConcepts
IRI	http://ontology.asam.net/ontologies/Core#CoreConcepts
Subclass of	Thing
Comments	DEF: Top-level container that separates core concepts in the OpenXOntology. The CoreConcepts define basic concepts, such as physical objects, states, and events. The core ontology of ASAM OpenXOntology corresponds to a top-level ontology or upper ontology. The core ontology of ASAM OpenXOntology is based on HQDM.

DefinedRelationship



Element	Description
Type	Class
Name	DefinedRelationship
IRI	http://ontology.asam.net/ontologies/Core#DefinedRelationship
Subclass of	Relationship
Comments	DEF: A Relationship of a certain kind. This may be temporal, spatial, compositional, or other other relationships.
EXAMPLES: not applicable.	USAGE: This class will generally not be used directly in the OpenX domain.

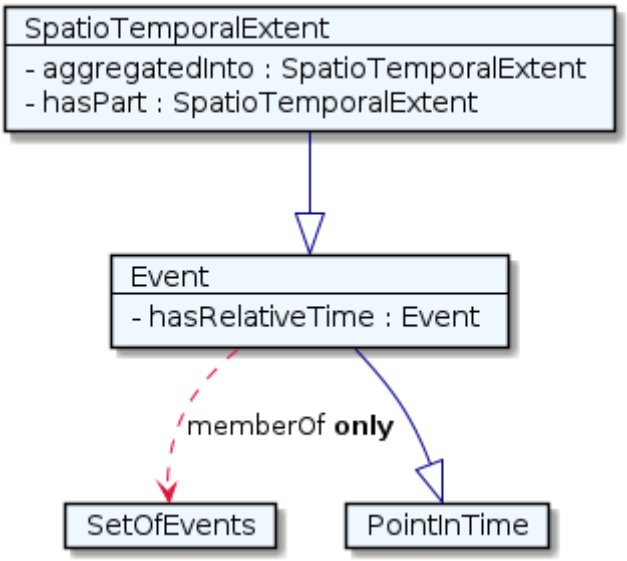
DirectionQuantity



Element	Description
Type	Class

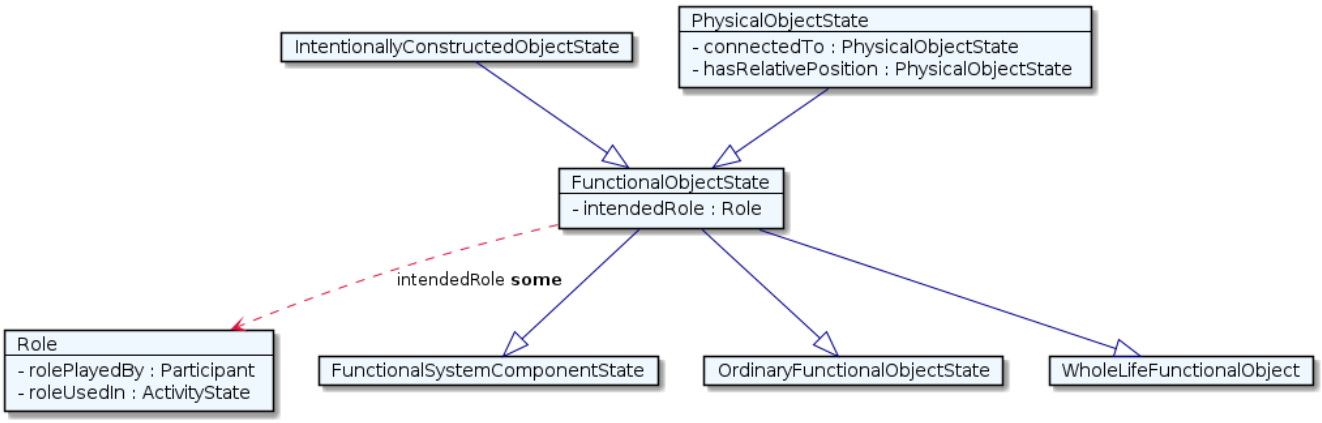
Element	Description
Name	DirectionQuantity
IRI	http://ontology.asam.net/ontologies/Core#DirectionQuantity
Subclass of	PhysicalQuantity
Comments	DEF: A PhysicalQuantity that defines a direction in degrees, between 0 and 360. May be used to quantify the direction of a vector described by a SpatialRelation, a SeparationDistance, or similar.
EXAMPLES:	USAGE: Use this class instead of AngleQuantity when specifying actual directions respective to some coordinate system.

Event



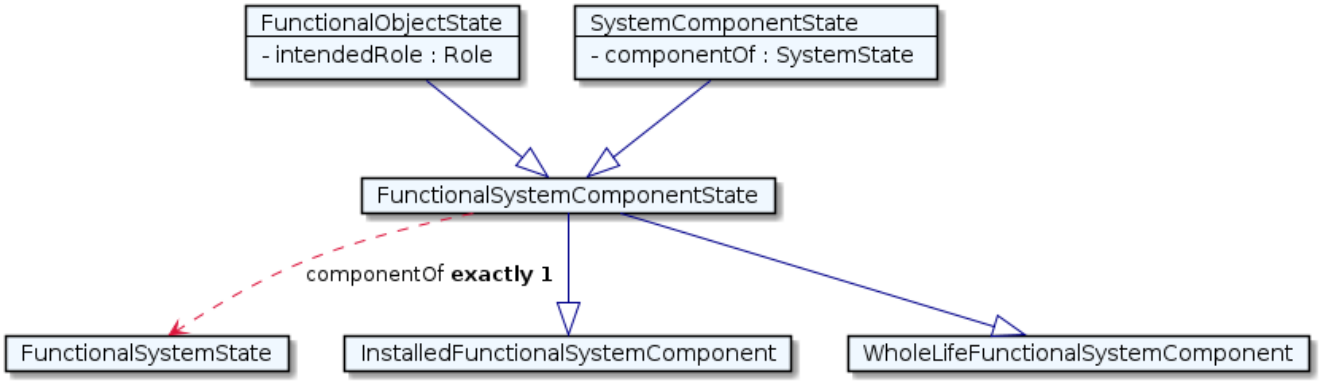
Element	Description
Type	Class
Name	Event
IRI	http://ontology.asam.net/ontologies/Core#Event
Subclass of	SpatioTemporalExtent
Restriction	memberOf **only** SetOfEvents
Disjoint with	State
Comments	DEF: A SpatioTemporalExtent with a time extension of zero, but with an extension in space. Events mark changes in states and are used for something instantaneous.
EXAMPLES:	USAGE: Use this class to specify the state and/or end of activities and temporal parts of physical objects.

FunctionalObjectState



Element	Description
Type	Class
Name	FunctionalObjectState
IRI	http://ontology.asam.net/ontologies/Core#FunctionalObjectState
Subclass of	IntentionallyConstructedObjectState
Subclass of	PhysicalObjectState
Restriction	intendedRole **some** Role
Comments	DEF: An IntentionallyConstructedObjectState and PhysicalObjectState that has an intendedRole. A FunctionalObjectState may represent the whole life of the object or a temporal part of it.
EXAMPLES: a FunctionalObjectState that is not an OrdinaryFunctionalObjectState would be one that survives the replacement of all of its parts, so an example might be my car (which might be a completely different car over time).	USAGE: generally use OrdinaryFunctionalObjectState instead of this class

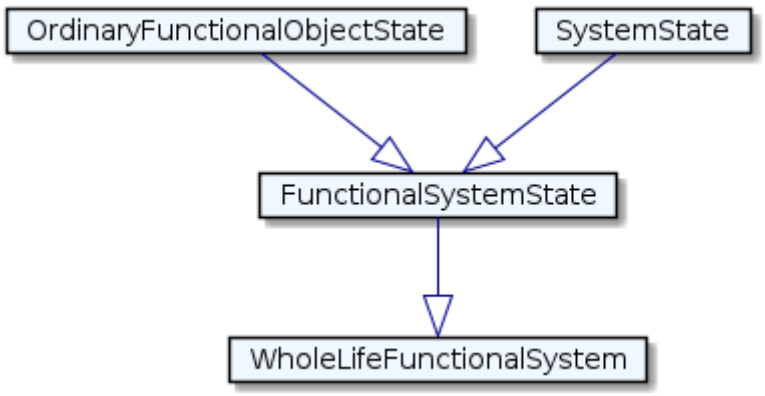
FunctionalSystemComponentState



Element	Description
Type	Class

Element	Description
Name	FunctionalSystemComponentState
IRI	http://ontology.asam.net/ontologies/Core#FunctionalSystemComponentState
Subclass of	FunctionalObjectState
Subclass of	SystemComponentState
Restriction	componentOf **exactly 1** FunctionalSystemState
Comments	DEF: An IntentionallyConstructedObjectState that represents a replaceable component of a FunctionalSystem. The object property componentOf is used to relate the object to the FunctionalSystem. A FunctionalSystemComponentState may be the whole life of the component or a temporal part of it.
EXAMPLES: markings of road or engines of vehicles	USAGE: Use this class to represent the components of things that were created for a specific purpose, for example markings of road or engines of vehicles.

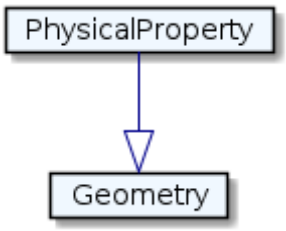
FunctionalSystemState



Element	Description
Type	Class
Name	FunctionalSystemState
IRI	http://ontology.asam.net/ontologies/Core#FunctionalSystemState
Subclass of	OrdinaryFunctionalObjectState
Subclass of	SystemState
Comments	DEF: An OrdinaryFunctionalObjectState that is also a SystemState.

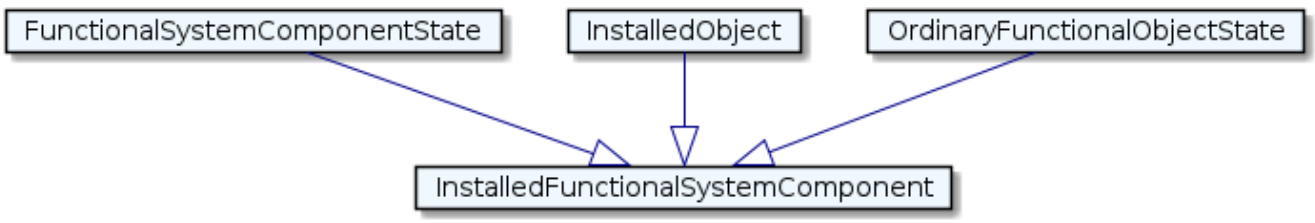
Element	Description
EXAMPLES: Vehicles, traffic infrastructure, buildings, traffic lights.	USAGE: Use this class for describing (temporal parts) of concrete (actual, materialized) systems that cease to exist when all of their parts are removed. Often combined with OrdinaryBiologicalObjectState or OrdinaryFunctionalObjectState

Geometry



Element	Description
Type	Class
Name	Geometry
IRI	http://ontology.asam.net/ontologies/Core#Geometry
Subclass of	PhysicalProperty
Comments	DEF: A PhysicalProperty that describes a spatial characteristic of an Object in a 1D, 2D or 3D space. Unlike "shape", which only refers to the outer surface, "geometry" can include other characteristics, e.g. different kind of projections like cross section, road geometry.
EXAMPLES:	USAGE:

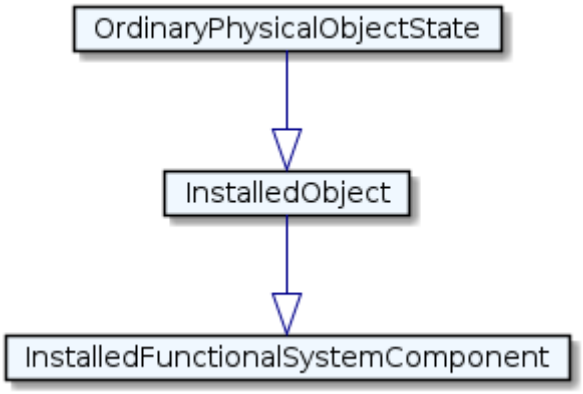
InstalledFunctionalSystemComponent



Element	Description
Type	Class
Name	InstalledFunctionalSystemComponent
IRI	http://ontology.asam.net/ontologies/Core#InstalledFunctionalSystemComponent

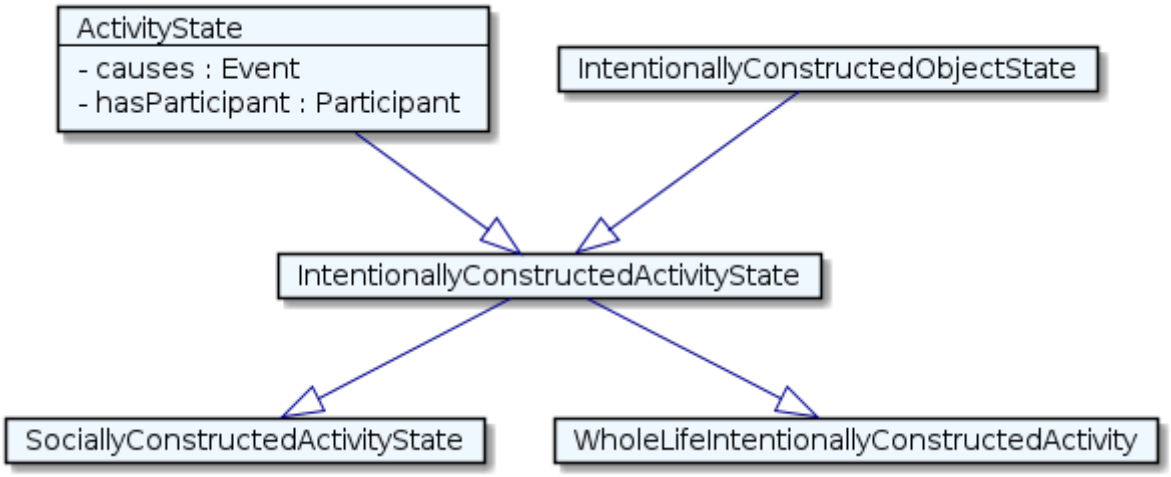
Element	Description
Subclass of	FunctionalSystemComponentState
Subclass of	InstalledObject
Subclass of	OrdinaryFunctionalObjectState
Comments	DEF: An InstalledObject that is also a OrdinaryFunctionalObjectState and a FunctionalSystemComponentState.
EXAMPLES: the particular tire that was installed on car42's right front wheel between time1 and time2	USAGE: Use this class for describing the actual, materialized installed components of a system.

InstalledObject



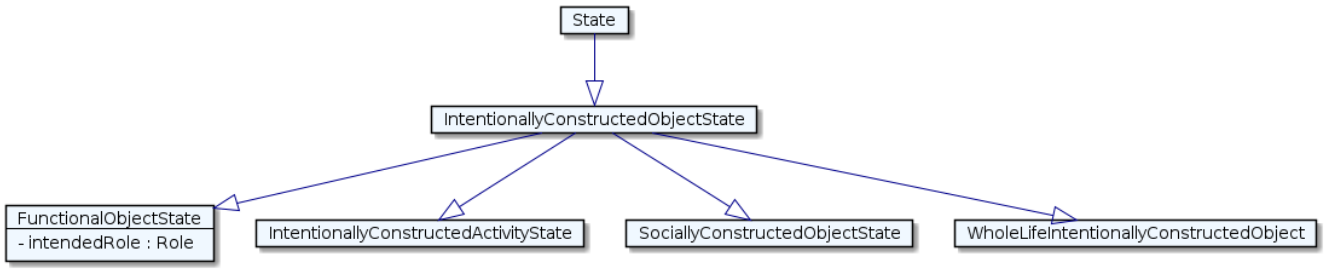
Element	Description
Type	Class
Name	InstalledObject
IRI	http://ontology.asam.net/ontologies/Core#InstalledObject
Subclass of	OrdinaryPhysicalObjectState
Comments	DEF: An OrdinaryPhysicalObjectState that is installed in a system, meaning that is also a SystemComponentState. The state of the ordinary physical object is the temporal part that covers the time from when the ordinary physical object is installed in the system to when it is removed.
EXAMPLES: The time that the traffic sign with the serial number 42 is installed at a specific location on highway 66. (note that this would actually be an InstalledFunctionalSystemComponent because the highway is a FunctionalSystem).	USAGE: Use this class to describe the temporal part of a physical object when it is the actual component of a system.

IntentionallyConstructedActivityState



Element	Description
Type	Class
Name	IntentionallyConstructedActivityState
IRI	http://ontology.asam.net/ontologies/Core#IntentionallyConstructedActivityState
Subclass of	ActivityState
Subclass of	IntentionallyConstructedObjectState
Comments	DEF: An ActivityState that is also an IntentionallyConstructedObjectState.
EXAMPLES: the changing of a signal state by a device in an intelligent transportation system	USAGE: Use this class to describe planned activities by single persons or intelligent devices, such as the changing of a signal state by a device in an intelligent transportation system.

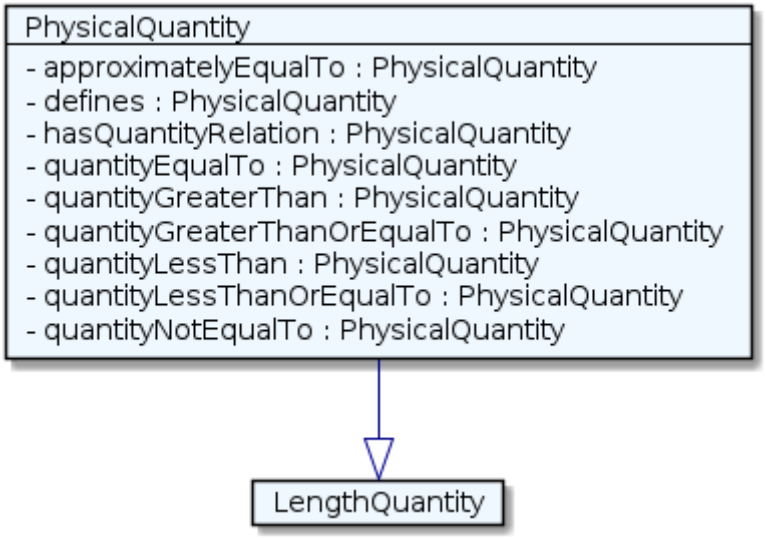
IntentionallyConstructedObjectState



Element	Description
Type	Class
Name	IntentionallyConstructedObjectState
IRI	http://ontology.asam.net/ontologies/Core#IntentionallyConstructedObjectState
Subclass of	State

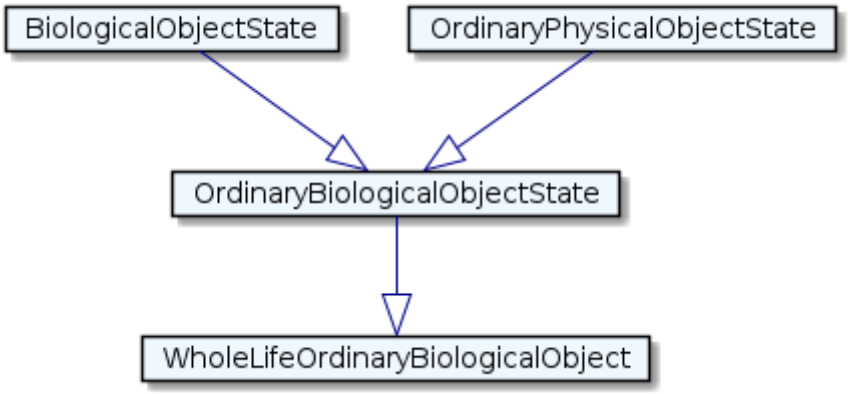
Element	Description
Comments	DEF: A State that exists because of an act of will or agreement. That means that IntentionallyConstructedObjects are constructed intentionally by one or more things that have intent, usually humans or robots.
EXAMPLES: an idea, a design, or a component specification	USAGE: Generally use FunctionalObjectState or one of its subclasses rather than this class. However, a thing that was created by humans for some purpose but does not exist materially, such as an idea, a design, or a component specification, would be a IntentionallyConstructedObjectState but not a FunctionalObjectState.

LengthQuantity



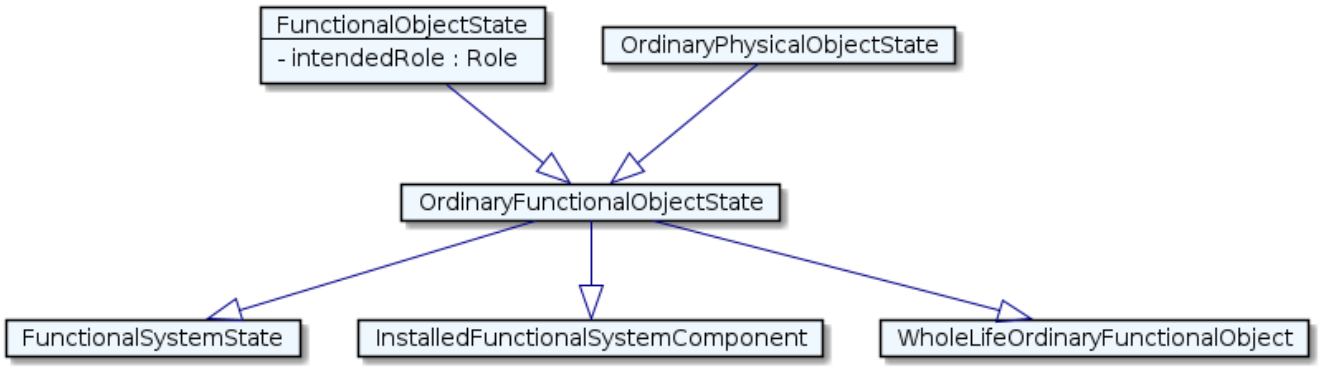
Element	Description
Type	Class
Name	LengthQuantity
IRI	http://ontology.asam.net/ontologies/Core#LengthQuantity
Subclass of	PhysicalQuantity
Comments	DEF: A PhysicalQuantity that is a length value in meters.
EXAMPLES:	USAGE:

OrdinaryBiologicalObjectState



Element	Description
Type	Class
Name	OrdinaryBiologicalObjectState
IRI	http://ontology.asam.net/ontologies/Core#OrdinaryBiologicalObjectState
Subclass of	BiologicalObjectState
Subclass of	OrdinaryPhysicalObjectState
Comments	DEF: A BiologicalObjectState that describes biological objects that do not survive changing all their parts at once. An OrdinaryBiologicalObjectState may represent the whole life of the object or a temporal part of it.
EXAMPLES: humans, animals, and trees	USAGE: Use this class for describing temporal parts of living things that cease to exist when all of their parts are removed.

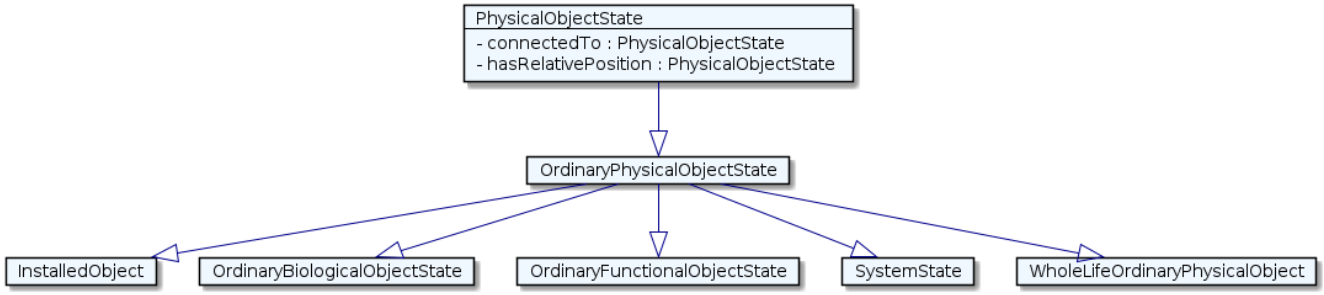
OrdinaryFunctionalObjectState



Element	Description
Type	Class
Name	OrdinaryFunctionalObjectState
IRI	http://ontology.asam.net/ontologies/Core#OrdinaryFunctionalObjectState

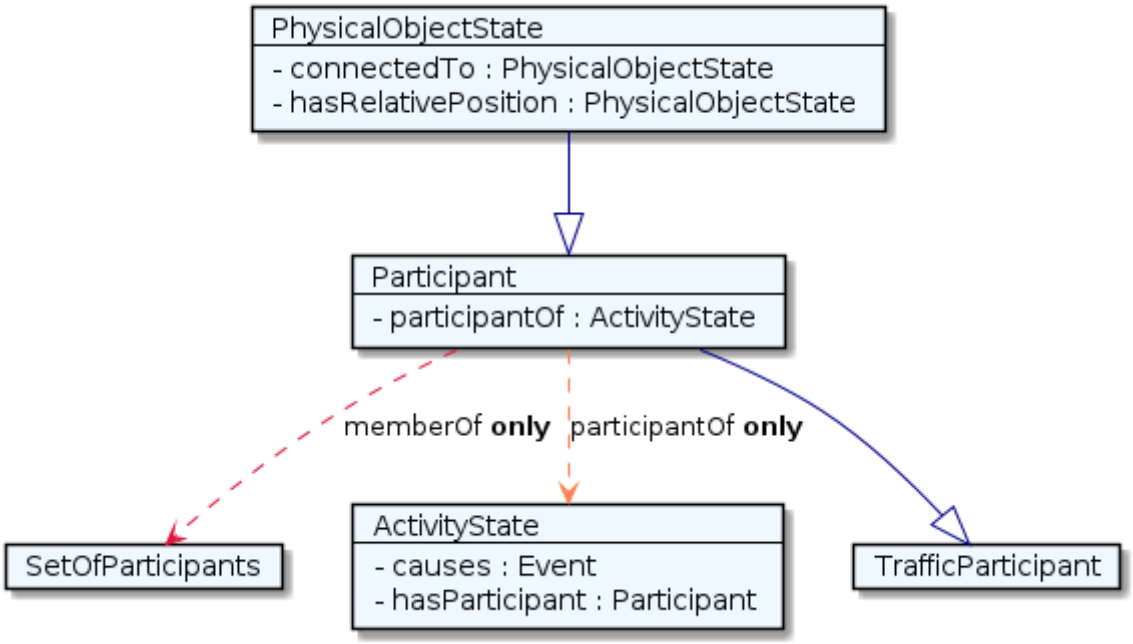
Element	Description
Subclass of	FunctionalObjectState
Subclass of	OrdinaryPhysicalObjectState
Comments	DEF: A FunctionalObjectState that describes functional objects that do not survive changing all their parts at once. An OrdinaryFunctionalObjectState may represent the whole life of the object or a temporal part of it.
EXAMPLES: A steel bar with no components and is not a component of any other thing but was created for a specific purpose could be an OrdinaryFunctionalObjectState.	USAGE: Use this class for temporal parts of manufactured things that were constructed for some purpose and that cease to exist when all of their parts are removed. However, if the thing is a system and/or a system component, it is preferable to use the corresponding subclass.

OrdinaryPhysicalObjectState



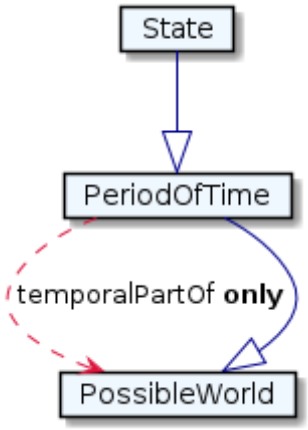
Element	Description
Type	Class
Name	OrdinaryPhysicalObjectState
IRI	http://ontology.asam.net/ontologies/Core#OrdinaryPhysicalObjectState
Subclass of	PhysicalObjectState
Comments	DEF: A PhysicalObjectState that describes physical objects that do not survive changing all their parts at once. An OrdinaryPhysicalObjectState may represent the whole life of the object or a temporal part of it.
EXAMPLES: cloud, raindrop, rock, sunlight	USAGE: Use this class for temporal parts of physical objects that cease to exist when all of their parts are removed and that are neither biological objects (OrdinaryBiologicalObjectState) nor manufactured things constructed for some purpose (OrdinaryFunctionalObjectState).

Participant



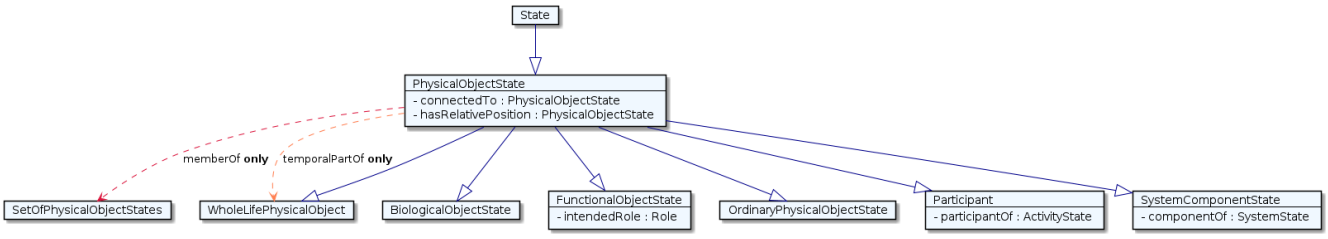
Element	Description
Type	Class
Name	Participant
IRI	http://ontology.asam.net/ontologies/Core#Participant
Subclass of	PhysicalObjectState
Restriction	memberOf **only** SetOfParticipants
Restriction	participantOf **only** ActivityState
Comments	DEF: A PhysicalObjectState that represents a participant of an ActivityState. The ActivityState consists of these Participants, where each Participant is a member of the Role in which it is participating.
EXAMPLES: The state (temporal part) of a vehicle that is making a left turn.	USAGE: Use this class for describing the temporal part of physical objects that are participating in activities. Usually combined with OrdinaryBiologicalObjectState or OrdinaryFunctionalObjectState

PeriodOfTime



Element	Description
Type	Class
Name	PeriodOfTime
IRI	http://ontology.asam.net/ontologies/Core#PeriodOfTime
Subclass of	State
Restriction	temporalPartOf **only** PossibleWorld
Comments	DEF: A State that is a temporal part of some PossibleWorld. That means the period of time is a temporal duration of some possible world, which could be the actual world.
EXAMPLES:	USAGE:

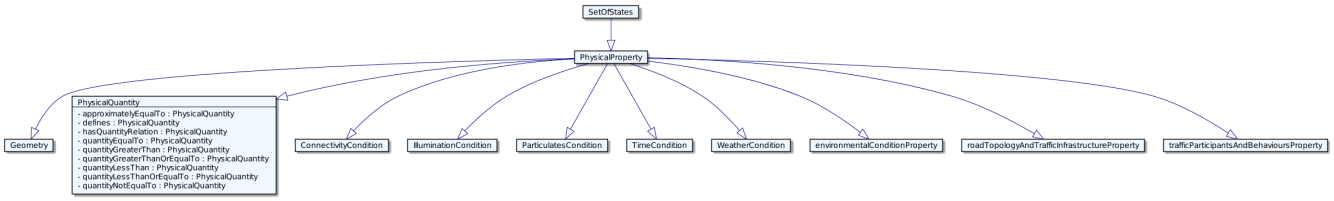
PhysicalObjectState



Element	Description
Type	Class
Name	PhysicalObjectState
IRI	http://ontology.asam.net/ontologies/Core#PhysicalObjectState
Subclass of	State
Restriction	memberOf **only** SetOfPhysicalObjectStates
Restriction	temporalPartOf **only** WholeLifePhysicalObject

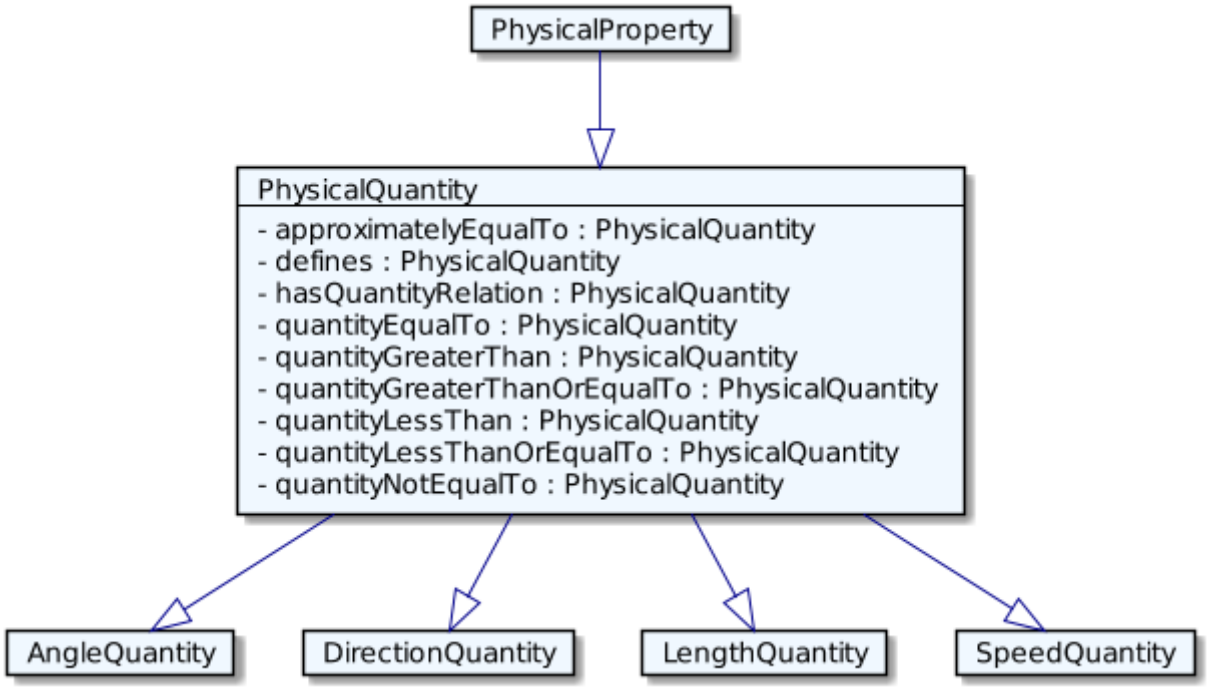
Element	Description
Comments	DEF: A State that consists of a distribution of matter and/or energy. A PhysicalObjectState is understood to have a bounded distribution, and so it can be identified as that parcel of matter and/or energy over time. A PhysicalObjectState can be thought of as characterizing what does not change over time of a State.
EXAMPLES:	USAGE: Generally use a subclass of this class.

PhysicalProperty



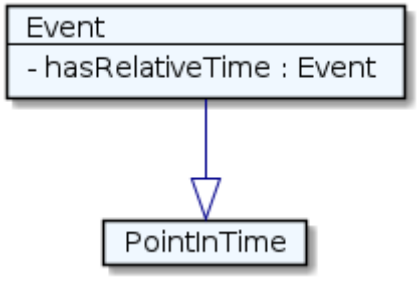
Element	Description
Type	Class
Name	PhysicalProperty
IRI	http://ontology.asam.net/ontologies/Core#PhysicalProperty
Subclass of	SetOfStates
Comments	DEF: A SetOfStates is some characteristic that is the same for each state that possesses it (is a memberOf it). More accurately, a PhysicalProperty is a Set that groups states by a specific characteristic, but PhysicalProperty is understood to be the specific characteristic shared by its members.
EXAMPLES: The color red is a PhysicalProperty.	USAGE: Use this class for physical properties of both physical objects, for example mass and length, and activities, for example speed and duration.

PhysicalQuantity



Element	Description
Type	Class
Name	PhysicalQuantity
IRI	http://ontology.asam.net/ontologies/Core#PhysicalQuantity
Subclass of	PhysicalProperty
Comments	DEF: A PhysicalProperty that represents a measurable quantity of a characteristic.
EXAMPLES: length, speed, and angle.	USAGE:

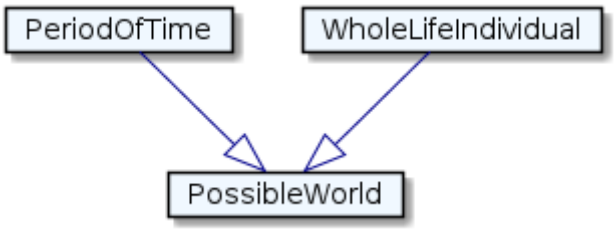
PointInTime



Element	Description
Type	Class
Name	PointInTime
IRI	http://ontology.asam.net/ontologies/Core#PointInTime
Subclass of	Event

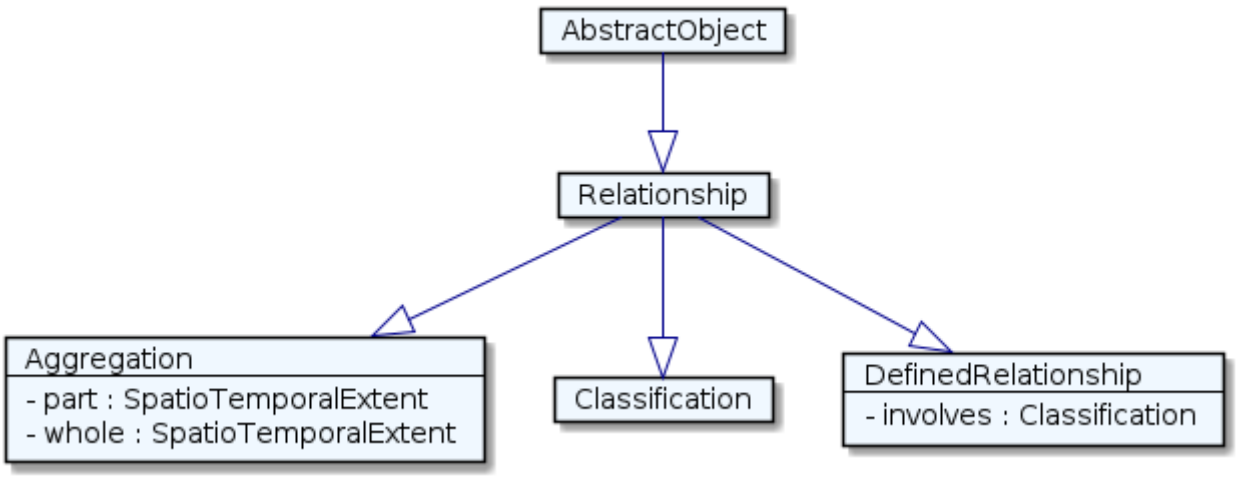
Element	Description
Comments	DEF: An Event that is the whole of space at an instant from some viewpoint.
EXAMPLES:	USAGE:

PossibleWorld



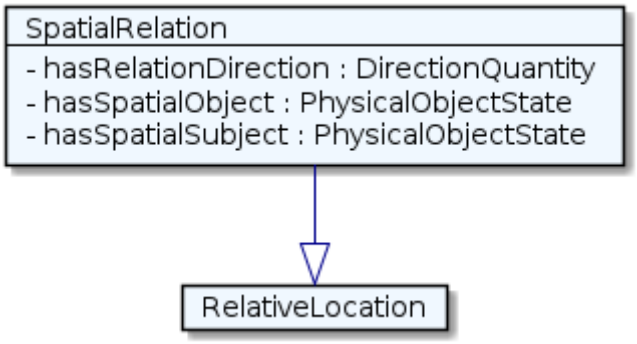
Element	Description
Type	Class
Name	PossibleWorld
IRI	http://ontology.asam.net/ontologies/Core#PossibleWorld
Subclass of	PeriodOfTime
Subclass of	WholeLifeIndividual
Comments	DEF: A WholeLifeIndividual that is a complete spatio-temporal history of some possible world. The actual world is one of the possible worlds.
EXAMPLES: a description could contain two PossibleWorlds, the possible world where carA stopped at the pedestrian crossing and where carA did not stop.	USAGE: Use this class to model modality (modal realism rather than modal logic), such as several possible planned futures or alternative pasts.

Relationship



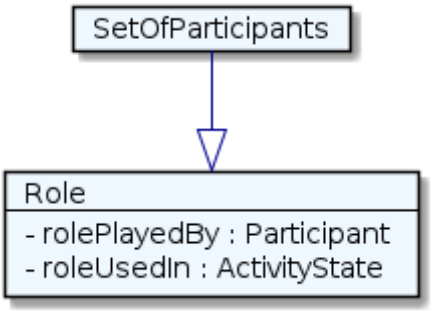
Element	Description
Type	Class
Name	Relationship
IRI	http://ontology.asam.net/ontologies/Core#Relationship
Subclass of	AbstractObject
Comments	DEF: Relationships form the basis for many object properties.
EXAMPLES: not applicable.	USAGE: This class will generally not be used directly in the OpenX domain.

RelativeLocation



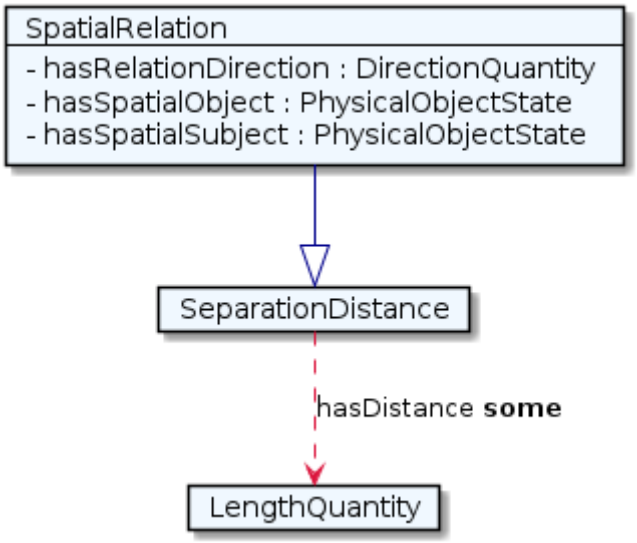
Element	Description
Type	Class
Name	RelativeLocation
IRI	http://ontology.asam.net/ontologies/Core#RelativeLocation
Subclass of	SpatialRelation
Comments	DEF: A SpatialRelation that describes that the subject is located on the object. Basis for the object property locatedOn.
EXAMPLES:	USAGE: Use this class to express the location of one thing with respect to another as a reified relationship, e.g. in order to specify characteristics such as the precise position of location.

Role



Element	Description
Type	Class
Name	Role
IRI	http://ontology.asam.net/ontologies/Core#Role
Subclass of	SetOfParticipants
Comments	DEF: A SetOfParticipants where each member participates in the same way in an ActivityState. In HQDM, a role is a kind of participant. So subclasses of Participant are members of the class Role, including TrafficParticipant, Owner, Employer, and Asset.
EXAMPLES: subclasses of Participant, including TrafficParticipant, Owner, Employer, and Asset	USAGE:

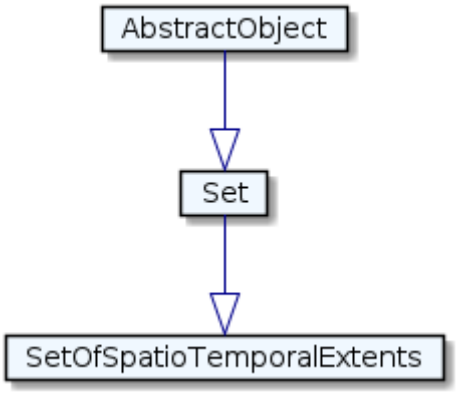
SeparationDistance



Element	Description
Type	Class
Name	SeparationDistance
IRI	http://ontology.asam.net/ontologies/Core#SeparationDistance

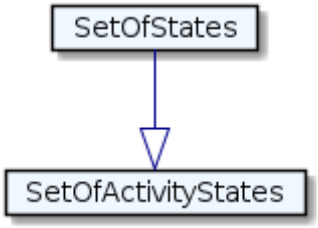
Element	Description
Subclass of	SpatialRelation
Restriction	hasDistance **some** LengthQuantity
Comments	DEF: A SpatialRelation that also describes a distance between two connected objects. Gives a complete description of a vector and an exact relative position.
EXAMPLES:	USAGE: Use this class to express the separation distance between two things as a reified relationship, e.g. in order to specify characteristics such as the distance and direction of the separation.

Set



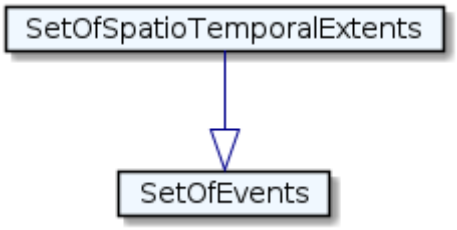
Element	Description
Type	Class
Name	Set
IRI	http://ontology.asam.net/ontologies/Core#Set
Subclass of	AbstractObject
Comments	DEF: An AbstractObject that has members and whose identity is defined by those members. The members may be other sets as well as specific spatio-temporal extents.
EXAMPLES: not applicable.	USAGE: This class will generally not be used directly in the OpenX domain.

SetOfActivityStates



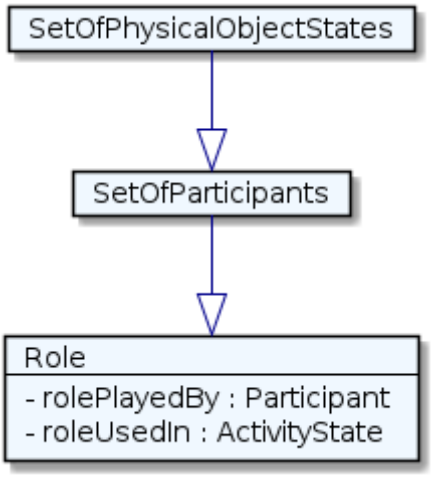
Element	Description
Type	Class
Name	SetOfActivityStates
IRI	http://ontology.asam.net/ontologies/Core#SetOfActivityStates
Subclass of	SetOfStates
Comments	DEF: A SetOfStates that groups activities.
EXAMPLES:	USAGE: Use this class to describe specific sets or kinds of ActivityStates that are not available already as subclasses of ActivityState.

SetOfEvents



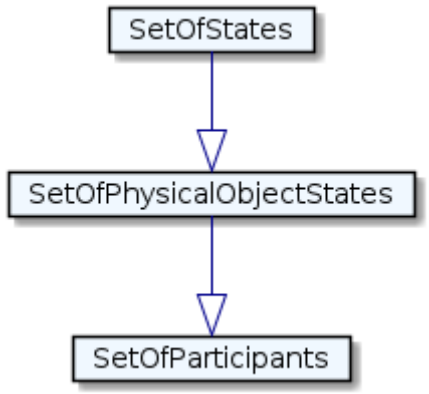
Element	Description
Type	Class
Name	SetOfEvents
IRI	http://ontology.asam.net/ontologies/Core#SetOfEvents
Subclass of	SetOfSpatioTemporalExtents
Comments	DEF: A SetOfSpatioTemporalExtents that groups kinds of events.
EXAMPLES: triggered and absolute events, start and end events, etc.	USAGE: Use this class to describe specific sets or kinds of Events that are not available already as subclasses of Event.

SetOfParticipants



Element	Description
Type	Class
Name	SetOfParticipants
IRI	http://ontology.asam.net/ontologies/Core#SetOfParticipants
Subclass of	SetOfPhysicalObjectStates
Comments	DEF: A SetOfPhysicalObjectStates that groups participants of activities.
EXAMPLES:	USAGE: Generally use Role rather than this class.

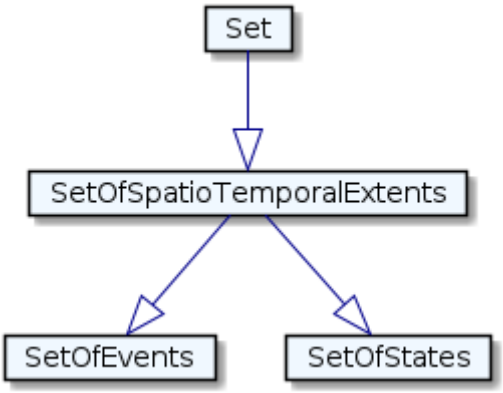
SetOfPhysicalObjectStates



Element	Description
Type	Class
Name	SetOfPhysicalObjectStates
IRI	http://ontology.asam.net/ontologies/Core#SetOfPhysicalObjectStates
Subclass of	SetOfStates
Comments	DEF: A SetOfStates that groups physical object states.

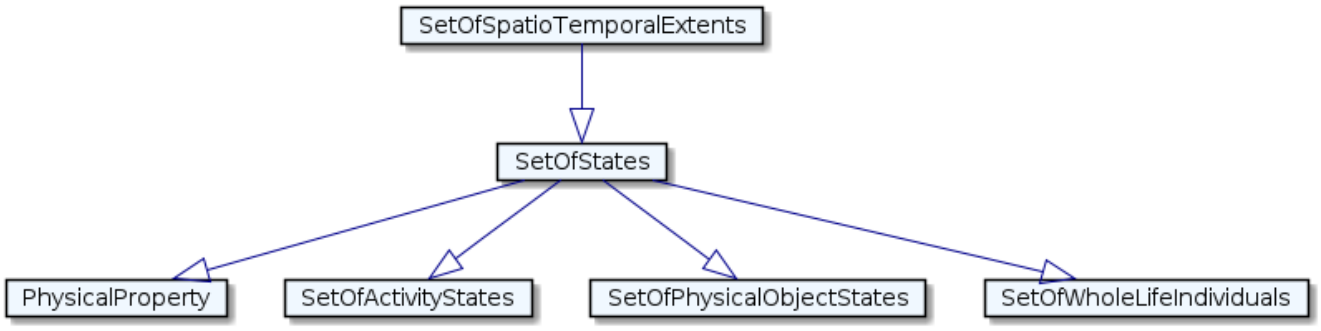
Element	Description
EXAMPLES:	USAGE: Use this class to describe specific sets or kinds of PhysicalObjectStates that are not available already as subclasses of PhysicalObjectState.

SetOfSpatioTemporalExtents



Element	Description
Type	Class
Name	SetOfSpatioTemporalExtents
IRI	http://ontology.asam.net/ontologies/Core#SetOfSpatioTemporalExtents
Subclass of	Set
Comments	DEF: A Set whose members are spatio-temporal extents.
EXAMPLES:	USAGE: Use this class to describe specific sets or kinds of SpatioTemporalExtents that are not available already as subclasses of SpatioTemporalExtent.

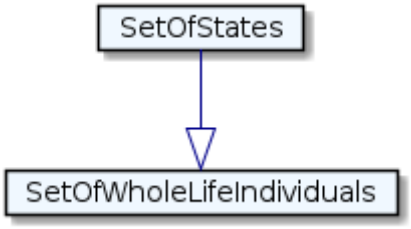
SetOfStates



Element	Description
Type	Class
Name	SetOfStates

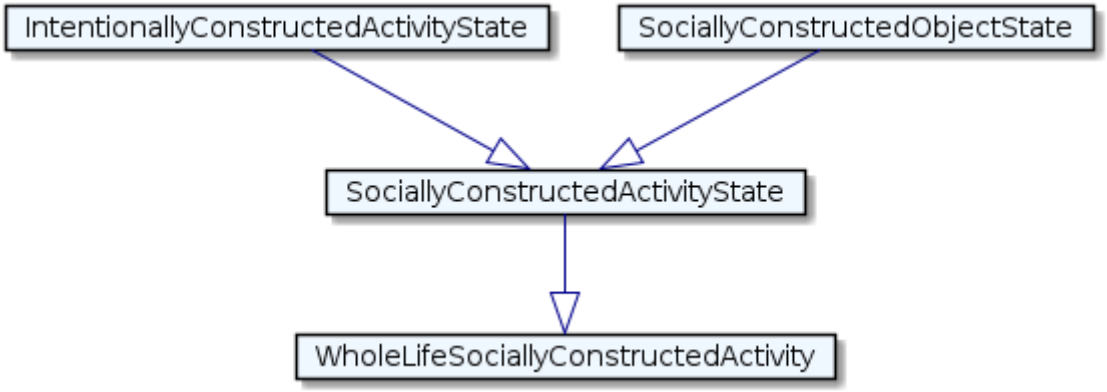
Element	Description
IRI	http://ontology.asam.net/ontologies/Core#SetOfStates
Subclass of	SetOfSpatioTemporalExtents
Comments	DEF: A SetOfSpatioTemporalExtents that groups states.
EXAMPLES:	USAGE: Use this class to describe specific sets or kinds of States that are not available already as subclasses of State.

SetOfWholeLifeIndividuals



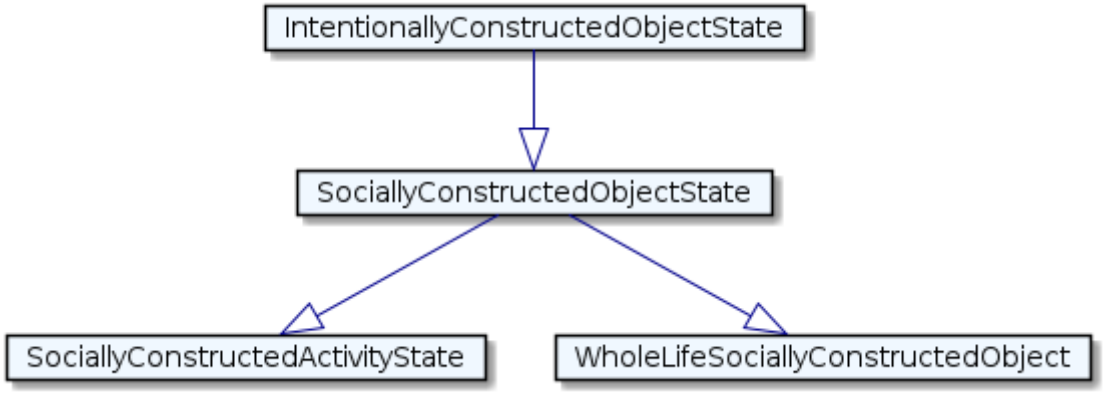
Element	Description
Type	Class
Name	SetOfWholeLifeIndividuals
IRI	http://ontology.asam.net/ontologies/Core#SetOfWholeLifeIndividuals
Subclass of	SetOfStates
Comments	DEF: A SetOfStates that groups whole-life individuals.
EXAMPLES:	USAGE: Use this class to describe specific sets or kinds of WholeLifeIndividuals that are not available already as subclasses of WholeLifeIndividual.

SociallyConstructedActivityState



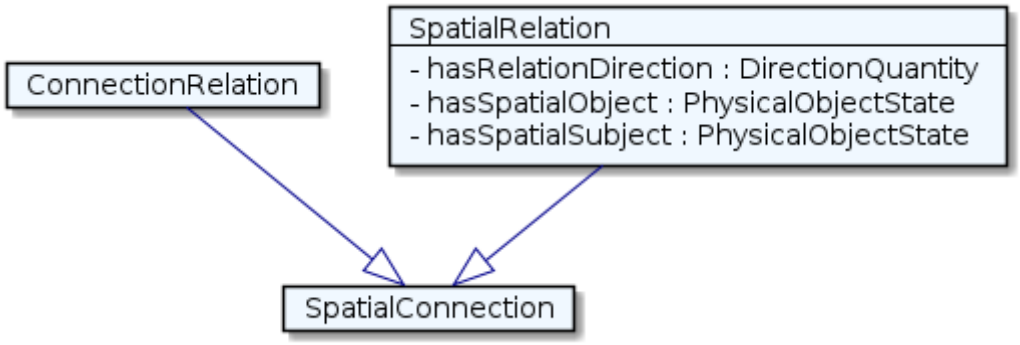
Element	Description
Type	Class
Name	SociallyConstructedActivityState
IRI	http://ontology.asam.net/ontologies/Core#SociallyConstructedActivityState
Subclass of	IntentionallyConstructedActivityState
Subclass of	SociallyConstructedObjectState
Comments	DEF: An ActivityState that is also a SociallyConstructedObjectState.
EXAMPLES: planned activities between multiple people such as meetings; the coordination of multiple traffic signals in an intelligent transportation system.	USAGE: Use this class to describe planned activities by a group of persons or intelligent devices.

SociallyConstructedObjectState



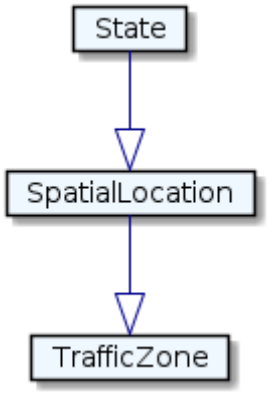
Element	Description
Type	Class
Name	SociallyConstructedObjectState
IRI	http://ontology.asam.net/ontologies/Core#SociallyConstructedObjectState
Subclass of	IntentionallyConstructedObjectState
Comments	DEF: An IntentionallyConstructedObjectState that is necessarily constructed by agreement of or acceptance by many people.
EXAMPLES: contracts, companies, and money	USAGE:

SpatialConnection



Element	Description
Type	Class
Name	SpatialConnection
IRI	http://ontology.asam.net/ontologies/Core#SpatialConnection
Subclass of	ConnectionRelation
Subclass of	SpatialRelation
Comments	DEF: A ConnectionRelation for relations between things that touch. Spatial connections create bridges for the transfer of energy or other things between the objects. Basis for the object property connectedTo.
EXAMPLES:	USAGE: Use this class to express a spatial connection between two things as a reified relationship, e.g. in order to specify characteristics such as the surface area of the connecting surface.

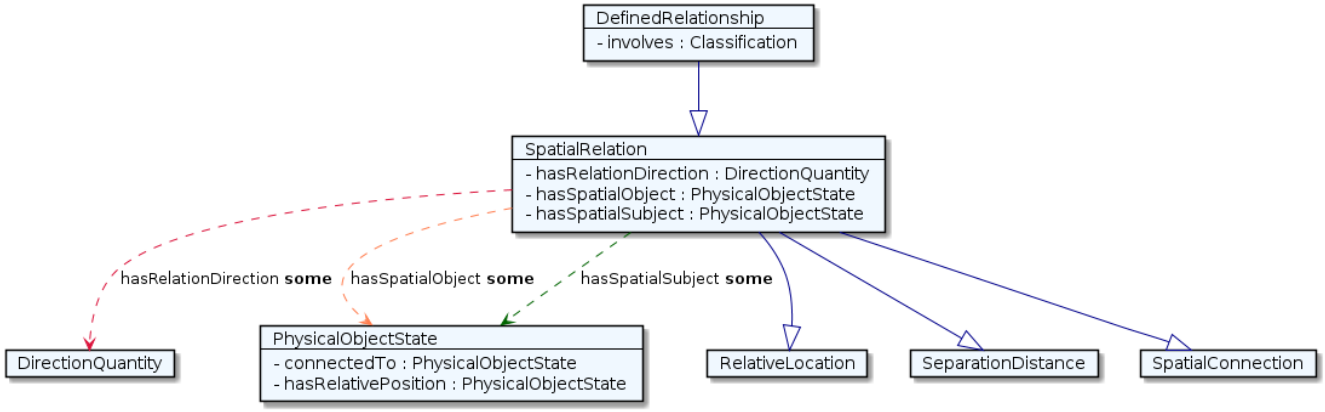
SpatialLocation



Element	Description
Type	Class
Name	SpatialLocation
IRI	http://ontology.asam.net/ontologies/Core#SpatialLocation

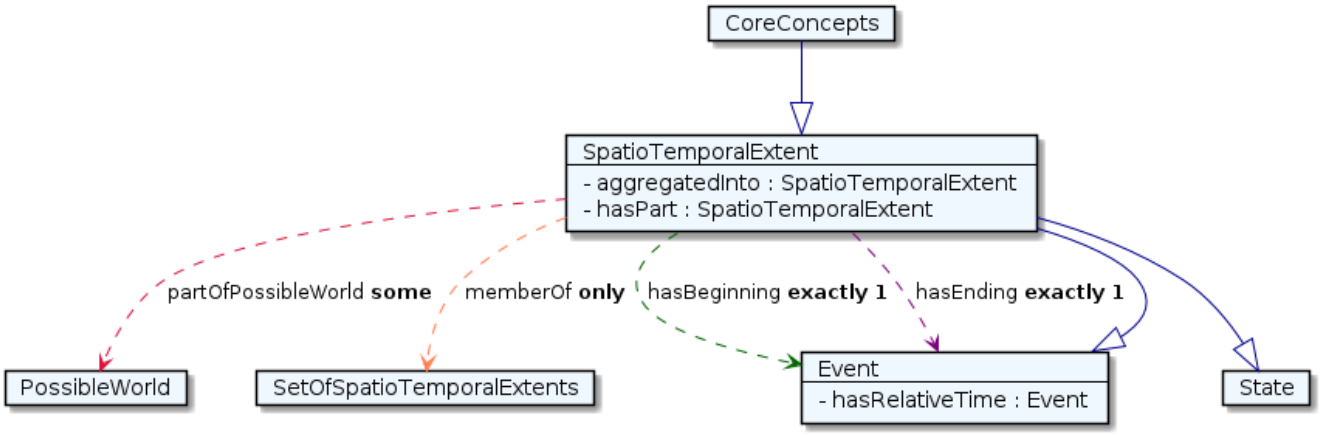
Element	Description
Subclass of	State
Comments	DEF: A State that describes the relative continuity of a position, an area or a space that is important in a defined context. The type of description of a SpatialLocation can be topological, topographical, coordinates, or any other type.
EXAMPLES: the position of an object, a country where certain regulations apply.	USAGE:

SpatialRelation



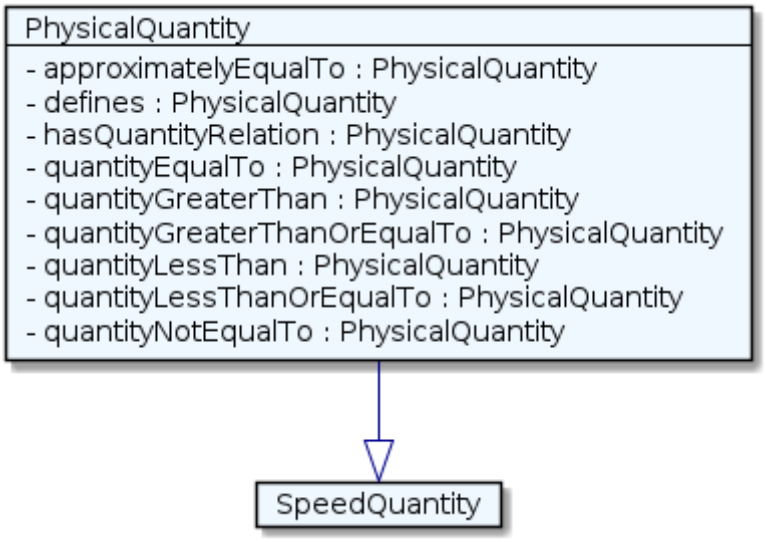
Element	Description
Type	Class
Name	SpatialRelation
IRI	http://ontology.asam.net/ontologies/Core#SpatialRelation
Subclass of	DefinedRelationship
Restriction	hasRelationDirection **some** DirectionQuantity
Restriction	hasSpatialObject **some** PhysicalObjectState
Restriction	hasSpatialSubject **some** PhysicalObjectState
Disjoint with	TemporalRelation
Comments	DEF: A DefinedRelationship between two physical objects that describes their directional relationship, not the distance. Basis for object properties such as rightOf, leftOf, inFrontOf, behind, etc.
EXAMPLES:	USAGE: Use this class to express a general spatial relation between two things as a reified relationship, giving only the direction of the relationship.

SpatioTemporalExtent



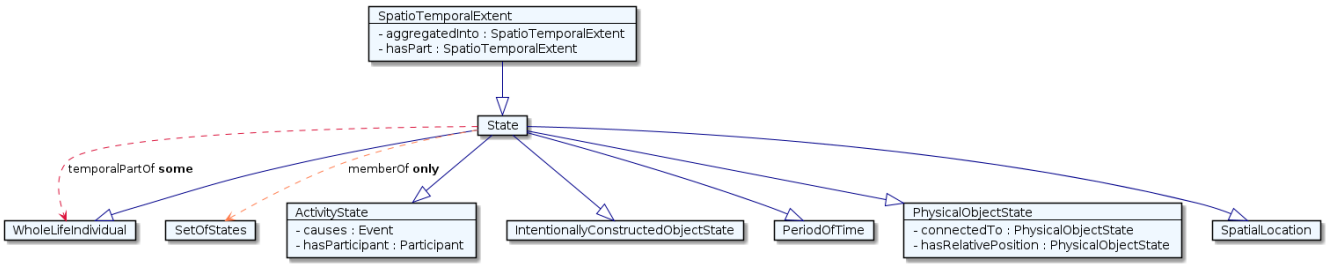
Element	Description
Type	Class
Name	SpatioTemporalExtent
IRI	http://ontology.asam.net/ontologies/Core#SpatioTemporalExtent
Subclass of	CoreConcepts
Restriction	partOfPossibleWorld **some** PossibleWorld
Restriction	memberOf **only** SetOfSpatioTemporalExtents
Restriction	hasBeginning **exactly 1** Event
Restriction	hasEnding **exactly 1** Event
Comments	DEF: A thing that exists in time and space, meaning in four dimensions. Each spatio-temporal extent has a start event and an end event.
EXAMPLES: not applicable.	USAGE: This class will generally not be used directly in the OpenX domain.

SpeedQuantity



Element	Description
Type	Class
Name	SpeedQuantity
IRI	http://ontology.asam.net/ontologies/Core#SpeedQuantity
Subclass of	PhysicalQuantity
Comments	DEF: A PhysicalQuantity that is a speed value in meters per second.
EXAMPLES:	USAGE:

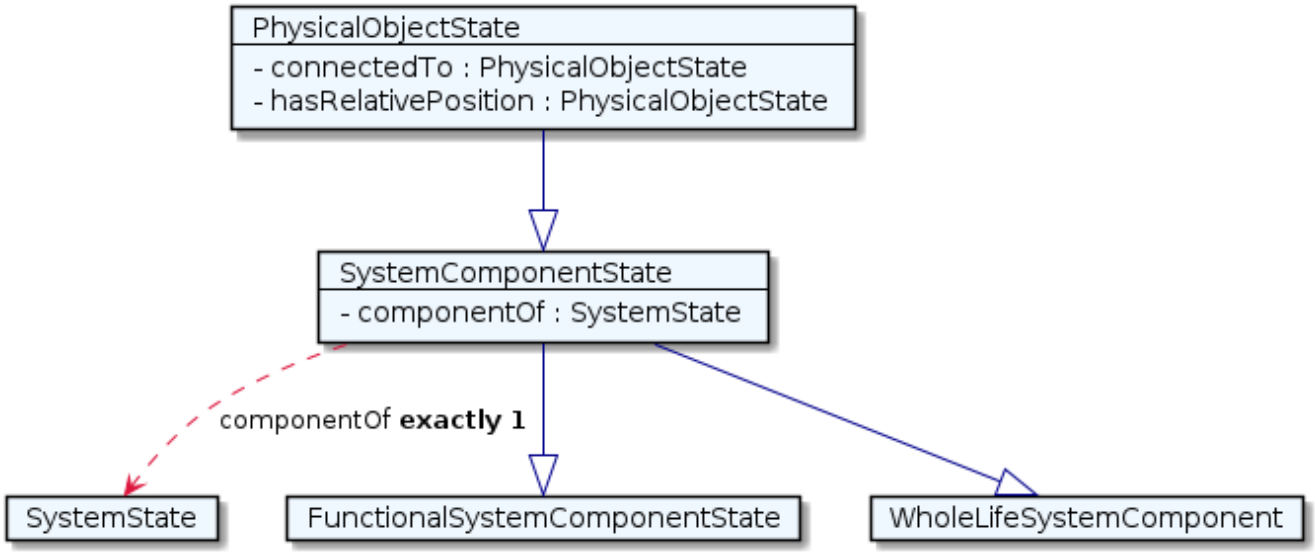
State



Element	Description
Type	Class
Name	State
IRI	http://ontology.asam.net/ontologies/Core#State
Subclass of	SpatioTemporalExtent
Restriction	temporalPartOf **some** WholeLifeIndividual
Restriction	memberOf **only** SetOfStates

Element	Description
Comments	DEF: A SpatioTemporalExtent with non-zero extension in both space and time. Used to describe, for example, the state of a vehicle, a person, or a manufactured system like a factory. States can apply to the whole life of a thing or represent temporal parts of a thing,
EXAMPLES:	USAGE: Use this class to describe the temporal part of a whole-life individual to which some property applies or to describe the temporal part of a whole-life individual that participates in an activity.

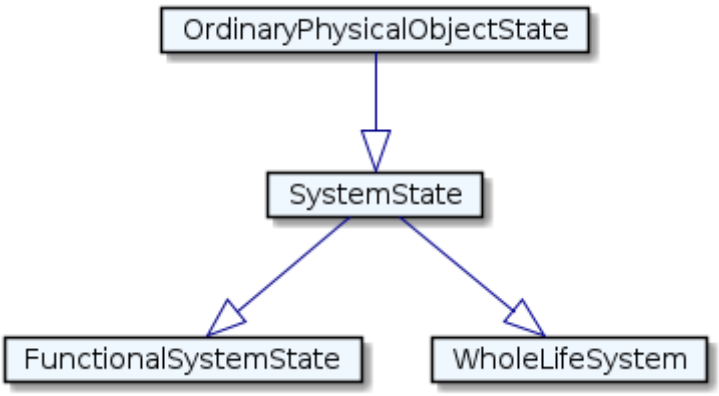
SystemComponentState



Element	Description
Type	Class
Name	SystemComponentState
IRI	http://ontology.asam.net/ontologies/Core#SystemComponentState
Subclass of	PhysicalObjectState
Restriction	componentOf **exactly 1** SystemState
Comments	DEF: A PhysicalObjectState that represents a component of a system. The state may represent the whole life of the component or a temporal part of it. The state can be completely replaced without losing its identity. A SystemComponentState can only exist when the System exists. On the other hand, the OrdinaryPhysicalObject that is installed as the component may exist before or after the System.

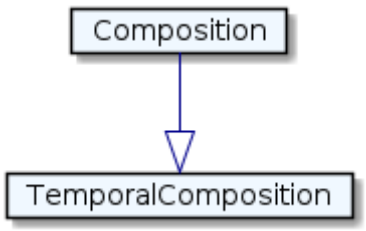
Element	Description
EXAMPLES: vehicles and pedestrians are components of the traffic system (actually FunctionalSystemComponentStates - not WholeLifeIndividuals because the whole life of a vehicle or pedestrian would include temporal parts that are not components of the same traffic system)	USAGE: Use this class only for physical objects that are components of systems that do not have specific functions (are not FunctionalSystems)

SystemState



Element	Description
Type	Class
Name	SystemState
IRI	http://ontology.asam.net/ontologies/Core#SystemState
Subclass of	OrdinaryPhysicalObjectState
Comments	DEF: An OrdinaryPhysicalObjectState that represents a concrete materialized system. Systems are defined as an organized or connected group of physical objects. A SystemState may represent the whole life of the system or a temporal part of it.
EXAMPLES: A natural weather system.	USAGE: Use this class only for systems that do not have specific functions

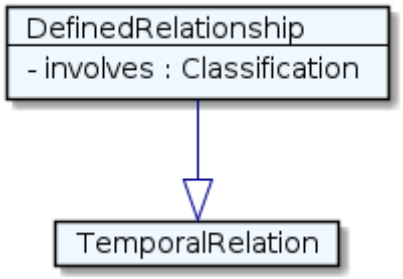
TemporalComposition



Element	Description
Type	Class

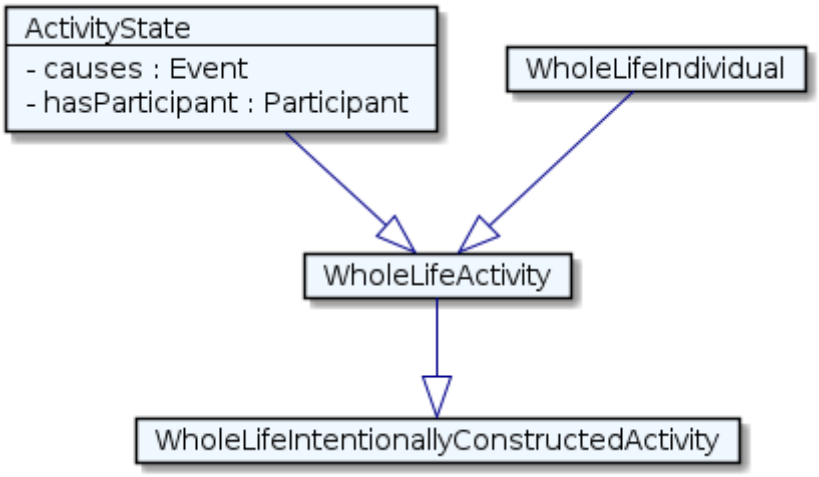
Element	Description
Name	TemporalComposition
IRI	http://ontology.asam.net/ontologies/Core#TemporalComposition
Subclass of	Composition
Comments	DEF: A Composition where the part is the entire whole spatially, but part of the whole temporally.
EXAMPLES: not applicable.	USAGE: This class will generally not be used directly in the OpenX domain.

TemporalRelation



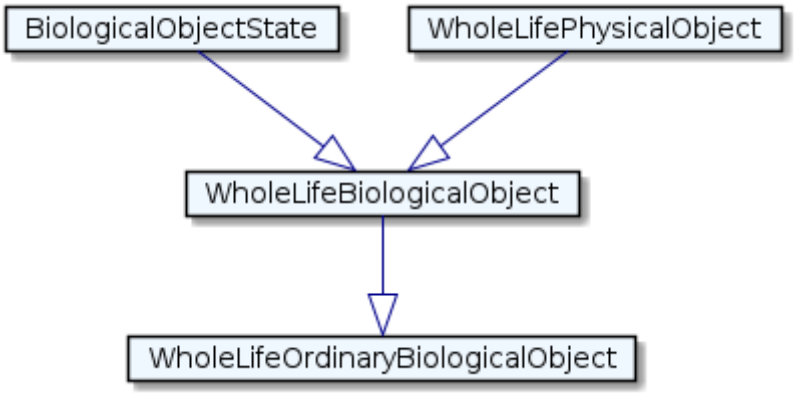
Element	Description
Type	Class
Name	TemporalRelation
IRI	http://ontology.asam.net/ontologies/Core#TemporalRelation
Subclass of	DefinedRelationship
Comments	DEF: A DefinedRelationship that describes a temporal relationship between two things, usually between events. Basis for the object properties occursBefore, occursAfter, and similar.
EXAMPLES: not applicable.	USAGE: This class will generally not be used directly in the OpenX domain.

WholeLifeActivity



Element	Description
Type	Class
Name	WholeLifeActivity
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeActivity
Subclass of	ActivityState
Subclass of	WholeLifeIndividual
Comments	DEF: An ActivityState that represents the whole life of the activity.
EXAMPLES: the entire activity of overtaking another vehicle.	USAGE: Use this class for an activity that is its temporal whole.

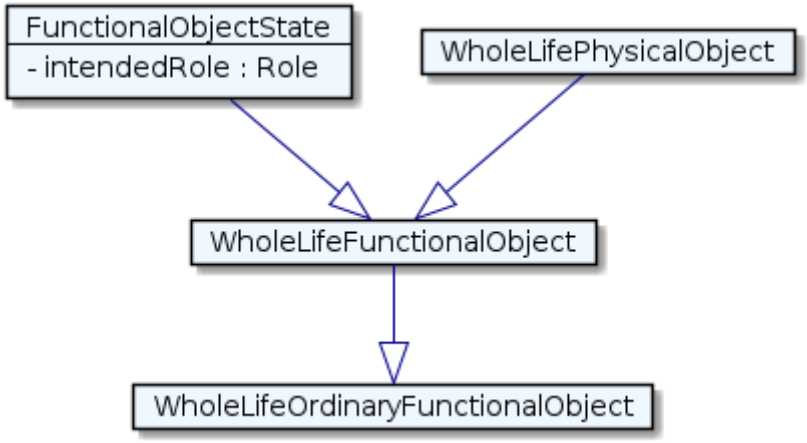
WholeLifeBiologicalObject



Element	Description
Type	Class
Name	WholeLifeBiologicalObject
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeBiologicalObject
Subclass of	BiologicalObjectState

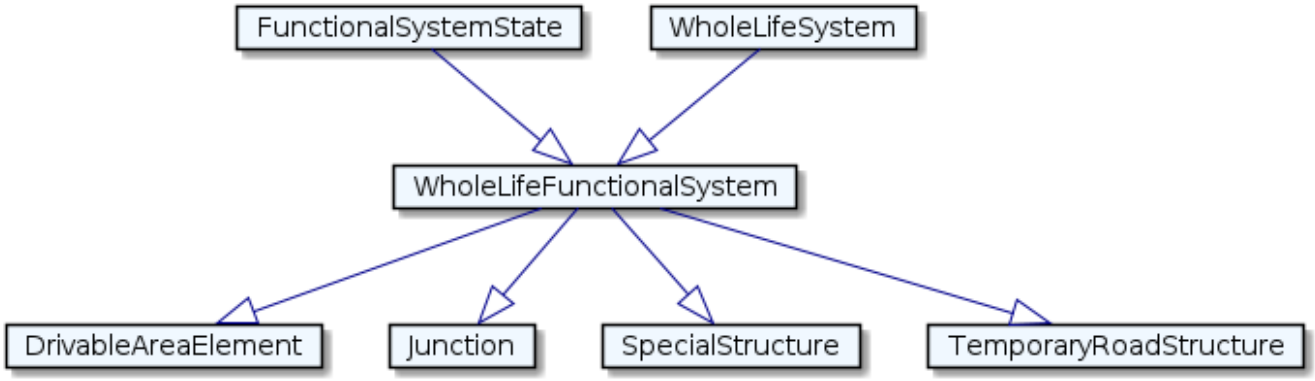
Element	Description
Subclass of	WholeLifePhysicalObject
Comments	DEF: A BiologicalObjectState that represents the whole life of the biological object.
EXAMPLES: a person from their birth to their death.	USAGE: Use this class for a biological object that is its temporal whole. Note that usually it is preferable to use the subclass WholeLifeOrdinaryBiologicalObject.

WholeLifeFunctionalObject



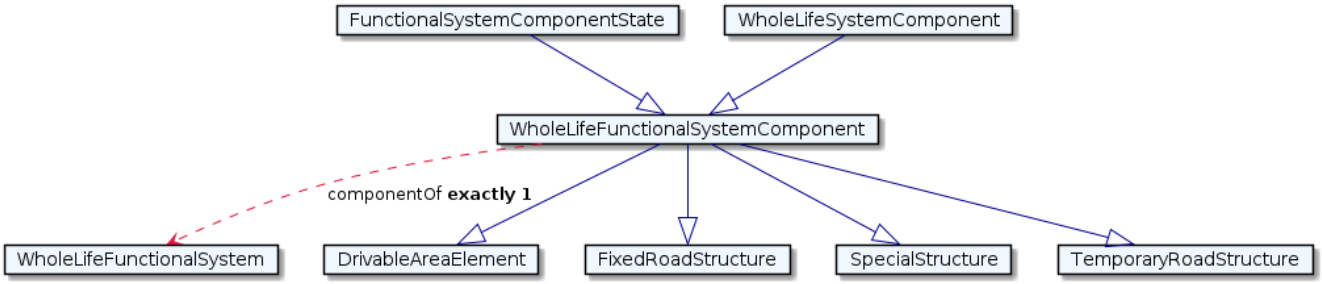
Element	Description
Type	Class
Name	WholeLifeFunctionalObject
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeFunctionalObject
Subclass of	FunctionalObjectState
Subclass of	WholeLifePhysicalObject
Comments	DEF: A FunctionalObjectState that represents the whole life of the functional object.
EXAMPLES:	USAGE: Use this class for a functional object that is its temporal whole. Note that usually it is preferable to use the subclass WholeLifeOrdinaryFunctionalObject.

WholeLifeFunctionalSystem



Element	Description
Type	Class
Name	WholeLifeFunctionalSystem
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeFunctionalSystem
Subclass of	FunctionalSystemState
Subclass of	WholeLifeSystem
Comments	DEF: A FunctionalSystemState that represents the whole life of the functional system.
EXAMPLES: A vehicle from when it is manufactured to when it is destroyed.	USAGE: Use this class for describing individual concrete (actual, materialized) systems that cease to exist when all of their parts are removed. Often combined with WholeLifeOrdinaryBiologicalObject or WholeLifeOrdinaryFunctionalObject

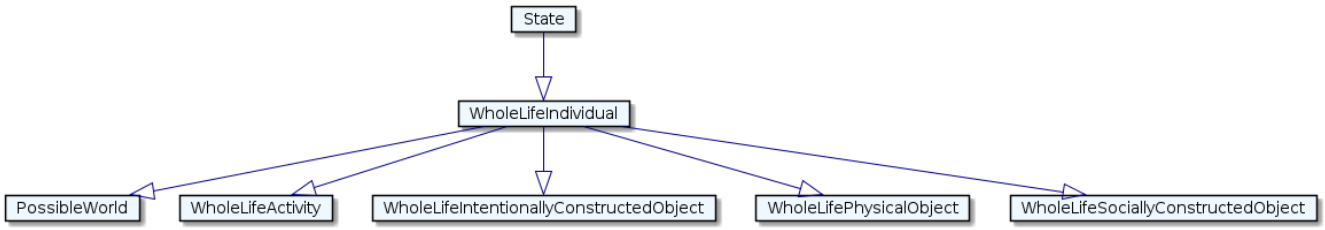
WholeLifeFunctionalSystemComponent



Element	Description
Type	Class
Name	WholeLifeFunctionalSystemComponent
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeFunctionalSystemComponent
Subclass of	FunctionalSystemComponentState
Subclass of	WholeLifeSystemComponent

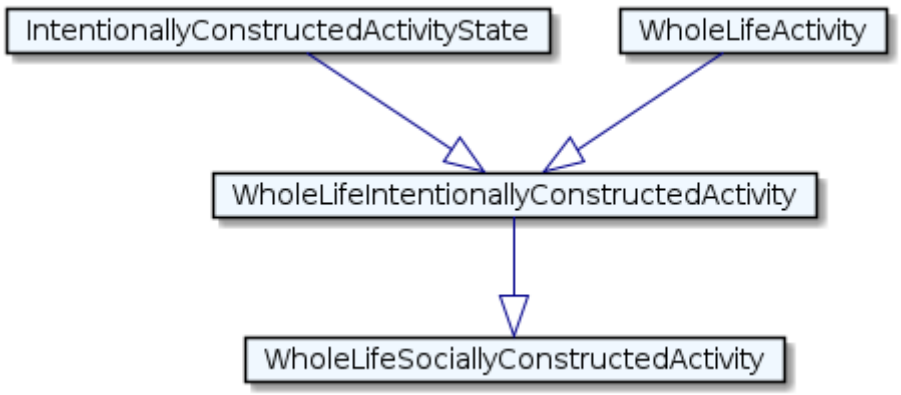
Element	Description
Restriction	componentOf **exactly 1** WholeLifeFunctionalSystem
Comments	DEF: A FunctionalSystemComponentState that represents the whole life of the functional system component.
EXAMPLES: The component of a junction that is the a traffic light, which functions as a signal at a junction (not the individual traffic lights with their serial numbers and dates of production, but the traffic light as a functional component).	USAGE: Use this class to specify the whole life of a component of a functional system, which could be temporally divided into FunctionalSystemComponentStates for each of the InstalledObjects that acted as the component over the lifetime of the functional system.

WholeLifeIndividual



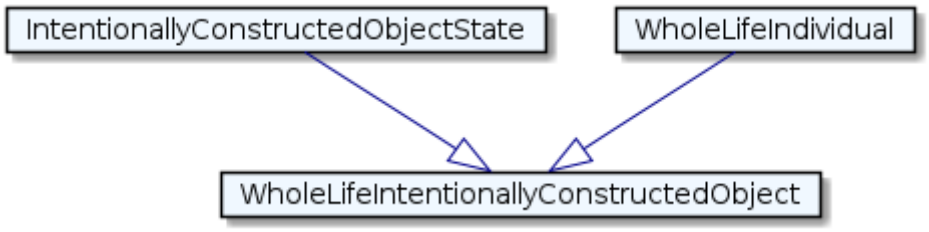
Element	Description
Type	Class
Name	WholeLifeIndividual
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeIndividual
Subclass of	State
Comments	DEF: A State that is not a proper temporalPartOf any other individual of the same kind.
EXAMPLES:	USAGE: Use this class in combination with others to designate that a particular spatio-temporal extent is "its whole life"

WholeLifeIntentionallyConstructedActivity



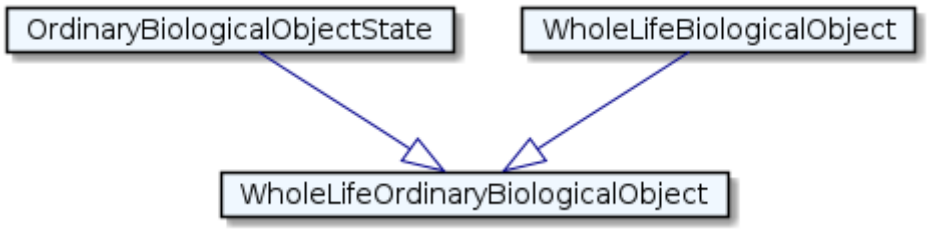
Element	Description
Type	Class
Name	WholeLifeIntentionallyConstructedActivity
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeIntentionallyConstructedActivity
Subclass of	IntentionallyConstructedActivityState
Subclass of	WholeLifeActivity
Comments	DEF: A WholeLifeIntentionallyConstructedObject that is also a WholeLifeActivity.
EXAMPLES:	USAGE:

WholeLifeIntentionallyConstructedObject



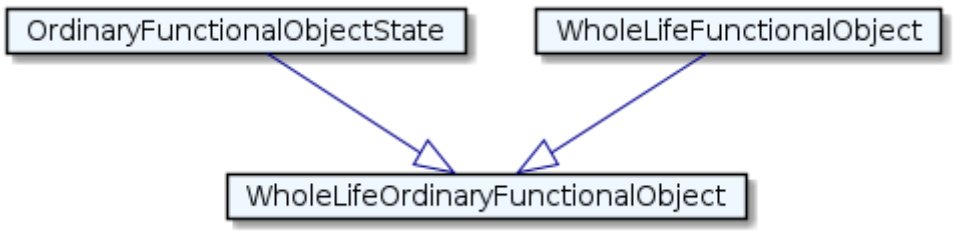
Element	Description
Type	Class
Name	WholeLifeIntentionallyConstructedObject
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeIntentionallyConstructedObject
Subclass of	IntentionallyConstructedObjectState
Subclass of	WholeLifeIndividual
Comments	DEF: An IntentionallyConstructedObjectState that represents the whole life of the intentionally constructed object.
EXAMPLES:	USAGE: Use this class for an intentionally constructed object that is its temporal whole. Note that usually it is preferable to use one of the subclasses.

WholeLifeOrdinaryBiologicalObject



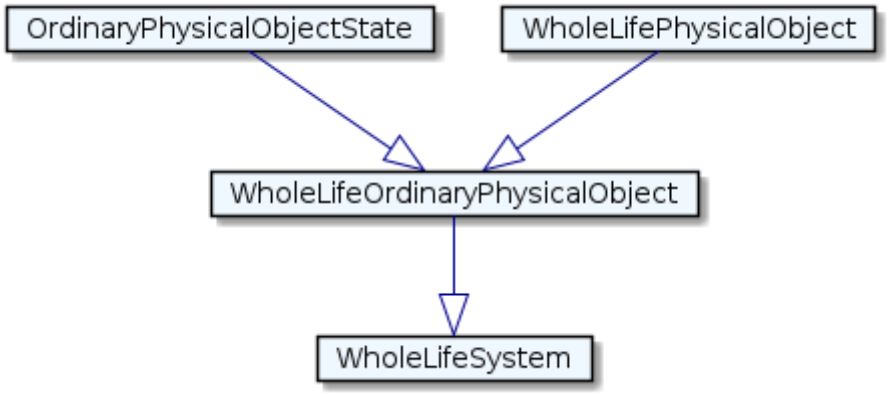
Element	Description
Type	Class
Name	WholeLifeOrdinaryBiologicalObject
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeOrdinaryBiologicalObject
Subclass of	OrdinaryBiologicalObjectState
Subclass of	WholeLifeBiologicalObject
Comments	DEF: An OrdinaryBiologicalObjectState that represents the whole life of the ordinary biological object.
EXAMPLES: a particular person from the instant that person was born to the instant that the person dies	USAGE: Use this class for describing individual living things that cease to exist when all of their parts are removed.

WholeLifeOrdinaryFunctionalObject



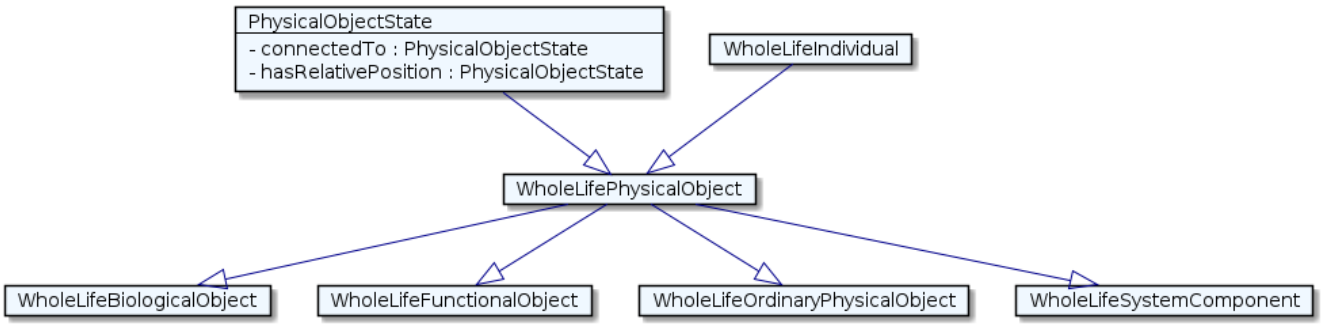
Element	Description
Type	Class
Name	WholeLifeOrdinaryFunctionalObject
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeOrdinaryFunctionalObject
Subclass of	OrdinaryFunctionalObjectState
Subclass of	WholeLifeFunctionalObject
Comments	DEF: An OrdinaryFunctionalObjectState that represents the whole life of the ordinary functional object.
EXAMPLES: a particular car (or traffic sign, road intersection, etc.) from the instant it is manufactured to the instant it is disassembled or otherwise ceases to be a car	USAGE: Use this class for describing individual manufactured things that were constructed for some purpose and that cease to exist when all of their parts are removed

WholeLifeOrdinaryPhysicalObject



Element	Description
Type	Class
Name	WholeLifeOrdinaryPhysicalObject
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeOrdinaryPhysicalObject
Subclass of	OrdinaryPhysicalObjectState
Subclass of	WholeLifePhysicalObject
Comments	DEF: A OrdinaryPhysicalObjectState that represents the whole life of the ordinary physical object.
EXAMPLES:	USAGE: Use this class for an ordinary physical object that is its temporal whole.

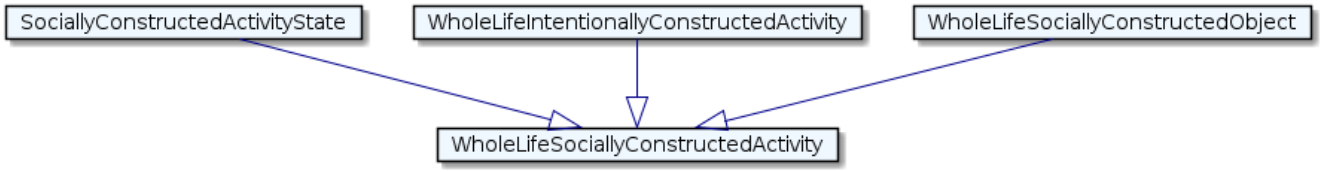
WholeLifePhysicalObject



Element	Description
Type	Class
Name	WholeLifePhysicalObject
IRI	http://ontology.asam.net/ontologies/Core#WholeLifePhysicalObject
Subclass of	PhysicalObjectState
Subclass of	WholeLifeIndividual
Comments	DEF: A PhysicalObjectState that represents the whole life of the physical object.

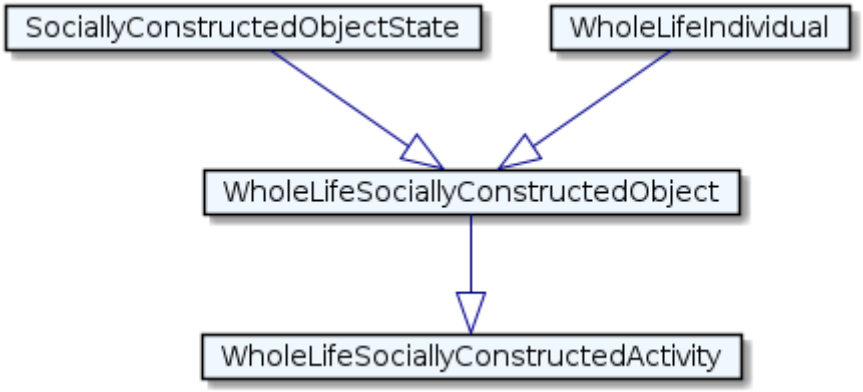
Element	Description
EXAMPLES:	USAGE: Use this class for a physical object that is its temporal whole. Note that it is generally preferable to use one of the subclasses.

WholeLifeSociallyConstructedActivity



Element	Description
Type	Class
Name	WholeLifeSociallyConstructedActivity
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeSociallyConstructedActivity
Subclass of	SociallyConstructedActivityState
Subclass of	WholeLifeIntentionallyConstructedActivity
Subclass of	WholeLifeSociallyConstructedObject
Comments	DEF: A WholeLifeSociallyConstructedObject that is also a WholeLifeActivity.
EXAMPLES:	USAGE: Use this class for an socially constructed activity that is its temporal whole.

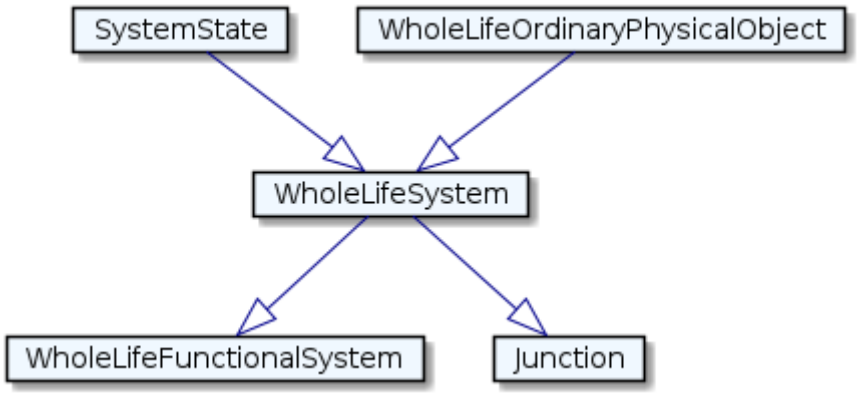
WholeLifeSociallyConstructedObject



Element	Description
Type	Class
Name	WholeLifeSociallyConstructedObject
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeSociallyConstructedObject

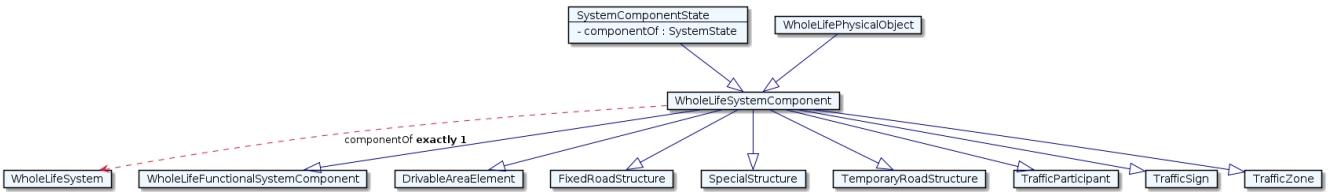
Element	Description
Subclass of	SociallyConstructedObjectState
Subclass of	WholeLifeIndividual
Comments	DEF: A SociallyConstructedObjectState that represents the whole life of the socially constructed object.
EXAMPLES:	USAGE: Use this class for an socially constructed object that is its temporal whole.

WholeLifeSystem



Element	Description
Type	Class
Name	WholeLifeSystem
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeSystem
Subclass of	SystemState
Subclass of	WholeLifeOrdinaryPhysicalObject
Comments	DEF: An OrdinaryPhysicalObject that is an organized or connected group of PhysicalObjects that are SystemComponents and each have a role in how the overall system functions.
EXAMPLES: The entire life of a hurricane from when it was formed to when it ceases to exist.	USAGE: Use this class for a system that is its temporal whole. Note that usually it is preferable to use the subclass WholeLifeFunctionalSystem for systems that are intentionally constructed for some purpose.

WholeLifeSystemComponent



Element	Description
Type	Class
Name	WholeLifeSystemComponent
IRI	http://ontology.asam.net/ontologies/Core#WholeLifeSystemComponent
Subclass of	SystemComponentState
Subclass of	WholeLifePhysicalObject
Restriction	componentOf **exactly 1** WholeLifeSystem
Comments	DEF: A SystemComponentState that represents the whole life of the system component.
EXAMPLES: the eye of a hurricane.	USAGE: Use this class to specify the whole life of a component of a system that is not functional.

Properties

aggregatedInto

Element	Description
Type	ObjectProperty
Name	aggregatedInto
IRI	http://ontology.asam.net/ontologies/Core#aggregatedInto
Has domain	SpatioTemporalExtent
Has range	SpatioTemporalExtent
Characteristic	Asymmetric
Comments	DEF: A relationship type where a SpatioTemporalExtent may be aggregated into one or more others. This object property has the same meaning as the class Aggregation, but a different representation.

appliesTo

Element	Description
Type	ObjectProperty
Name	appliesTo

Element	Description
IRI	http://ontology.asam.net/ontologies/Core#appliesTo
Comments	DEF: This relation is used to describe that a specification or regularity applies to a particular object. For example, this relation can be used to describe which lanes a speed limit sign applies to.

approximatelyEqualTo

Element	Description
Type	ObjectProperty
Name	approximatelyEqualTo
IRI	http://ontology.asam.net/ontologies/Core#approximatelyEqualTo
Subproperty of	hasQuantityRelation
Has domain	PhysicalQuantity
Has range	PhysicalQuantity
Characteristic	Symmetric
Comments	DEF: A hasQuantityRelation relationship type, where the value for the second quantity is within the range of the first quantity. The deviation between the values is no greater than +/- 10% of the first value.

beginningOf

Element	Description
Type	ObjectProperty
Name	beginningOf
IRI	http://ontology.asam.net/ontologies/Core#beginningOf
Subproperty of	temporalPartOf
Has domain	Event
Inverse	hasBeginning
Comments	DEF: A temporalPartOf relationship type where a SpatioTemporalExtent has exactly one event that is its beginning.

behind

Element	Description
Type	ObjectProperty
Name	behind
IRI	http://ontology.asam.net/ontologies/Core#behind
Subproperty of	hasRelativePosition
Inverse	inFrontOf
Characteristic	Asymmetric
Comments	DEF: A hasRelativePosition relationship type where the first PhysicalObject is behind the second PhysicalObject.

behindConnectedTo

Element	Description
Type	ObjectProperty
Name	behindConnectedTo
IRI	http://ontology.asam.net/ontologies/Core#behindConnectedTo
Subproperty of	longitudinalConnectedTo
Comments	DEF: A longitudinalConnectedTo relationship type where two PhysicalObjects are connected and the first PhysicalObject is behind the second PhysicalObject.

behindLeftOf

Element	Description
Type	ObjectProperty
Name	behindLeftOf
IRI	http://ontology.asam.net/ontologies/Core#behindLeftOf
Subproperty of	hasRelativePosition
Inverse	frontRightOf
Characteristic	Asymmetric
Comments	DEF: A hasRelativePosition relationship type where the first PhysicalObject is behind and to the left of the second PhysicalObject.

behindRightOf

Element	Description
Type	ObjectProperty
Name	behindRightOf
IRI	http://ontology.asam.net/ontologies/Core#behindRightOf
Subproperty of	hasRelativePosition
Inverse	frontLeftOf
Characteristic	Asymmetric
Comments	DEF: A hasRelativePosition relationship type where the first PhysicalObject is behind and to the right of the second PhysicalObject.

causes

Element	Description
Type	ObjectProperty
Name	causes
IRI	http://ontology.asam.net/ontologies/Core#causes
Has domain	ActivityState
Has range	ActivityState
Comments	DEF: A relationship type where each activity is the cause of one or more events.

componentOf

Element	Description
Type	ObjectProperty
Name	componentOf
IRI	http://ontology.asam.net/ontologies/Core#componentOf
Subproperty of	partOf
Has domain	SystemComponentState
Has range	SystemComponentState
Inverse	hasComponent
Characteristic	Functional
Comments	DEF: A partOf relationship type where each SystemComponent is partOf exactly one System.

connectedTo

Element	Description
Type	ObjectProperty
Name	connectedTo
IRI	http://ontology.asam.net/ontologies/Core#connectedTo
Has domain	PhysicalObjectState
Has range	PhysicalObjectState
Characteristic	Symmetric
Comments	DEF: A relationship type where two physical object have a spatial connection and touch each other. Spatial connections create bridges for the transfer of energy or other things between the objects. This object property has the same meaning as the class SpatialConnection, but a different representation.

defines

Element	Description
Type	ObjectProperty
Name	defines
IRI	http://ontology.asam.net/ontologies/Core#defines
Has domain	PhysicalQuantity
Has range	PhysicalQuantity
Characteristic	Transitive
Comments	DEF: A relationship type that relates two numeric parameters. It expresses that one parameter value is determined by the other parameter value.

endingOf

Element	Description
Type	ObjectProperty
Name	endingOf
IRI	http://ontology.asam.net/ontologies/Core#endingOf
Subproperty of	temporalPartOf
Has domain	Event
Inverse	hasEnding

Element	Description
Comments	DEF: A temporalPartOf relationship type where a SpatioTemporalExtent has exactly one event that is its ending.

frontConnectedTo

Element	Description
Type	ObjectProperty
Name	frontConnectedTo
IRI	http://ontology.asam.net/ontologies/Core#frontConnectedTo
Subproperty of	longitudinalConnectedTo
Comments	DEF: A longitudinalConnectedTo relationship type where two PhysicalObjects are connected and the first PhysicalObject is in front of the second PhysicalObject.

frontLeftOf

Element	Description
Type	ObjectProperty
Name	frontLeftOf
IRI	http://ontology.asam.net/ontologies/Core#frontLeftOf
Subproperty of	hasRelativePosition
Characteristic	Asymmetric
Comments	DEF: A hasRelativePosition relationship type where the first PhysicalObject is in front and to the left of the second PhysicalObject.

frontRightOf

Element	Description
Type	ObjectProperty
Name	frontRightOf
IRI	http://ontology.asam.net/ontologies/Core#frontRightOf
Subproperty of	hasRelativePosition
Characteristic	Asymmetric

Element	Description
Comments	DEF: A hasRelativePosition relationship type where the first PhysicalObject is in front and to the right of the second PhysicalObject.

hasAngle

Element	Description
Type	ObjectProperty
Name	hasAngle
IRI	http://ontology.asam.net/ontologies/Core#hasAngle
Subproperty of	hasQuantity
Comments	DEF: A hasQuantity relationship type that specifies an angle quantity of something.

hasBeginning

Element	Description
Type	ObjectProperty
Name	hasBeginning
IRI	http://ontology.asam.net/ontologies/Core#hasBeginning
Subproperty of	hasTemporalPart
Comments	DEF: Inverse relationship of beginningOf

hasColor

Element	Description
Type	ObjectProperty
Name	hasColor
IRI	http://ontology.asam.net/ontologies/Core#hasColor
Subproperty of	hasProperty
Comments	DEF: A hasPropertyrelationship type that specifies the color of something.

hasComponent

Element	Description
Type	ObjectProperty

Element	Description
Name	hasComponent
IRI	http://ontology.asam.net/ontologies/Core#hasComponent
Subproperty of	hasPart
Comments	DEF: Inverse relationship of componentOf

hasDirection

Element	Description
Type	ObjectProperty
Name	hasDirection
IRI	http://ontology.asam.net/ontologies/Core#hasDirection
Subproperty of	hasQuantity
Comments	DEF: A hasQuantity relationship type that specifies a direction quantity of something.

hasDistance

Element	Description
Type	ObjectProperty
Name	hasDistance
IRI	http://ontology.asam.net/ontologies/Core#hasDistance
Subproperty of	hasLength
Comments	DEF: A hasQuantity relationship type that specifies a distance quantity of something.

hasEnding

Element	Description
Type	ObjectProperty
Name	hasEnding
IRI	http://ontology.asam.net/ontologies/Core#hasEnding
Subproperty of	hasTemporalPart
Comments	DEF: Inverse relationship of endingOf

hasGeometry

Element	Description
Type	ObjectProperty
Name	hasGeometry
IRI	http://ontology.asam.net/ontologies/Core#hasGeometry
Subproperty of	hasProperty
Comments	DEF: A hasProperty relationship type that specifies the geometry of something, usually a physical object.

hasHeading

Element	Description
Type	ObjectProperty
Name	hasHeading
IRI	http://ontology.asam.net/ontologies/Core#hasHeading
Subproperty of	hasDirection
Has domain	PhysicalObjectState
Comments	DEF: A hasQuantity relationship type that specifies a direction that a moving object is heading in. This property is required for defining leftOf, rightOf, etc.

hasLength

Element	Description
Type	ObjectProperty
Name	hasLength
IRI	http://ontology.asam.net/ontologies/Core#hasLength
Subproperty of	hasQuantity
Comments	DEF: A hasQuantity relationship type that specifies the length quantity of something.

hasMember

Element	Description
Type	ObjectProperty
Name	hasMember

Element	Description
IRI	http://ontology.asam.net/ontologies/Core#hasMember
Has domain	Set
Inverse	memberOf
Characteristic	Asymmetric
Comments	DEF: A relationship type stating that a Set has a particular thing as a member. A set can have anything of the respective type as a member.

hasObject

Element	Description
Type	ObjectProperty
Name	hasObject
IRI	http://ontology.asam.net/ontologies/Core#hasObject
Subproperty of	hasParticipant
Inverse	objectOf
Comments	DEF: A hasParticipant relationship type that relates some activity to a physical object as object of the activity. The object is a non-actor participant. Inverse relationship of objectOf.

hasPart

Element	Description
Type	ObjectProperty
Name	hasPart
IRI	http://ontology.asam.net/ontologies/Core#hasPart
Has domain	SpatioTemporalExtent
Has range	SpatioTemporalExtent
Inverse	partOf
Characteristic	Asymmetric
Comments	DEF: A relationship type where a SpatioTemporalExtent may consist of one or more others. Inverse relationship of partOf.

hasParticipant

Element	Description
Type	ObjectProperty
Name	hasParticipant
IRI	http://ontology.asam.net/ontologies/Core#hasParticipant
Subproperty of	hasPart
Has domain	ActivityState
Has range	ActivityState
Inverse	participantOf
Comments	DEF: A hasPart relationship type where an ActivityState hasPart one or more Participants.

hasProperty

Element	Description
Type	ObjectProperty
Name	hasProperty
IRI	http://ontology.asam.net/ontologies/Core#hasProperty
Comments	DEF: Relationship type for specifying properties of particular things

hasQuantity

Element	Description
Type	ObjectProperty
Name	hasQuantity
IRI	http://ontology.asam.net/ontologies/Core#hasQuantity
Subproperty of	hasProperty
Comments	DEF: A relationship type for specifying quantities of particular things

hasQuantityRelation

Element	Description
Type	ObjectProperty
Name	hasQuantityRelation
IRI	http://ontology.asam.net/ontologies/Core#hasQuantityRelation

Element	Description
Has domain	PhysicalQuantity
Has range	PhysicalQuantity
Comments	DEF: A relationship type for basic arithmetic relationships between quantities

hasRelationDirection

Element	Description
Type	ObjectProperty
Name	hasRelationDirection
IRI	http://ontology.asam.net/ontologies/Core#hasRelationDirection
Subproperty of	hasDirection
Subproperty of	relationProperty
Has domain	SpatialRelation
Has range	SpatialRelation
Comments	DEF: A hasQuantity relationship type that specifies the direction of a spatial relation.

hasRelativePosition

Element	Description
Type	ObjectProperty
Name	hasRelativePosition
IRI	http://ontology.asam.net/ontologies/Core#hasRelativePosition
Has domain	PhysicalObjectState
Has range	PhysicalObjectState
Comments	DEF: Object properties derived from SpatialRelation

hasRelativeTime

Element	Description
Type	ObjectProperty
Name	hasRelativeTime
IRI	http://ontology.asam.net/ontologies/Core#hasRelativeTime
Has domain	Event
Has range	Event

Element	Description
Comments	DEF: Object properties derived from TemporalRelation

hasSpatialObject

Element	Description
Type	ObjectProperty
Name	hasSpatialObject
IRI	http://ontology.asam.net/ontologies/Core#hasSpatialObject
Subproperty of	relationProperty
Has domain	SpatialRelation
Has range	SpatialRelation
Characteristic	Functional
Characteristic	Inverse Functional
Comments	DEF: A relationProperty designating the object, destination, or "recepient" in a SpatialRelation.

hasSpatialSubject

Element	Description
Type	ObjectProperty
Name	hasSpatialSubject
IRI	http://ontology.asam.net/ontologies/Core#hasSpatialSubject
Subproperty of	relationProperty
Has domain	SpatialRelation
Has range	SpatialRelation
Characteristic	Functional
Characteristic	Inverse Functional
Comments	DEF: A relationProperty designating the subject, origin, or "owner" in a SpatialRelation.

hasSpeed

Element	Description
Type	ObjectProperty
Name	hasSpeed

Element	Description
IRI	http://ontology.asam.net/ontologies/Core#hasSpeed
Subproperty of	hasQuantity
Comments	DEF: A hasQuantity relationship type that specifies speed.

hasSubject

Element	Description
Type	ObjectProperty
Name	hasSubject
IRI	http://ontology.asam.net/ontologies/Core#hasSubject
Subproperty of	hasParticipant
Inverse	subjectOf
Comments	DEF: A hasParticipant relationship type that relates some activity to a physical object as subject of the activity. The subject is an actor participant. Inverse relationship of subjectOf.

hasTemporalPart

Element	Description
Type	ObjectProperty
Name	hasTemporalPart
IRI	http://ontology.asam.net/ontologies/Core#hasTemporalPart
Subproperty of	hasPart
Inverse	temporalPartOf
Comments	DEF: A hasPart relationship type where one spatio-temporal extent has another spatio-temporal extent as a temporal part. This implies that the temporal extent of the part is within the temporal extent of the whole. Inverse relationship of temporalPartOf.

inFrontOf

Element	Description
Type	ObjectProperty
Name	inFrontOf

Element	Description
IRI	http://ontology.asam.net/ontologies/Core#inFrontOf
Subproperty of	hasRelativePosition
Characteristic	Asymmetric
Comments	DEF: A hasRelativePosition relationship type where the first PhysicalObject is in front of the second PhysicalObject.

intendedRole

Element	Description
Type	ObjectProperty
Name	intendedRole
IRI	http://ontology.asam.net/ontologies/Core#intendedRole
Has domain	FunctionalObjectState
Has range	FunctionalObjectState
Comments	DEF: A relationship type where a FunctionalObject has one or more intended role(s).

involves

Element	Description
Type	ObjectProperty
Name	involves
IRI	http://ontology.asam.net/ontologies/Core#involves
Subproperty of	relationProperty
Has domain	DefinedRelationship
Has range	DefinedRelationship
Characteristic	Functional
Characteristic	Inverse Functional
Comments	DEF: A relationProperty that states that the classification of some thing in a role is involved in a relationship.

latitudinalConnectedTo

Element	Description
Type	ObjectProperty

Element	Description
Name	latitudinalConnectedTo
IRI	http://ontology.asam.net/ontologies/Core#latitudinalConnectedTo
Subproperty of	connectedTo
Comments	DEF: A connectedTo relationship type where the connection is in the latitudinal (East-West) direction with reference to the reference coordinate system.

leftConnectedTo

Element	Description
Type	ObjectProperty
Name	leftConnectedTo
IRI	http://ontology.asam.net/ontologies/Core#leftConnectedTo
Subproperty of	latitudinalConnectedTo
Comments	DEF: A latitudinalConnectedTo relationship type where two PhysicalObjects are connected and the first PhysicalObject is to the left of the second PhysicalObject.

leftOf

Element	Description
Type	ObjectProperty
Name	leftOf
IRI	http://ontology.asam.net/ontologies/Core#leftOf
Subproperty of	hasRelativePosition
Inverse	rightOf
Characteristic	Asymmetric
Comments	DEF: A hasRelativePosition relationship type where the first PhysicalObject is to the left of the second PhysicalObject.

locatedOn

Element	Description
Type	ObjectProperty
Name	locatedOn
IRI	http://ontology.asam.net/ontologies/Core#locatedOn

Element	Description
Has domain	PhysicalObjectState
Characteristic	Asymmetric
Comments	DEF: Object property version of RelativeLocation. Note that when using "locatedOn", it is not possible to describe the actual position of the located object on the location object (you need a RelativeLocation for that).

longitudinalConnectedTo

Element	Description
Type	ObjectProperty
Name	longitudinalConnectedTo
IRI	http://ontology.asam.net/ontologies/Core#longitudinalConnectedTo
Subproperty of	connectedTo
Comments	DEF: A connectedTo relationship type where the connection is in the longitudinal (North-South) direction with reference to the reference coordinate system.

memberOf

Element	Description
Type	ObjectProperty
Name	memberOf
IRI	http://ontology.asam.net/ontologies/Core#memberOf
Characteristic	Asymmetric
Comments	DEF: A relationship type stating that a thing is a member of some Set. A set can have anything of the respective type as a member, even other Sets.

objectOf

Element	Description
Type	ObjectProperty
Name	objectOf
IRI	http://ontology.asam.net/ontologies/Core#objectOf
Subproperty of	participantOf

Element	Description
Comments	DEF: A participantOf relationship type that relates some physical object as object to some activity. The object is a non-actor participant.

occursAfter

Element	Description
Type	ObjectProperty
Name	occursAfter
IRI	http://ontology.asam.net/ontologies/Core#occursAfter
Subproperty of	occursAtDifferentTime
Inverse	occursBefore
Comments	DEF: A hasRelativeTime relationship type specifying that the first event (marking the beginning or ending of some activity of physical object) occurs after the second event.

occursAtDifferentTime

Element	Description
Type	ObjectProperty
Name	occursAtDifferentTime
IRI	http://ontology.asam.net/ontologies/Core#occursAtDifferentTime
Subproperty of	hasRelativeTime
Characteristic	Asymmetric
Comments	DEF: A hasRelativeTime relationship type specifying that the first event (marking the beginning or ending of some activity of physical object) occurs at a different time from the second event.

occursAtSameTime

Element	Description
Type	ObjectProperty
Name	occursAtSameTime
IRI	http://ontology.asam.net/ontologies/Core#occursAtSameTime
Subproperty of	hasRelativeTime
Characteristic	Symmetric

Element	Description
Comments	DEF: A hasRelativeTime relationship type specifying that the first event (marking the beginning or ending of some activity of physical object) occurs at the same this as the second event. Note that when two events occur at the same time, the events are both parts of the same PointInTime

occursBefore

Element	Description
Type	ObjectProperty
Name	occursBefore
IRI	http://ontology.asam.net/ontologies/Core#occursBefore
Subproperty of	occursAtDifferentTime
Comments	DEF: A hasRelativeTime relationship type specifying that the first event (marking the beginning or ending of some activity of physical object) occurs before the second event

part

Element	Description
Type	ObjectProperty
Name	part
IRI	http://ontology.asam.net/ontologies/Core#part
Subproperty of	relationProperty
Has domain	Aggregation
Has range	Aggregation
Characteristic	Functional
Characteristic	Inverse Functional
Comments	DEF: A relationProperty that states that each Aggregation has exactly one spatioTemporalExtent that is the part in the Aggregation.

partOf

Element	Description
Type	ObjectProperty
Name	partOf
IRI	http://ontology.asam.net/ontologies/Core#partOf

Element	Description
Subproperty of	aggregatedInto
Comments	DEF: An aggregatedInto relationship type where a SpatioTemporalExtent may be part of another and the whole has emergent properties and is more than just the sum of its parts. This object property has the same meaning as the class Composition, but a different representation.

partOfPossibleWorld

Element	Description
Type	ObjectProperty
Name	partOfPossibleWorld
IRI	http://ontology.asam.net/ontologies/Core#partOfPossibleWorld
Subproperty of	partOf
Comments	DEF: A partOf relationship type where a SpatioTemporalExtent may be partOf one or more PossibleWorld.

participantOf

Element	Description
Type	ObjectProperty
Name	participantOf
IRI	http://ontology.asam.net/ontologies/Core#participantOf
Subproperty of	partOf
Has domain	Participant
Has range	Participant
Comments	DEF: A relationship stating the participation of a physical object in an activity.

quantityEqualTo

Element	Description
Type	ObjectProperty
Name	quantityEqualTo
IRI	http://ontology.asam.net/ontologies/Core#quantityEqualTo
Subproperty of	hasQuantityRelation

Element	Description
Has domain	PhysicalQuantity
Has range	PhysicalQuantity
Characteristic	Symmetric
Comments	DEF: A hasQuantityRelation relationship type, where the value for the second quantity is equal to the value of the first quantity.

quantityGreaterThan

Element	Description
Type	ObjectProperty
Name	quantityGreaterThan
IRI	http://ontology.asam.net/ontologies/Core#quantityGreaterThan
Subproperty of	hasQuantityRelation
Has domain	PhysicalQuantity
Has range	PhysicalQuantity
Inverse	quantityLessThanOrEqualTo
Characteristic	Transitive
Comments	DEF: A hasQuantityRelation relationship type, where the value for the second quantity is strictly greater than the value of the first quantity.

quantityGreaterThanOrEqualTo

Element	Description
Type	ObjectProperty
Name	quantityGreaterThanOrEqualTo
IRI	http://ontology.asam.net/ontologies/Core#quantityGreaterThanOrEqualTo
Subproperty of	hasQuantityRelation
Has domain	PhysicalQuantity
Has range	PhysicalQuantity
Inverse	quantityLessThan
Characteristic	Transitive
Comments	DEF: A hasQuantityRelation relationship type, where the value for the second quantity is greater than or equal to the value of the first quantity.

quantityLessThan

Element	Description
Type	ObjectProperty
Name	quantityLessThan
IRI	http://ontology.asam.net/ontologies/Core#quantityLessThan
Subproperty of	hasQuantityRelation
Has domain	PhysicalQuantity
Has range	PhysicalQuantity
Characteristic	Transitive
Comments	DEF: A hasQuantityRelation relationship type, where the value for the second quantity is strictly less than the value of the first quantity.

quantityLessThanOrEqualTo

Element	Description
Type	ObjectProperty
Name	quantityLessThanOrEqualTo
IRI	http://ontology.asam.net/ontologies/Core#quantityLessThanOrEqualTo
Subproperty of	hasQuantityRelation
Has domain	PhysicalQuantity
Has range	PhysicalQuantity
Characteristic	Transitive
Comments	DEF: A hasQuantityRelation relationship type, where the value for the second quantity is less than or equal to the value of the first quantity.

quantityNotEqualTo

Element	Description
Type	ObjectProperty
Name	quantityNotEqualTo
IRI	http://ontology.asam.net/ontologies/Core#quantityNotEqualTo
Subproperty of	hasQuantityRelation
Has domain	PhysicalQuantity
Has range	PhysicalQuantity

Element	Description
Characteristic	Symmetric
Comments	DEF: A hasQuantityRelation relationship type, where the value for the second quantity is not equal to the value of the first quantity.

relationProperty

Element	Description
Type	ObjectProperty
Name	relationProperty
IRI	http://ontology.asam.net/ontologies/Core#relationProperty
Has domain	Relationship
Comments	DEF: Relationship types that are generally used only to define other properties, for example, using SWRL.

rightConnectedTo

Element	Description
Type	ObjectProperty
Name	rightConnectedTo
IRI	http://ontology.asam.net/ontologies/Core#rightConnectedTo
Subproperty of	latitudinalConnectedTo
Comments	DEF: A latitudinalConnectedTo relationship type where two PhysicalObjects are connected and the first PhysicalObject is to the right of the second PhysicalObject.

rightOf

Element	Description
Type	ObjectProperty
Name	rightOf
IRI	http://ontology.asam.net/ontologies/Core#rightOf
Subproperty of	hasRelativePosition
Characteristic	Asymmetric
Comments	DEF: A hasRelativePosition relationship type where the first PhysicalObject is to the right of the second PhysicalObject.

rolePlayedBy

Element	Description
Type	ObjectProperty
Name	rolePlayedBy
IRI	http://ontology.asam.net/ontologies/Core#rolePlayedBy
Subproperty of	relationProperty
Has domain	Role
Has range	Role
Comments	DEF: A relationProperty that states that a Role is the role of some Participant.

roleUsedIn

Element	Description
Type	ObjectProperty
Name	roleUsedIn
IRI	http://ontology.asam.net/ontologies/Core#roleUsedIn
Subproperty of	relationProperty
Has domain	Role
Has range	Role
Comments	DEF: A relationProperty that states that a Role is used in an Activity.

subjectOf

Element	Description
Type	ObjectProperty
Name	subjectOf
IRI	http://ontology.asam.net/ontologies/Core#subjectOf
Subproperty of	participantOf
Comments	DEF: A participantOf relationship type that relates some physical object as subject to some activity. The subject is an actor participant.

temporalPartOf

Element	Description
Type	ObjectProperty
Name	temporalPartOf
IRI	http://ontology.asam.net/ontologies/Core#temporalPartOf
Subproperty of	partOf
Comments	DEF: A partOf relationship type where a SpatioTemporalExtent may be a temporal part of one or more other SpatioTemporalExtent. This object property has the same meaning as the class TemporalComposition, but a different representation.

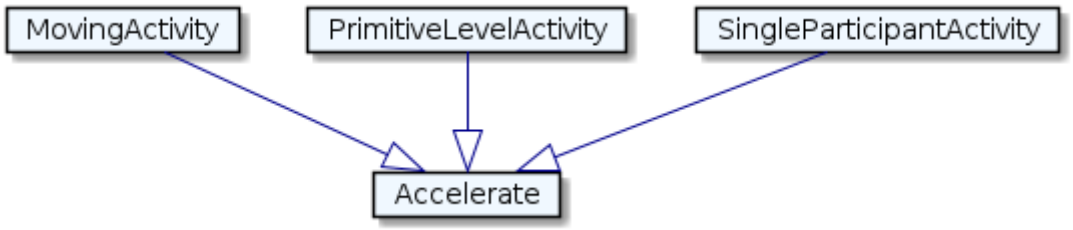
whole

Element	Description
Type	ObjectProperty
Name	whole
IRI	http://ontology.asam.net/ontologies/Core#whole
Subproperty of	relationProperty
Has domain	Aggregation
Has range	Aggregation
Characteristic	Functional
Characteristic	Inverse Functional
Comments	DEF: A relationProperty that states that each Aggregation has exactly one spatioTemporalExtent that is the whole in the Aggregation.

Domain

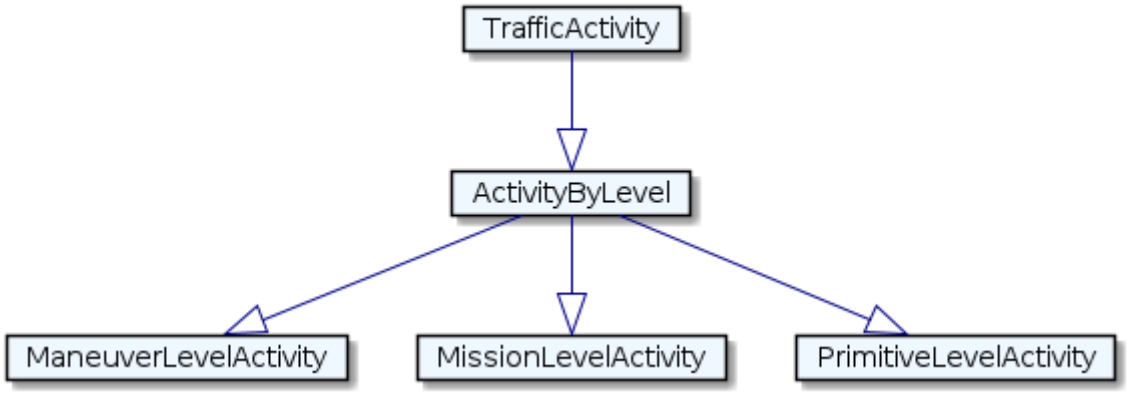
Classes

Accelerate



Element	Description
Type	Class
Name	Accelerate
IRI	http://ontology.asam.net/ontologies/Domain#Accelerate
Subclass of	MovingActivity
Subclass of	PrimitiveLevelActivity
Subclass of	SingleParticipantActivity
Comments	DEF: A MovingActivity with one traffic participant during which the speed of the traffic participant increases continuously.

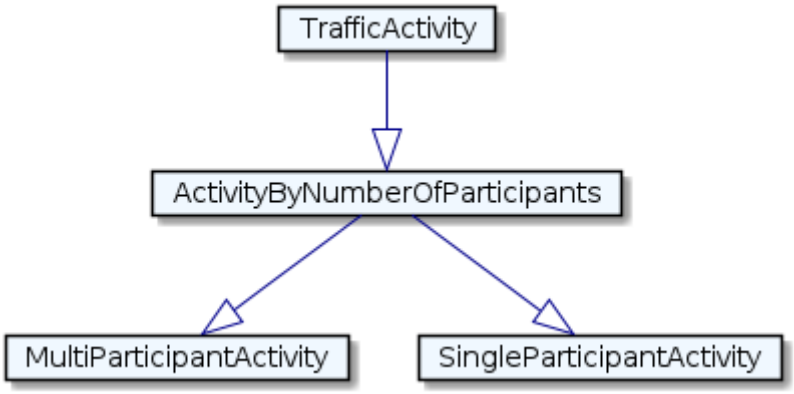
ActivityByLevel



Element	Description
Type	Class
Name	ActivityByLevel
IRI	http://ontology.asam.net/ontologies/Domain#ActivityByLevel

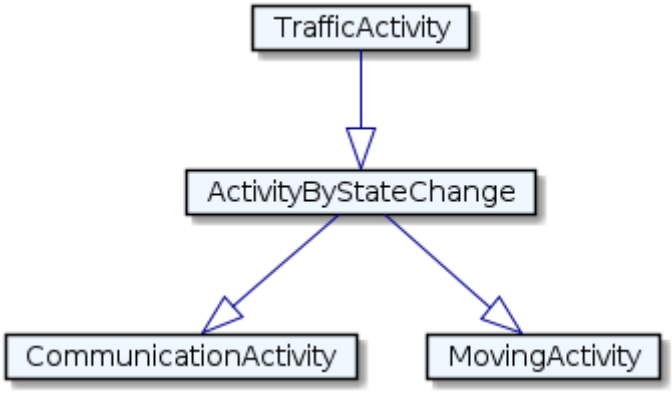
Element	Description
Subclass of	TrafficActivity
Comments	DEF: A set of activities categorized according to the complexity of the action ranging from primitive to mission level.

ActivityByNumberOfParticipants



Element	Description
Type	Class
Name	ActivityByNumberOfParticipants
IRI	http://ontology.asam.net/ontologies/Domain#ActivityByNumberOfParticipants
Subclass of	TrafficActivity
Comments	DEF: A set of activities categorized according to the number of traffic participants involved.

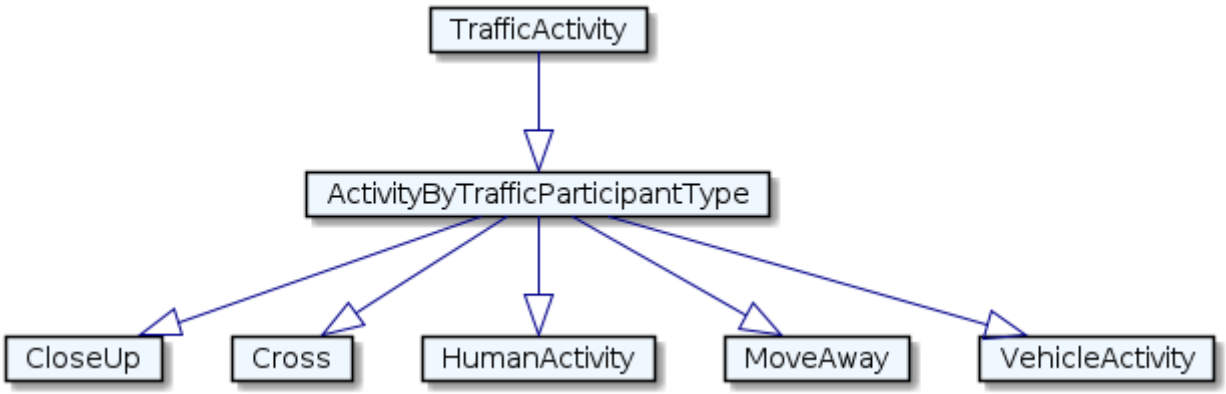
ActivityByStateChange



Element	Description
Type	Class
Name	ActivityByStateChange

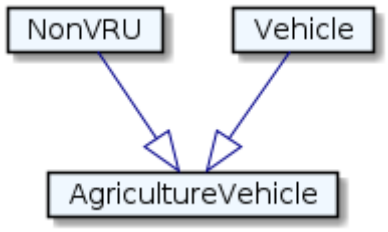
Element	Description
IRI	http://ontology.asam.net/ontologies/Domain#ActivityByStateChange
Subclass of	TrafficActivity
Comments	DEF: A set of activities characterized by the participants moving or communicating.

ActivityByTrafficParticipantType



Element	Description
Type	Class
Name	ActivityByTrafficParticipantType
IRI	http://ontology.asam.net/ontologies/Domain#ActivityByTrafficParticipantType
Subclass of	TrafficActivity
Comments	DEF: A set of activities categorized according to the type of traffic participants.

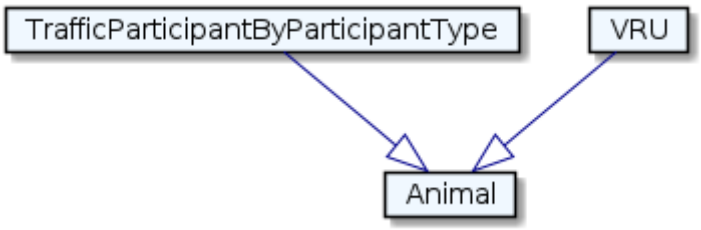
AgricultureVehicle



Element	Description
Type	Class
Name	AgricultureVehicle
IRI	http://ontology.asam.net/ontologies/Domain#AgricultureVehicle
Subclass of	NonVRU

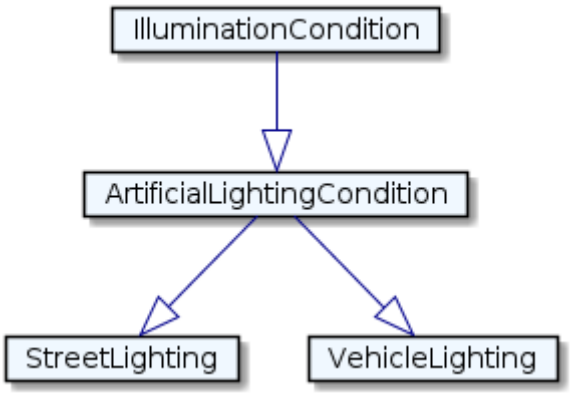
Element	Description
Subclass of	Vehicle
Comments	DEF: A vehicle that is specifically constructed for and used in farming.

Animal



Element	Description
Type	Class
Name	Animal
IRI	http://ontology.asam.net/ontologies/Domain#Animal
Subclass of	TrafficParticipantByParticipantType
Subclass of	VRU
Comments	DEF: A TrafficParticipant that is a non-human biological object.

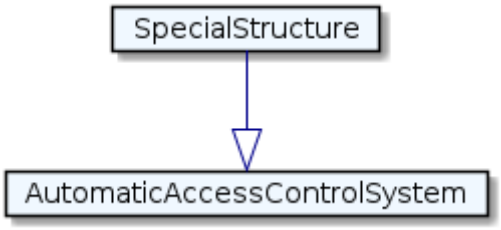
ArtificialLightingCondition



Element	Description
Type	Class
Name	ArtificialLightingCondition
IRI	http://ontology.asam.net/ontologies/Domain#ArtificialLightingCondition
Subclass of	IlluminationCondition

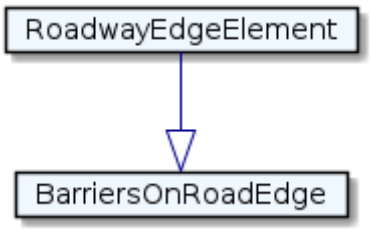
Element	Description
Comments	DEF: An IlluminationCondition characterized by non-natural light from manufactured light sources, such as candles and electric lamps.

AutomaticAccessControlSystem



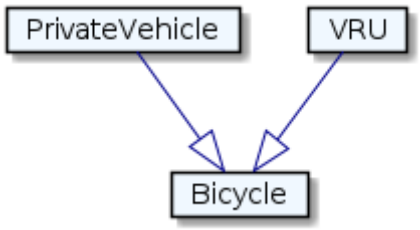
Element	Description
Type	Class
Name	AutomaticAccessControlSystem
IRI	http://ontology.asam.net/ontologies/Domain#AutomaticAccessControlSystem
Subclass of	SpecialStructure
Comments	DEF: A SpecialStructure that provides detection and audit to limit who can go where. They can be combined with assured physical barriers to provide delay into a secure site or can be used with demarcation barriers, meaning half-height gates, to provide only detection

BarriersOnRoadEdge



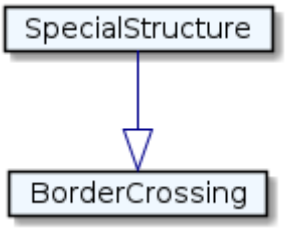
Element	Description
Type	Class
Name	BarriersOnRoadEdge
IRI	http://ontology.asam.net/ontologies/Domain#BarriersOnRoadEdge
Subclass of	RoadwayEdgeElement
Comments	DEF: A RoadwayEdgeElement that forms a barrier along the edge of the road.

Bicycle



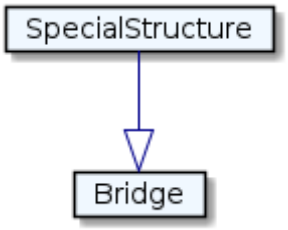
Element	Description
Type	Class
Name	Bicycle
IRI	http://ontology.asam.net/ontologies/Domain#Bicycle
Subclass of	PrivateVehicle
Subclass of	VRU
Comments	DEF: A human-powered or motor-powered, pedal-driven, single-track Vehicle that has two wheels attached to a frame, one behind the other.

BorderCrossing



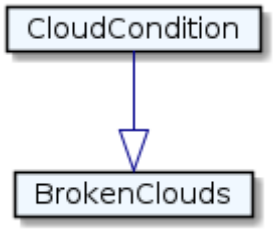
Element	Description
Type	Class
Name	BorderCrossing
IRI	http://ontology.asam.net/ontologies/Domain#BorderCrossing
Subclass of	SpecialStructure
Comments	DEF: A SpecialStructure that is located at the border between states and that supports monitoring and regulating the movement of people, animals, and goods across the border.

Bridge



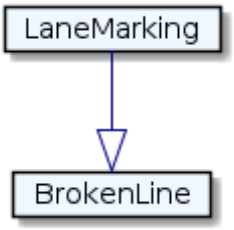
Element	Description
Type	Class
Name	Bridge
IRI	http://ontology.asam.net/ontologies/Domain#Bridge
Subclass of	SpecialStructure
Comments	DEF: A SpecialStructure built to span a physical obstacle, such as a river, a valley or a road, withouth blocking the way underneath. A bridge provides passage over the obstacle.

BrokenClouds



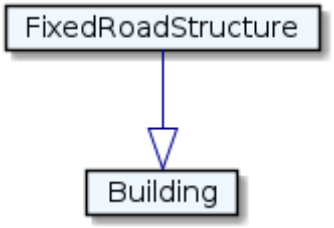
Element	Description
Type	Class
Name	BrokenClouds
IRI	http://ontology.asam.net/ontologies/Domain#BrokenClouds
Subclass of	CloudCondition
Comments	DEF: BrokenClouds is a CloudCondition, is it described by the cloudinessLevel property using oktas unit, BrokenClouds is when the cloudinessLevel is 5-7 oktas.

BrokenLine



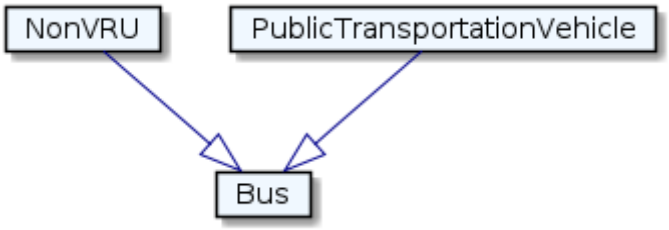
Element	Description
Type	Class
Name	BrokenLine
IRI	http://ontology.asam.net/ontologies/Domain#BrokenLine
Subclass of	LaneMarking
Comments	DEF: BrokenLine is a LaneMarking that is used to mark the middle of a two lane highway to separate traffic on both directions. Drivers are supposed to keep left but can cross the broken line for overtaking if situations permit

Building



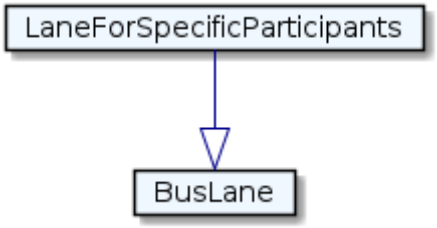
Element	Description
Type	Class
Name	Building
IRI	http://ontology.asam.net/ontologies/Domain#Building
Subclass of	FixedRoadStructure
Comments	DEF: A FixedRoadStructure that is a built physical structure with a roof and walls standing more or less permanently in one place.

Bus



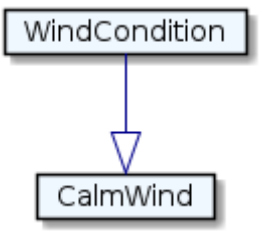
Element	Description
Type	Class
Name	Bus
IRI	http://ontology.asam.net/ontologies/Domain#Bus
Subclass of	NonVRU
Subclass of	PublicTransportationVehicle
Comments	DEF: A vehicle that is designed to carry many passengers and that usually travels along a fixed route according to a schedule.

BusLane



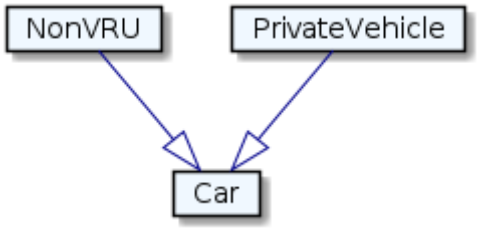
Element	Description
Type	Class
Name	BusLane
IRI	http://ontology.asam.net/ontologies/Domain#BusLane
Subclass of	LaneForSpecificParticipants
Comments	DEF: BusLane is a LaneForSpecificParticipants that is a lane where only buses are allowed to drive

CalmWind



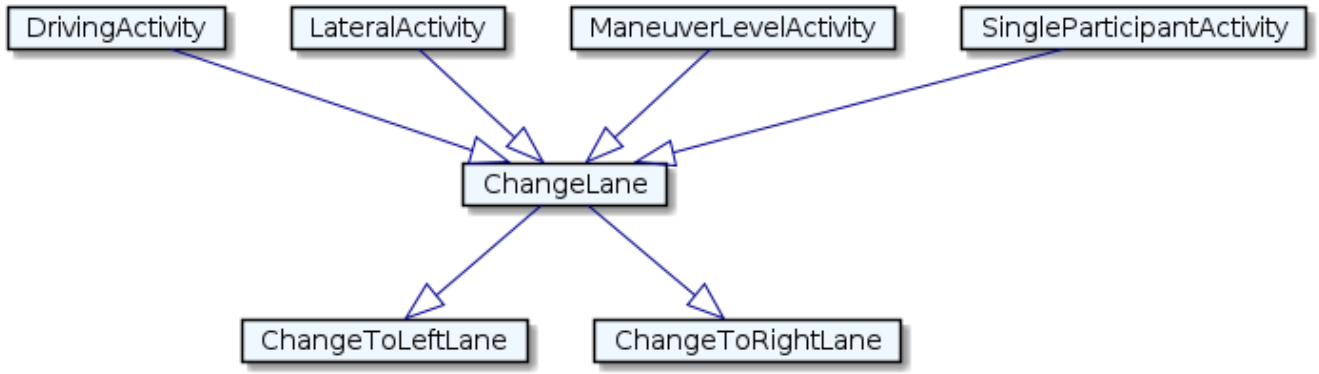
Element	Description
Type	Class
Name	CalmWind
IRI	http://ontology.asam.net/ontologies/Domain#CalmWind
Subclass of	WindCondition
Comments	DEF: CalmWind is a WindCondition, is it described by the WindSpeed property using m/s, CalmWind is when the WindSpeed is 0 - 0.2 m/s.

Car



Element	Description
Type	Class
Name	Car
IRI	http://ontology.asam.net/ontologies/Domain#Car
Subclass of	NonVRU
Subclass of	PrivateVehicle
Comments	DEF: A Vehicle that is an automobile. It is a motor-powered vehicle used for transporting a small number of people.

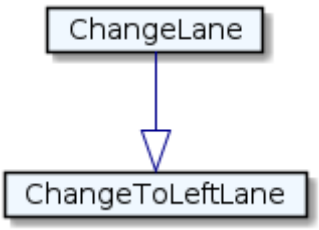
ChangeLane



Element	Description
Type	Class

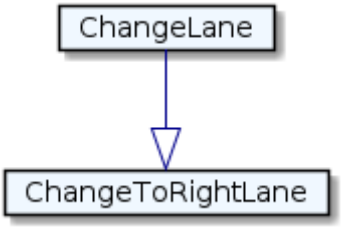
Element	Description
Name	ChangeLane
IRI	http://ontology.asam.net/ontologies/Domain#ChangeLane
Subclass of	DrivingActivity
Subclass of	LateralActivity
Subclass of	ManeuverLevelActivity
Subclass of	SingleParticipantActivity
Comments	DEF: An activity in which the subject vehicle starts from one lane at the beginning of the activity and drives in a different lane at the end of the activity.

ChangeToLeftLane



Element	Description
Type	Class
Name	ChangeToLeftLane
IRI	http://ontology.asam.net/ontologies/Domain#ChangeToLeftLane
Subclass of	ChangeLane
Comments	DEF: A ChangeLane activity where the vehicle drives in one lane at the beginning of the activity and drives in the lane left to the original lane at the end of the activity.

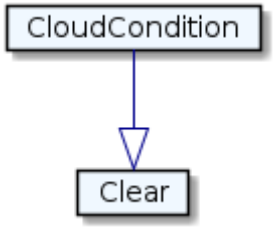
ChangeToRightLane



Element	Description
Type	Class

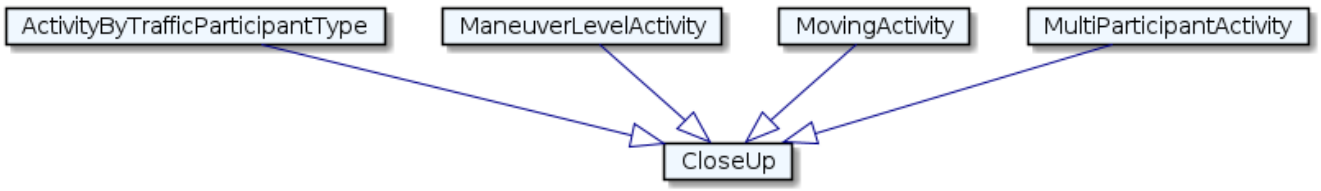
Element	Description
Name	ChangeToRightLane
IRI	http://ontology.asam.net/ontologies/Domain#ChangeToRightLane
Subclass of	ChangeLane
Comments	DEF: A ChangeLane activity where the vehicle drives in one lane at the beginning of the activity and drives in the lane right to the original lane at the end of the activity.

Clear



Element	Description
Type	Class
Name	Clear
IRI	http://ontology.asam.net/ontologies/Domain#Clear
Subclass of	CloudCondition
Comments	DEF: Clear is a CloudCondition, is it described by the cloudinessLevel property using oktas unit, Clear is when the cloudinessLevel is 0-1 oktas.

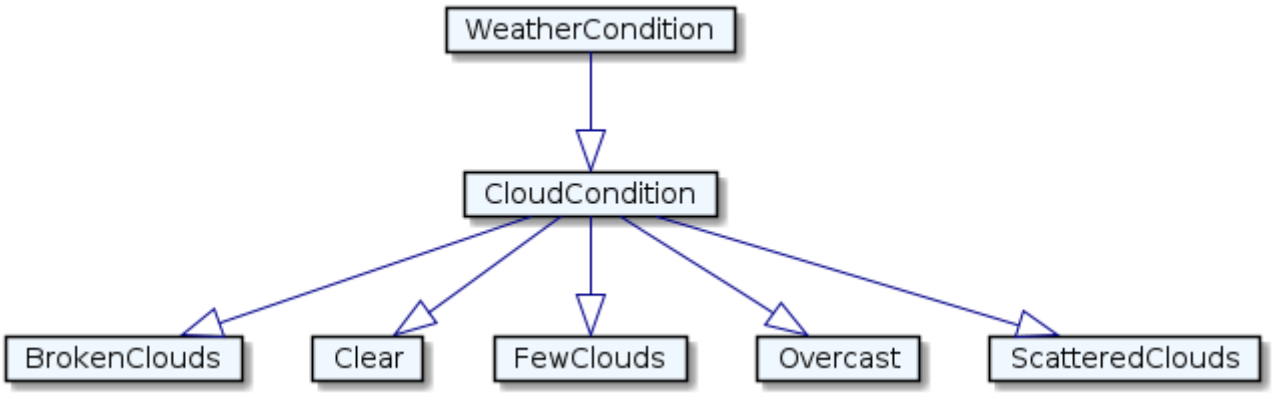
CloseUp



Element	Description
Type	Class
Name	CloseUp
IRI	http://ontology.asam.net/ontologies/Domain#CloseUp
Subclass of	ActivityByTrafficParticipantType
Subclass of	ManeuverLevelActivity

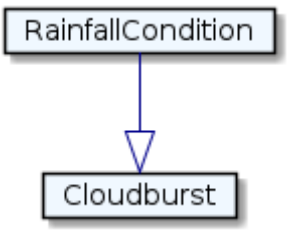
Element	Description
Subclass of	MovingActivity
Subclass of	MultiParticipantActivity
Comments	DEF: A MovingActivity during which the subject traffic participant moves closer to the object traffic participant.

CloudCondition



Element	Description
Type	Class
Name	CloudCondition
IRI	http://ontology.asam.net/ontologies/Domain#CloudCondition
Subclass of	WeatherCondition
Comments	DEF: A WeatherCondition in which a specific amount of the sky is covered by clouds, which affects the illumination of things. This condition can occur during day and night. The amount of sky covered in clouds may be described with the cloudinessLevel property.

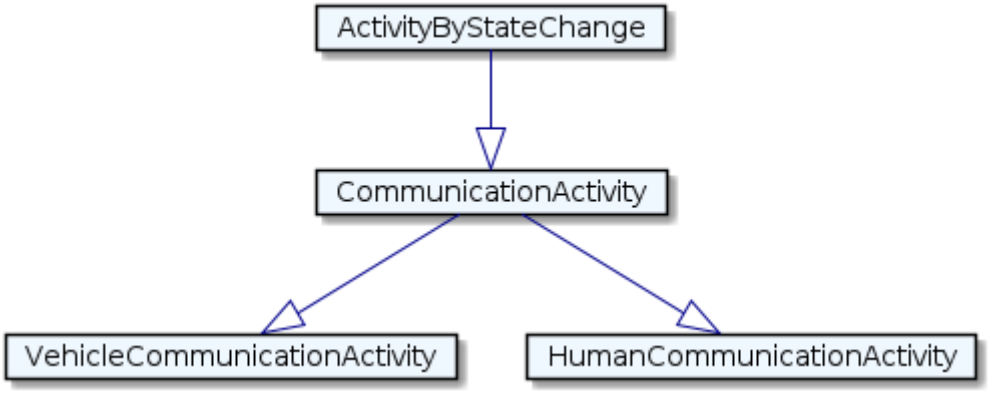
Cloudburst



Element	Description
Type	Class
Name	Cloudburst

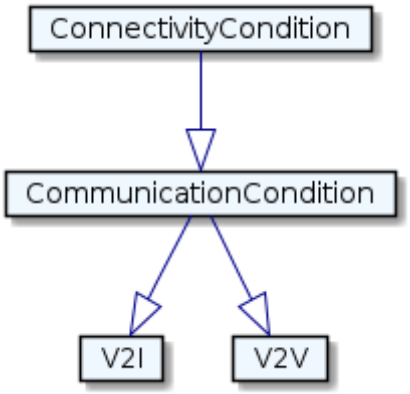
Element	Description
IRI	http://ontology.asam.net/ontologies/Domain#Cloudburst
Subclass of	RainfallCondition
Comments	DEF: Cloudburst is a RainfallCondition, is it described by the precipitationIntensity property using mm/hr, Cloudburst is when the precipitationIntensity is > 100mm/hr.

CommunicationActivity



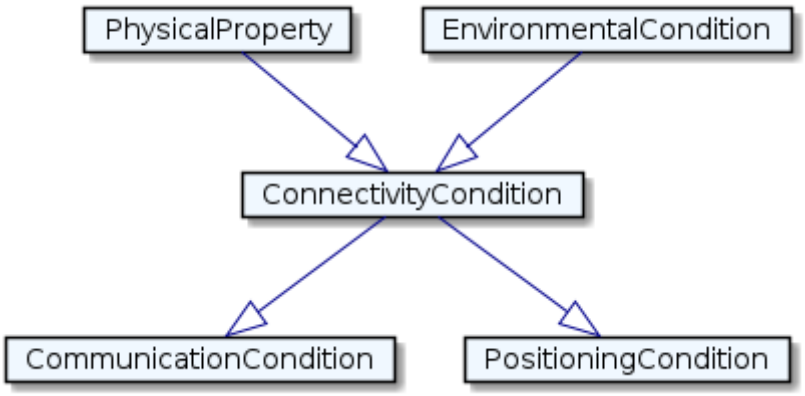
Element	Description
Type	Class
Name	CommunicationActivity
IRI	http://ontology.asam.net/ontologies/Domain#CommunicationActivity
Subclass of	ActivityByStateChange
Comments	DEF: A set of activites that are characterized by the subject traffic participant giving visual or acoustic signals in order to relay its intentions to other traffic participants.

CommunicationCondition



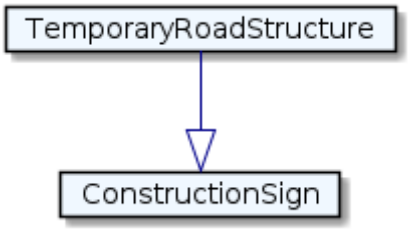
Element	Description
Type	Class
Name	CommunicationCondition
IRI	http://ontology.asam.net/ontologies/Domain#CommunicationCondition
Subclass of	ConnectivityCondition
Comments	DEF: A ConnectivityCondition that defines the type of communication method used for the communication between vehicle and other elements of the traffic domain, such as infrastructure (V2I) or other vehicles (V2V).

ConnectivityCondition



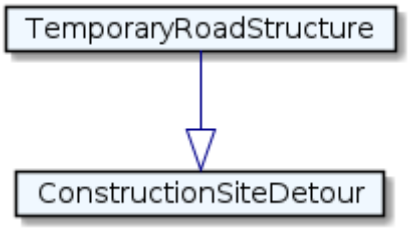
Element	Description
Type	Class
Name	ConnectivityCondition
IRI	http://ontology.asam.net/ontologies/Domain#ConnectivityCondition
Subclass of	PhysicalProperty
Subclass of	EnvironmentalCondition
Comments	DEF: An EnvironmentalCondition that indicates a vehicle's ability to receive data from or transmit data to external systems. The purpose of the data transfer can be positioning of the vehicle or communication with other elements of the traffic domain.

ConstructionSign



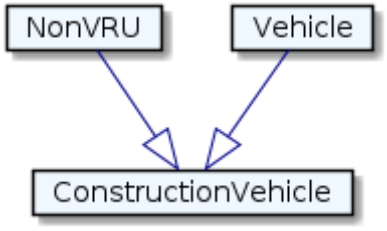
Element	Description
Type	Class
Name	ConstructionSign
IRI	http://ontology.asam.net/ontologies/Domain#ConstructionSign
Subclass of	TemporaryRoadStructure
Comments	DEF: A TemporaryRoadStructure that is a traffic sign indicating construction or landscaping work in a specific area.

ConstructionSiteDetour



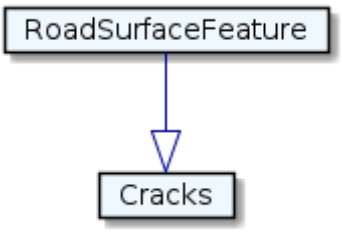
Element	Description
Type	Class
Name	ConstructionSiteDetour
IRI	http://ontology.asam.net/ontologies/Domain#ConstructionSiteDetour
Subclass of	TemporaryRoadStructure
Comments	DEF: A TemporaryRoadStructure that provides a detour or temporary route around an area that needs to be avoided, for example, due to construction work.

ConstructionVehicle



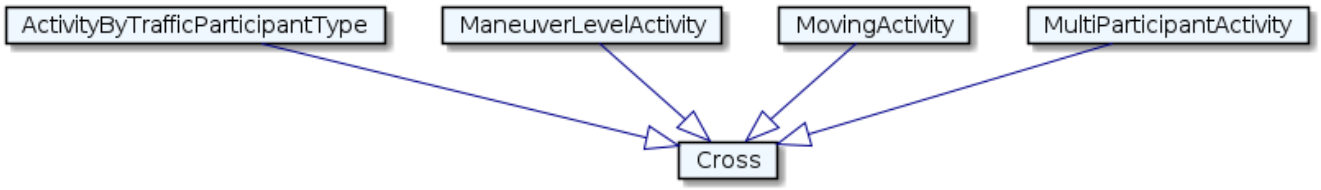
Element	Description
Type	Class
Name	ConstructionVehicle
IRI	http://ontology.asam.net/ontologies/Domain#ConstructionVehicle
Subclass of	NonVRU
Subclass of	Vehicle
Comments	DEF: A vehicle that is specifically built for and used in construction work.

Cracks



Element	Description
Type	Class
Name	Cracks
IRI	http://ontology.asam.net/ontologies/Domain#Cracks
Subclass of	RoadSurfaceFeature
Comments	DEF:Cracks is a RoadSurfaceFeature that are fractures or discontinuation of the road surface.

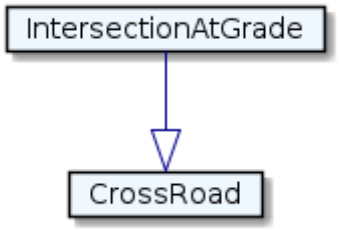
Cross



Element	Description
Type	Class
Name	Cross
IRI	http://ontology.asam.net/ontologies/Domain#Cross
Subclass of	ActivityByTrafficParticipantType

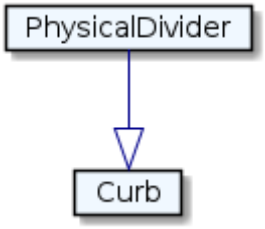
Element	Description
Subclass of	ManeuverLevelActivity
Subclass of	MovingActivity
Subclass of	MultiParticipantActivity
Comments	DEF: A MovingActivity during which the path of the subject traffic participant crosses the path of the object traffic participant.

CrossRoad



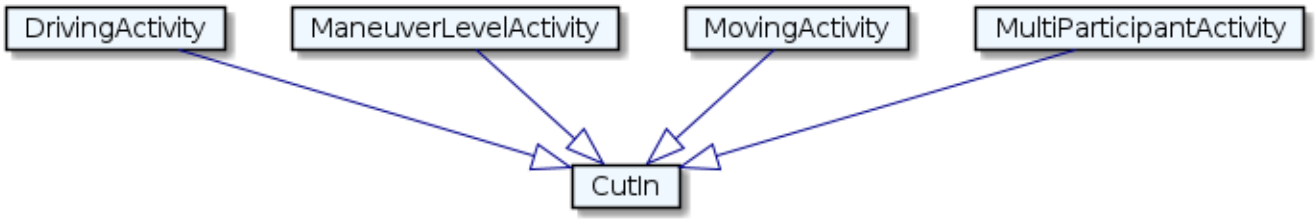
Element	Description
Type	Class
Name	CrossRoad
IRI	http://ontology.asam.net/ontologies/Domain#CrossRoad
Subclass of	IntersectionAtGrade
Comments	DEF: An Intersection where exactly four roads meet.

Curb



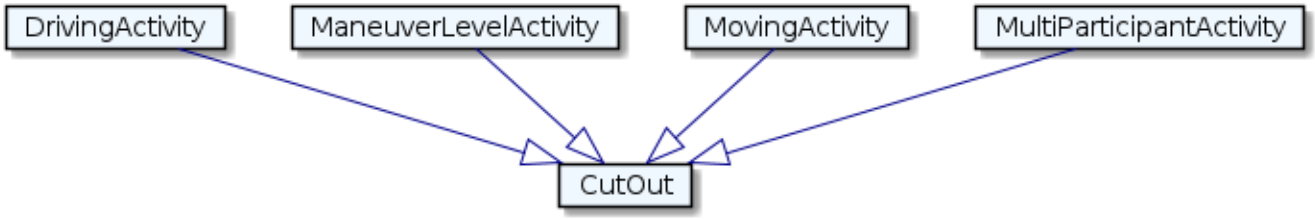
Element	Description
Type	Class
Name	Curb
IRI	http://ontology.asam.net/ontologies/Domain#Curb
Subclass of	PhysicalDivider
Comments	DEF: Curb is a PhysicalDivider that is the edge where a raised sidewalk or road median/central reservation meets a street or other roadway.

CutIn



Element	Description
Type	Class
Name	CutIn
IRI	http://ontology.asam.net/ontologies/Domain#CutIn
Subclass of	DrivingActivity
Subclass of	ManeuverLevelActivity
Subclass of	MovingActivity
Subclass of	MultiParticipantActivity
Comments	DEF: A MovingActivity in which the subject traffic participant ends up directly in front of the object traffic participant. A cutting-in activity can affect the behavior of the object.

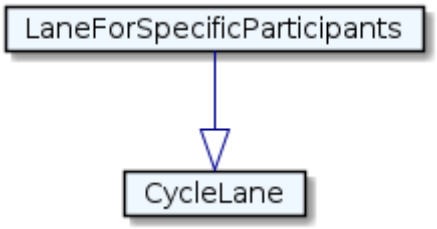
CutOut



Element	Description
Type	Class
Name	CutOut
IRI	http://ontology.asam.net/ontologies/Domain#CutOut
Subclass of	DrivingActivity
Subclass of	ManeuverLevelActivity
Subclass of	MovingActivity
Subclass of	MultiParticipantActivity

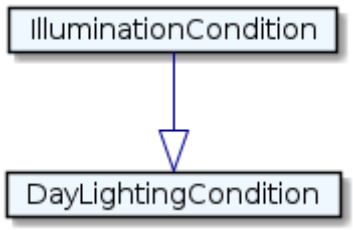
Element	Description
Comments	DEF: A MovingActivity where the subject and the object traffic participants start in the same lane. During the activity, the object traffic participant suddenly leaves the lane.

CycleLane



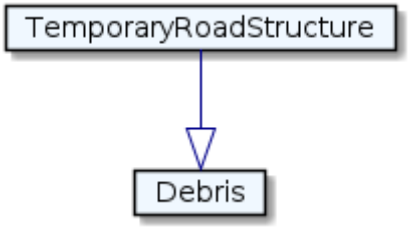
Element	Description
Type	Class
Name	CycleLane
IRI	http://ontology.asam.net/ontologies/Domain#CycleLane
Subclass of	LaneForSpecificParticipants
Comments	DEF: CycleLane is a LaneForSpecificParticipants that is paved and intended for bicycle use only. Contains only regions or ground specifically designated for cyclists where pedestrians and cars should not enter.

DayLightingCondition



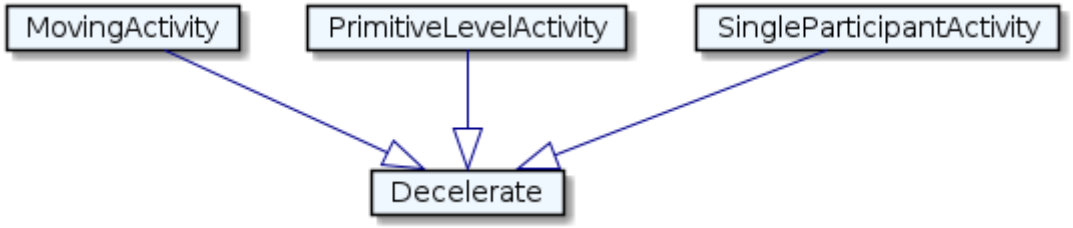
Element	Description
Type	Class
Name	DayLightingCondition
IRI	http://ontology.asam.net/ontologies/Domain#DayLightingCondition
Subclass of	IlluminationCondition
Comments	DEF: An IlluminationCondition where illuminance is greater than 2000 lux.

Debris



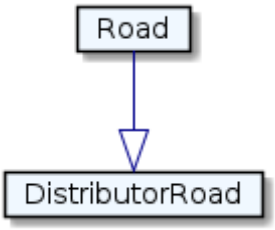
Element	Description
Type	Class
Name	Debris
IRI	http://ontology.asam.net/ontologies/Domain#Debris
Subclass of	TemporaryRoadStructure
Comments	DEF: A TemporaryRoadStructure that consists of scattered pieces of rock, rubbish or other loose material on the road surface; placed not by intention, but by accident or construction work.

Decelerate



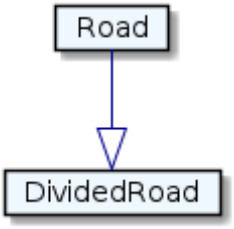
Element	Description
Type	Class
Name	Decelerate
IRI	http://ontology.asam.net/ontologies/Domain#Decelerate
Subclass of	MovingActivity
Subclass of	PrimitiveLevelActivity
Subclass of	SingleParticipantActivity
Comments	DEF: A MovingActivity with one traffic participant during which the speed of the traffic participant decreases continuously.

DistributorRoad



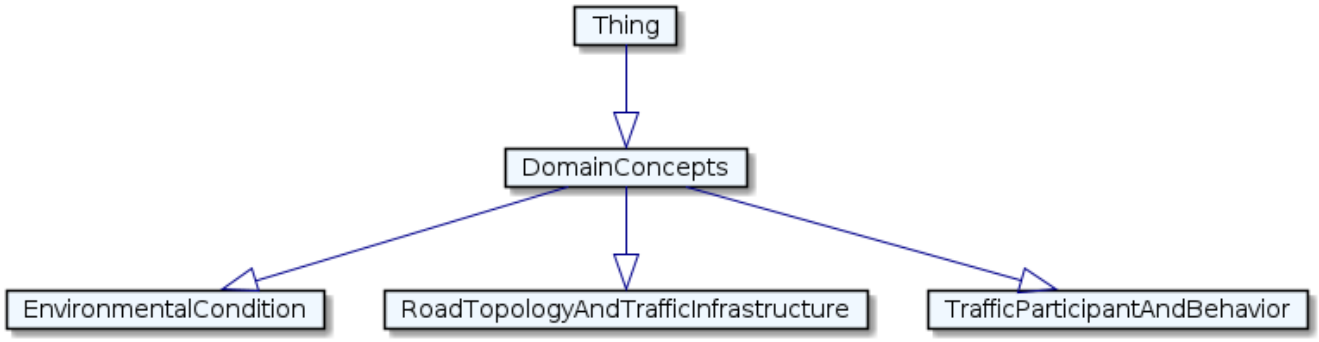
Element	Description
Type	Class
Name	DistributorRoad
IRI	http://ontology.asam.net/ontologies/Domain#DistributorRoad
Subclass of	Road
Comments	DEF: A Road with low to moderate capacity that connects local and minor roads to arterial roads.

DividedRoad



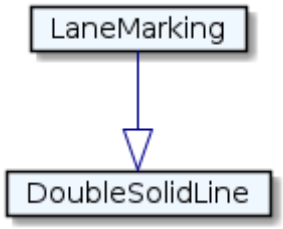
Element	Description
Type	Class
Name	DividedRoad
IRI	http://ontology.asam.net/ontologies/Domain#DividedRoad
Subclass of	Road
Comments	DEF: A type of road that has several carriageways for traffic travelling in opposite directions. The carriageways are separated by a central reservation.

DomainConcepts



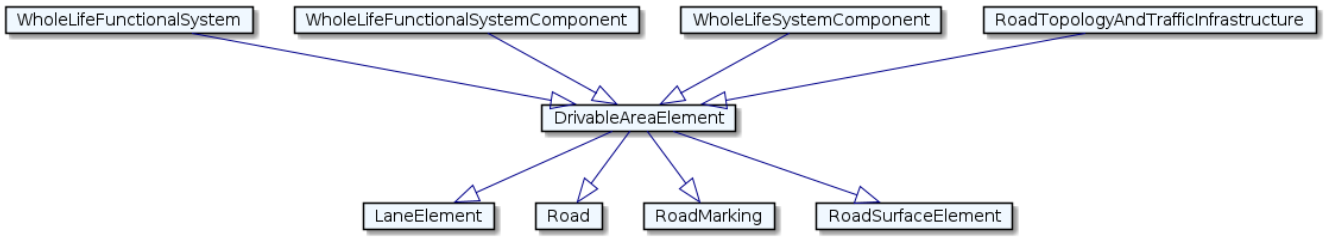
Element	Description
Type	Class
Name	DomainConcepts
IRI	http://ontology.asam.net/ontologies/Domain#DomainConcepts
Subclass of	Thing
Comments	DEF: Top-level container that separates domain concepts in the OpenXOntology. The DomainConcepts define central concepts of the road traffic domain, for example, lane, road, and vehicle. It contains only concepts that are shared by multiple ASAM OpenX standards using the ASAM OpenXOntology and that are not controlled by a single standard.

DoubleSolidLine



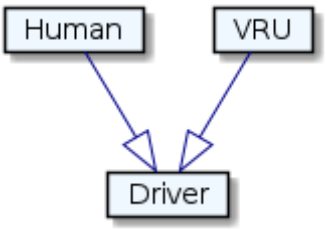
Element	Description
Type	Class
Name	DoubleSolidLine
IRI	http://ontology.asam.net/ontologies/Domain#DoubleSolidLine
Subclass of	LaneMarking
Comments	DEF: DoubleSolidLine is a LaneMarking that separates two lanes.

DrivableAreaElement



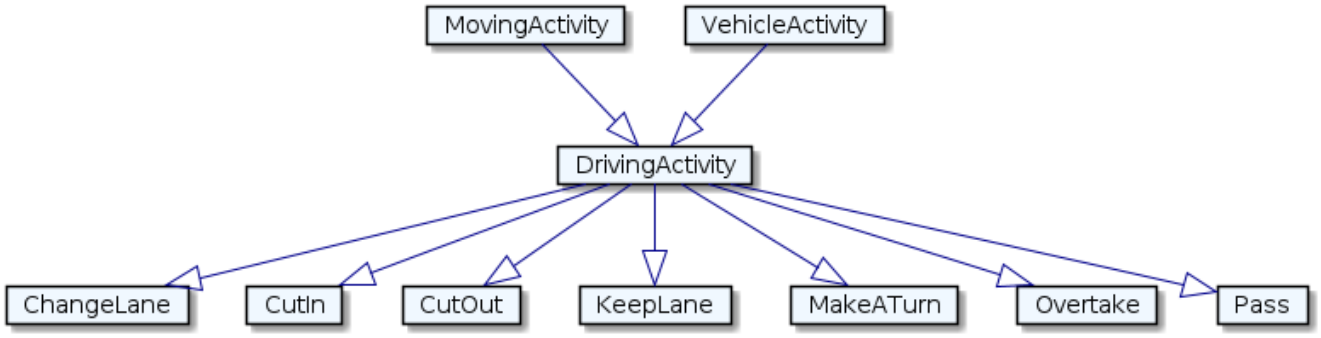
Element	Description
Type	Class
Name	DrivableAreaElement
IRI	http://ontology.asam.net/ontologies/Domain#DrivableAreaElement
Subclass of	WholeLifeFunctionalSystem
Subclass of	WholeLifeFunctionalSystemComponent
Subclass of	WholeLifeSystemComponent
Subclass of	RoadTopologyAndTrafficInfrastructure
Comments	DEF: Areas in the traffic infrastructure that vehicles are supposed and permitted to drive in.

Driver



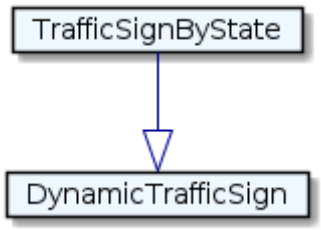
Element	Description
Type	Class
Name	Driver
IRI	http://ontology.asam.net/ontologies/Domain#Driver
Subclass of	Human
Subclass of	VRU
Comments	DEF: A HumanParticipant who controls a vehicle.

DrivingActivity



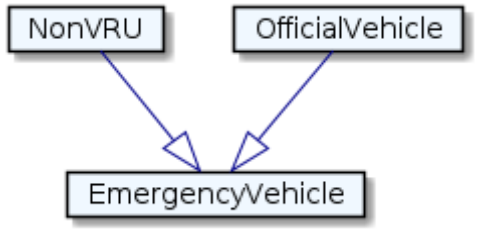
Element	Description
Type	Class
Name	DrivingActivity
IRI	http://ontology.asam.net/ontologies/Domain#DrivingActivity
Subclass of	MovingActivity
Subclass of	VehicleActivity
Comments	DEF: A set of moving activites that are characterized by a continuous movement of the traffic participants during the complete activity.

DynamicTrafficSign



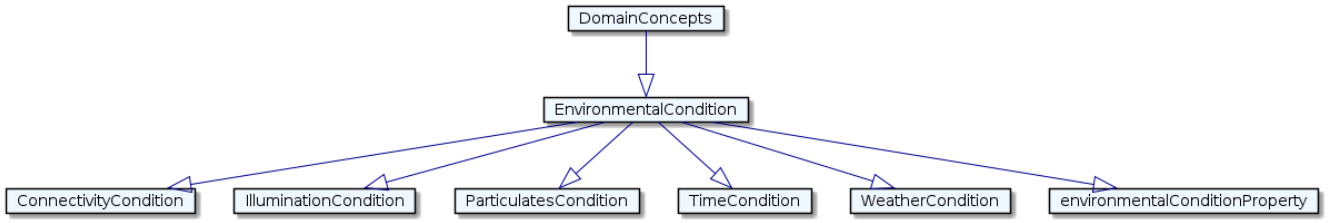
Element	Description
Type	Class
Name	DynamicTrafficSign
IRI	http://ontology.asam.net/ontologies/Domain#DynamicTrafficSign
Subclass of	TrafficSignByState
Comments	DEF: A traffic sign whose content can be changed.

EmergencyVehicle



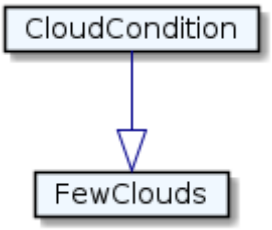
Element	Description
Type	Class
Name	EmergencyVehicle
IRI	http://ontology.asam.net/ontologies/Domain#EmergencyVehicle
Subclass of	NonVRU
Subclass of	OfficialVehicle
Comments	DEF: A vehicle that is used by an emergency service to respond to incidents.

EnvironmentalCondition



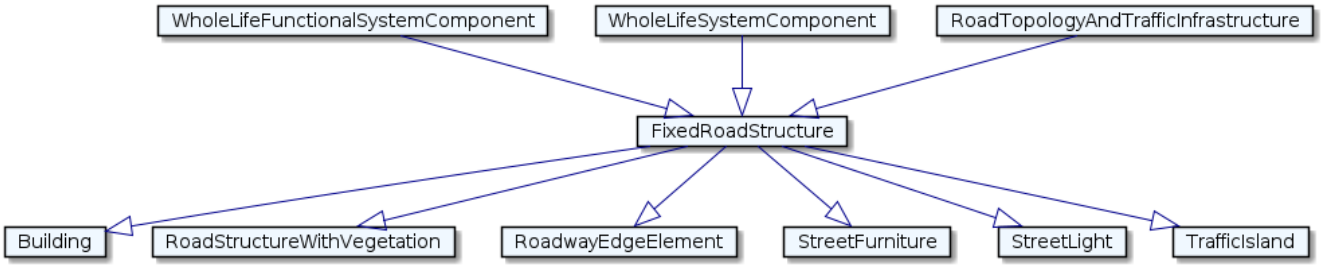
Element	Description
Type	Class
Name	EnvironmentalCondition
IRI	http://ontology.asam.net/ontologies/Domain#EnvironmentalCondition
Subclass of	DomainConcepts
Comments	DEF: A set of environmental parameters that applies to a complete area, such as a town or a district. Conditions can have natural causes, for example rain or snowfall, or can be created artificially, for example by light sources or communication devices using specific methods like vehice-to-vehicle communication.

FewClouds



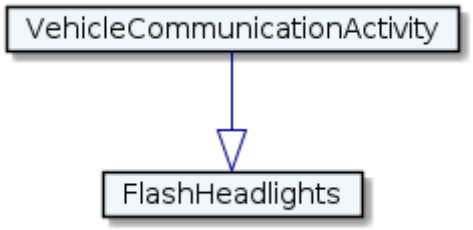
Element	Description
Type	Class
Name	FewClouds
IRI	http://ontology.asam.net/ontologies/Domain#FewClouds
Subclass of	CloudCondition
Comments	DEF: FewClouds is a CloudCondition, is it described by the cloudinessLevel property using oktas unit, FewClouds is when the cloudinessLevel is 1-2 oktas.

FixedRoadStructure



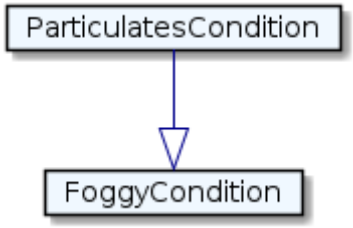
Element	Description
Type	Class
Name	FixedRoadStructure
IRI	http://ontology.asam.net/ontologies/Domain#FixedRoadStructure
Subclass of	WholeLifeFunctionalSystemComponent
Subclass of	WholeLifeSystemComponent
Subclass of	RoadTopologyAndTrafficInfrastructure
Comments	DEF: An element of the traffic infrastructure with a physical form that is either built or natural and is located near to or on a drivable area. Vehicles are not allowed to drive on a FixedRoadStructure.

FlashHeadlights



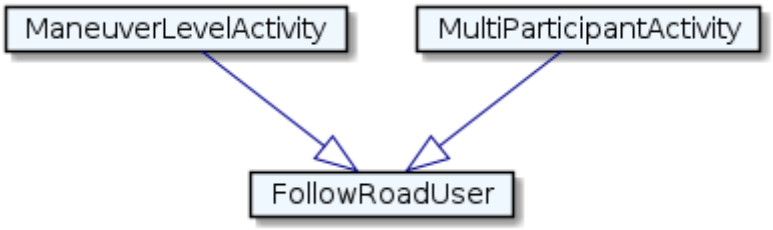
Element	Description
Type	Class
Name	FlashHeadlights
IRI	http://ontology.asam.net/ontologies/Domain#FlashHeadlights
Subclass of	VehicleCommunicationActivity
Comments	DEF: A VehicleCommunicatingActivity in which the subject vehicle communicates a potential warning to the object vehicle by either briefly switching on the headlights or switching between low beams and high beams.

FoggyCondition



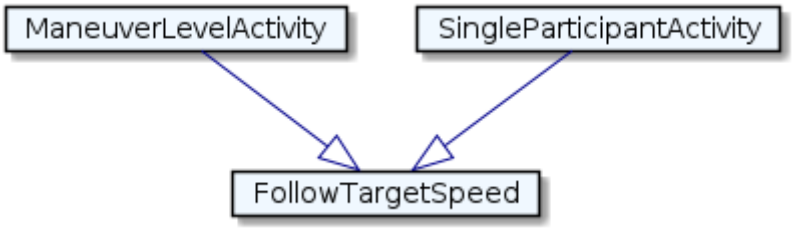
Element	Description
Type	Class
Name	FoggyCondition
IRI	http://ontology.asam.net/ontologies/Domain#FoggyCondition
Subclass of	ParticulatesCondition
Comments	DEF: A ParticulateCondition where the particles are a mixture of non-precipitating water droplets or ice crystals.

FollowRoadUser



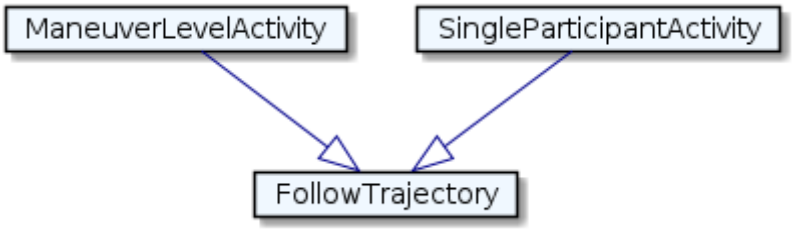
Element	Description
Type	Class
Name	FollowRoadUser
IRI	http://ontology.asam.net/ontologies/Domain#FollowRoadUser
Subclass of	ManeuverLevelActivity
Subclass of	MultiParticipantActivity
Comments	DEF: An activity in which the subject traffic participant drives behind the object traffic participant at the same speed.

FollowTargetSpeed



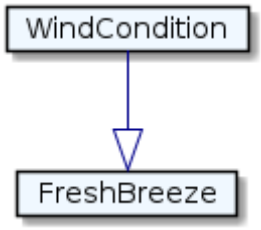
Element	Description
Type	Class
Name	FollowTargetSpeed
IRI	http://ontology.asam.net/ontologies/Domain#FollowTargetSpeed
Subclass of	ManeuverLevelActivity
Subclass of	SingleParticipantActivity
Comments	DEF: An activity in which the subject traffic participant drives at a fixed, configured speed.

FollowTrajectory



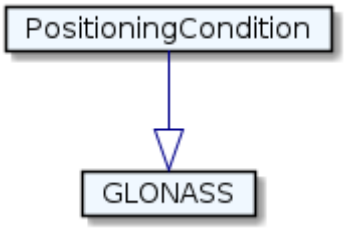
Element	Description
Type	Class
Name	FollowTrajectory
IRI	http://ontology.asam.net/ontologies/Domain#FollowTrajectory
Subclass of	ManeuverLevelActivity
Subclass of	SingleParticipantActivity
Comments	DEF: An activity in which the subject traffic participant follows a defined driving path for a specific period of time.

FreshBreeze



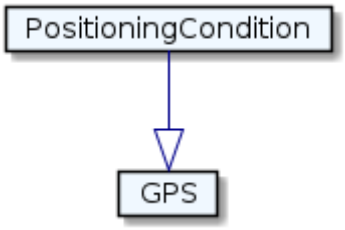
Element	Description
Type	Class
Name	FreshBreeze
IRI	http://ontology.asam.net/ontologies/Domain#FreshBreeze
Subclass of	WindCondition
Comments	DEF: FreshBreeze is a WindCondition, is it described by the WindSpeed property using m/s, FreshBreeze is when the WindSpeed is 8.0-10.7 m/s.

GLONASS



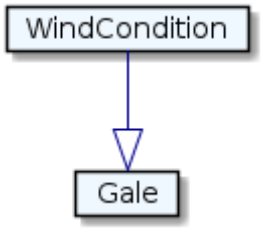
Element	Description
Type	Class
Name	GLONASS
IRI	http://ontology.asam.net/ontologies/Domain#GLONASS
Subclass of	PositioningCondition
Comments	DEF: A PositioningCondition in which the vehicle's position is determined using the GLONASS global navigation satellite system.

GPS



Element	Description
Type	Class
Name	GPS
IRI	http://ontology.asam.net/ontologies/Domain#GPS
Subclass of	PositioningCondition
Comments	DEF: A PositioningCondition in which the vehicle's position is determined using the Global Positioning System (GPS).

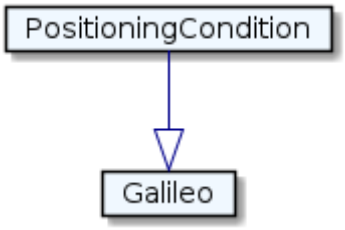
Gale



Element	Description
Type	Class
Name	Gale
IRI	http://ontology.asam.net/ontologies/Domain#Gale
Subclass of	WindCondition

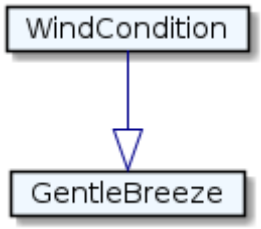
Element	Description
Comments	DEF: Gale is a WindCondition, is it described by the WindSpeed property using m/s, Gale is when the WindSpeed is 17.2-20.7 m/s.

Galileo



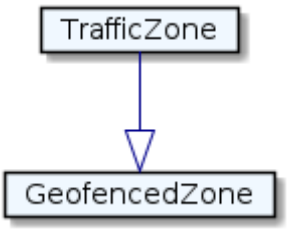
Element	Description
Type	Class
Name	Galileo
IRI	http://ontology.asam.net/ontologies/Domain#Galileo
Subclass of	PositioningCondition
Comments	DEF: A PositioningCondition in which the vehicle's position is determined using the Galileo global navigation satellite system.

GentleBreeze



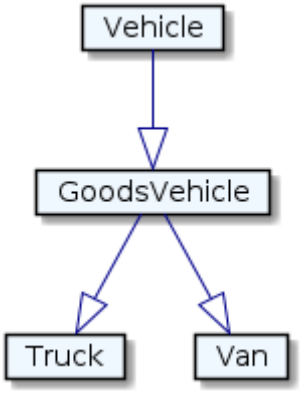
Element	Description
Type	Class
Name	GentleBreeze
IRI	http://ontology.asam.net/ontologies/Domain#GentleBreeze
Subclass of	WindCondition
Comments	DEF: GentleBreeze is a WindCondition, is it described by the WindSpeed property using m/s, GentleBreeze is when the WindSpeed is 3.4-5.4 m/s.

GeofencedZone



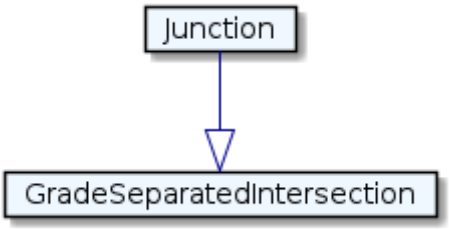
Element	Description
Type	Class
Name	GeofencedZone
IRI	http://ontology.asam.net/ontologies/Domain#GeofencedZone
Subclass of	TrafficZone
Comments	DEF: A geographic Zone with a virtual perimeter. Geofencing uses the GPS signal or other device services to track when a device crosses the virtual perimeter and enters the geo-fenced zone.

GoodsVehicle



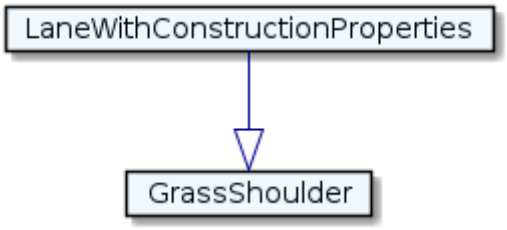
Element	Description
Type	Class
Name	GoodsVehicle
IRI	http://ontology.asam.net/ontologies/Domain#GoodsVehicle
Subclass of	Vehicle
Comments	DEF: Goods vehicles are vehicles with their designed purpose of transporting goods

GradeSeparatedIntersection



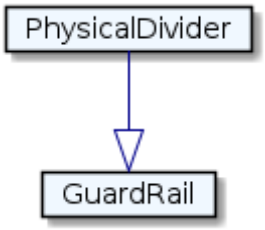
Element	Description
Type	Class
Name	GradeSeparatedIntersection
IRI	http://ontology.asam.net/ontologies/Domain#GradeSeparatedIntersection
Subclass of	Junction
Comments	DEF: A Junction with two or more roads at different heights (grades). This layout ensures that the traffic flow on each axis is not disrupted by the crossing. The grade separation of the roads is achieved by means of overpasses, for example bridges, or underpasses, for example tunnels, or a combination of both.

GrassShoulder



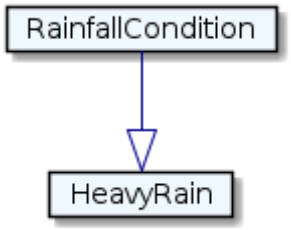
Element	Description
Type	Class
Name	GrassShoulder
IRI	http://ontology.asam.net/ontologies/Domain#GrassShoulder
Subclass of	LaneWithConstructionProperties
Comments	DEF: GrassShoulder is a LanesWithConstructionProperties that is an emergency stopping lane by the verge of a road or motorway. Hence, a shoulder, where the surface of a lane consists out of grass is called grass shoulder

GuardRail



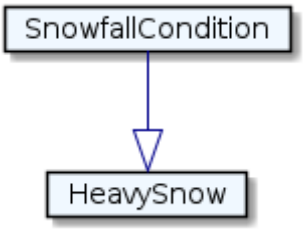
Element	Description
Type	Class
Name	GuardRail
IRI	http://ontology.asam.net/ontologies/Domain#GuardRail
Subclass of	PhysicalDivider
Comments	DEF: GuardRail is a PhysicalDivider that is a strong fence at the side of a road or in the middle of an expressway, intended to reduce the risk of serious accidents; a crash barrier.

HeavyRain



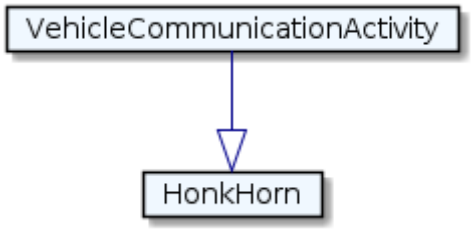
Element	Description
Type	Class
Name	HeavyRain
IRI	http://ontology.asam.net/ontologies/Domain#HeavyRain
Subclass of	RainfallCondition
Comments	DEF: HeavyRain is a RainfallCondition, is it described by the precipitationIntensity property using mm/hr, HeavyRain is when the precipitationIntensity is 7.6 - 50 mm/hr.

HeavySnow



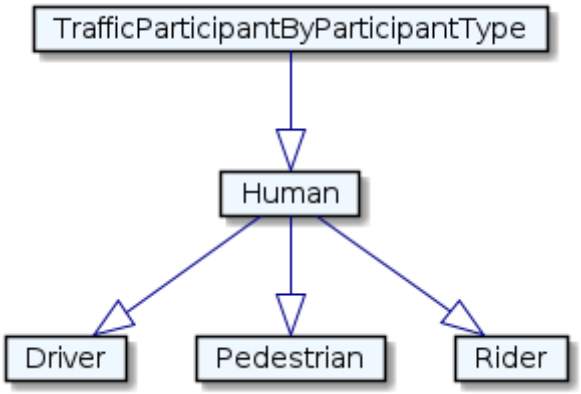
Element	Description
Type	Class
Name	HeavySnow
IRI	http://ontology.asam.net/ontologies/Domain#HeavySnow
Subclass of	SnowfallCondition
Comments	DEF: HeavySnow is a SnowfallCondition, is it described by the SnowfallIntensity property using visibility, HeavySnow is when the SnowfallIntensity is < 0.5 km.

HonkHorn



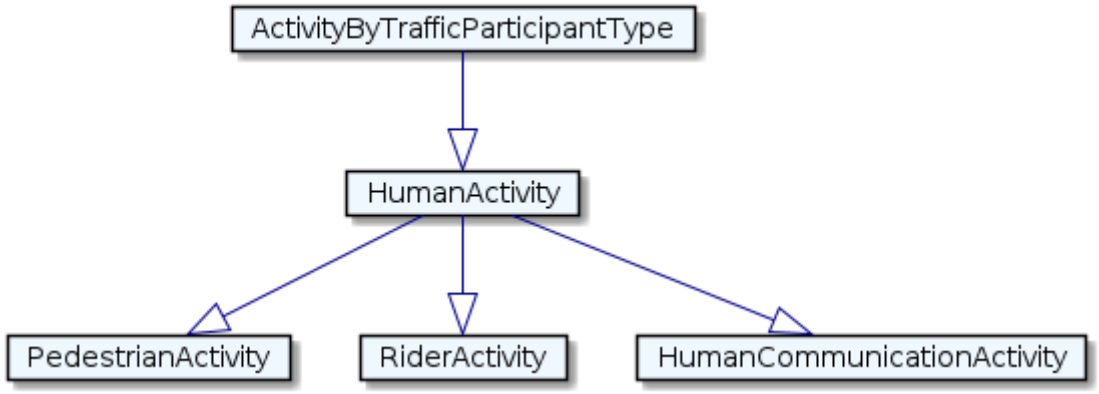
Element	Description
Type	Class
Name	HonkHorn
IRI	http://ontology.asam.net/ontologies/Domain#HonkHorn
Subclass of	VehicleCommunicationActivity
Comments	DEF: A VehicleCommunicatingActivity in which the subject vehicle sounds the car horn in order to warn other traffic participants.

Human



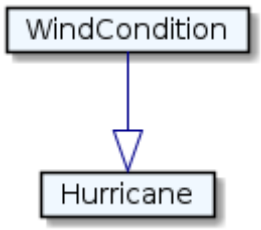
Element	Description
Type	Class
Name	Human
IRI	http://ontology.asam.net/ontologies/Domain#Human
Subclass of	TrafficParticipantByParticipantType
Comments	DEF: A human TrafficParticipant that is driving or moving in traffic, either within/on a vehicle or as pedestrian.

HumanActivity



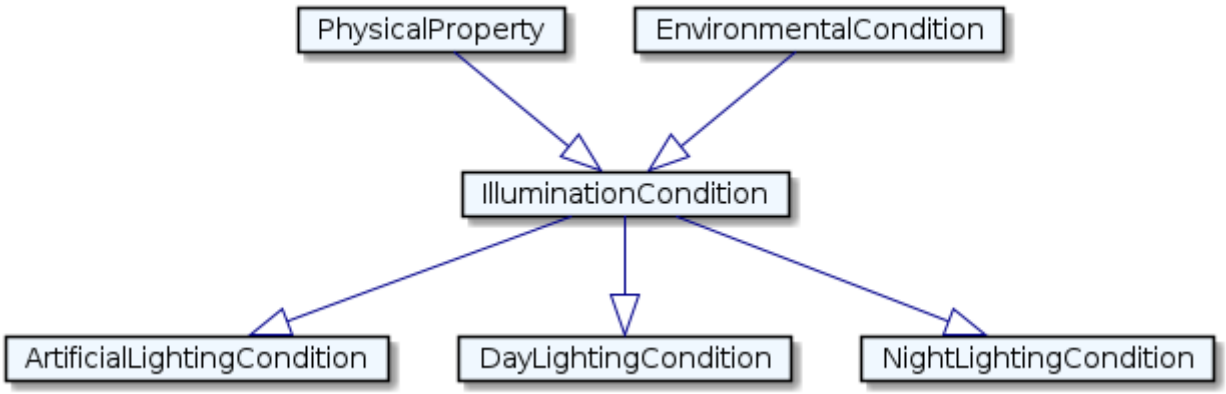
Element	Description
Type	Class
Name	HumanActivity
IRI	http://ontology.asam.net/ontologies/Domain#HumanActivity
Subclass of	ActivityByTrafficParticipantType
Comments	DEF: A set of activities performed by humans, such as pedestrians.

Hurricane



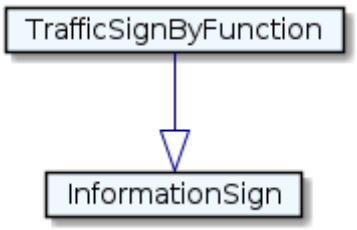
Element	Description
Type	Class
Name	Hurricane
IRI	http://ontology.asam.net/ontologies/Domain#Hurricane
Subclass of	WindCondition
Comments	DEF: Hurricane is a WindCondition, is it described by the WindSpeed property using m/s, Hurricane is when the WindSpeed is >= 32.7 m/s.

IlluminationCondition



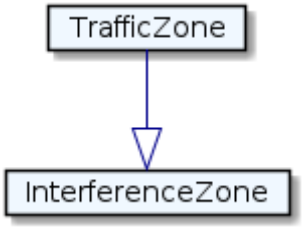
Element	Description
Type	Class
Name	IlluminationCondition
IRI	http://ontology.asam.net/ontologies/Domain#IlluminationCondition
Subclass of	PhysicalProperty
Subclass of	EnvironmentalCondition
Comments	DEF: An EnvironmentalCondition that is defined by the characteristics of light within a specific traffic situation. The objects that emit the light may be manufactured, such as lamps, or natural, like the sun. Illumination can improve the visibility of things or deteriorate it, for example by shadows or glare.

InformationSign



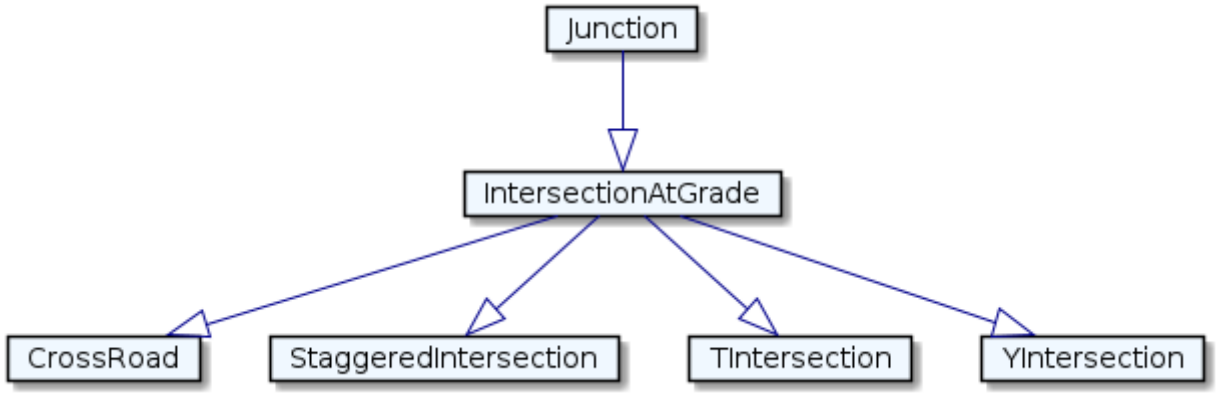
Element	Description
Type	Class
Name	InformationSign
IRI	http://ontology.asam.net/ontologies/Domain#InformationSign
Subclass of	TrafficSignByFunction
Comments	DEF: A traffic sign that provides information to traffic participants regarding the route, traffic flow, or road condition, but does not enforce any traffic rule.

InterferenceZone



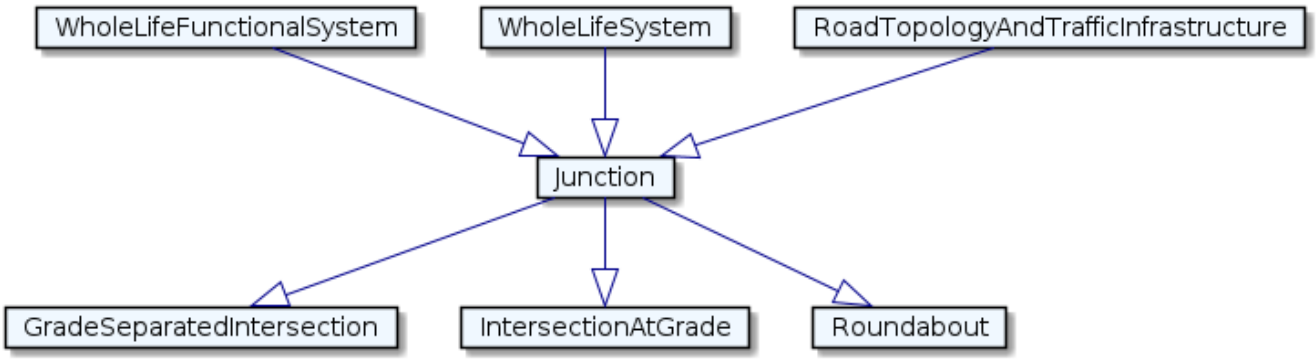
Element	Description
Type	Class
Name	InterferenceZone
IRI	http://ontology.asam.net/ontologies/Domain#InterferenceZone
Subclass of	TrafficZone
Comments	DEF: A zone with limited positioning-signal reception caused by dense foliage on surfaces, tall buildings, tunnels, atmospheric interference, or similar.

IntersectionAtGrade



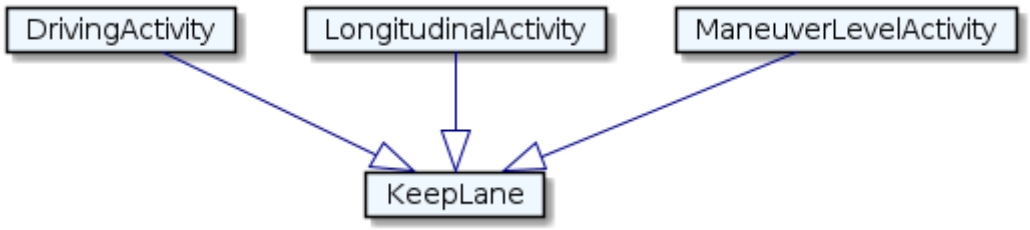
Element	Description
Type	Class
Name	IntersectionAtGrade
IRI	http://ontology.asam.net/ontologies/Domain#IntersectionAtGrade
Subclass of	Junction
Comments	DEF: A Junction where two or more roads meet at the same level.

Junction



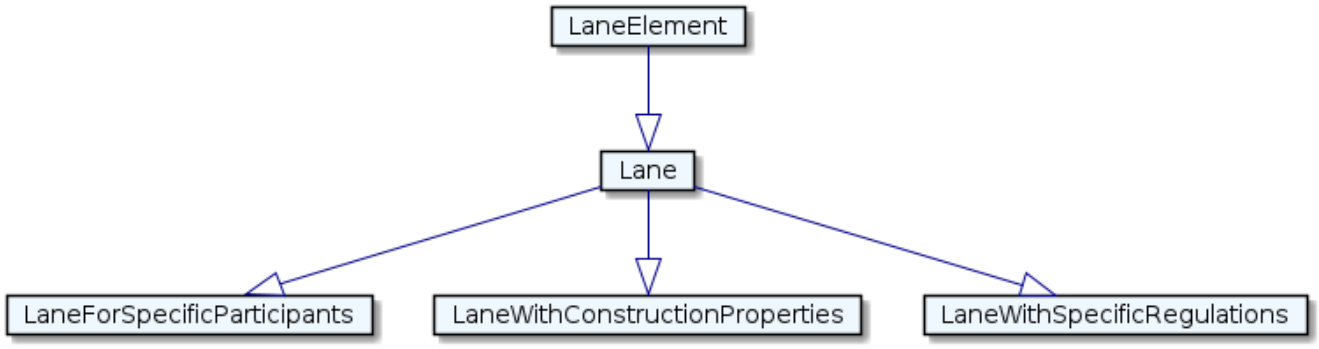
Element	Description
Type	Class
Name	Junction
IRI	http://ontology.asam.net/ontologies/Domain#Junction
Subclass of	WholeLifeFunctionalSystem
Subclass of	WholeLifeSystem
Subclass of	RoadTopologyAndTrafficInfrastructure
Comments	DEF: A RoadTopologyAndTrafficInfrastructure where two or more roads meet.

KeepLane



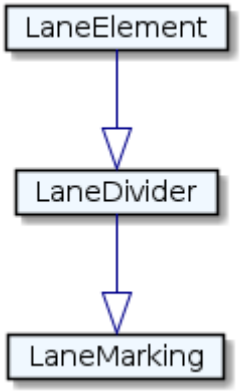
Element	Description
Type	Class
Name	KeepLane
IRI	http://ontology.asam.net/ontologies/Domain#KeepLane
Subclass of	DrivingActivity
Subclass of	LongitudinalActivity
Subclass of	ManeuverLevelActivity
Comments	DEF: A MovingActivity in which the subject traffic participant keeps the same lane for the entire duration of the activity.

Lane



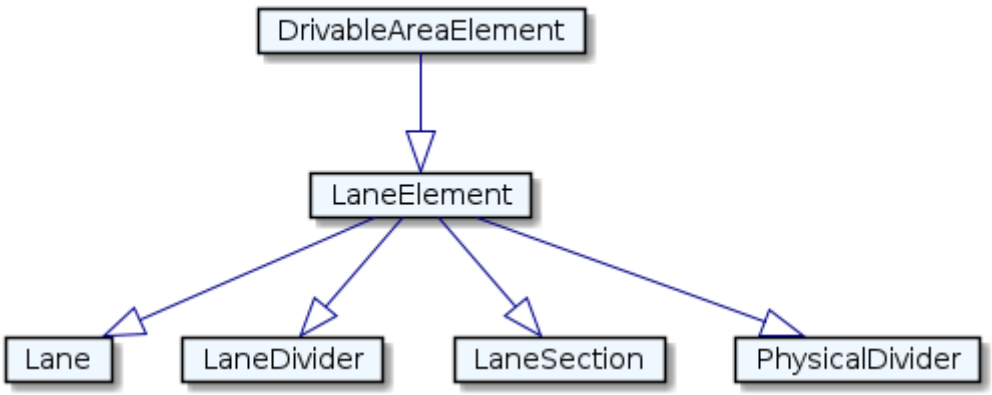
Element	Description
Type	Class
Name	Lane
IRI	http://ontology.asam.net/ontologies/Domain#Lane
Subclass of	LaneElement
Comments	DEF: Lane is a LaneElements that is a division of a road that is marked out by dividers, it is intended for use by traffic participants. The lane class contains the type of lanes that can be used to form part of the road

LaneDivider



Element	Description
Type	Class
Name	LaneDivider
IRI	http://ontology.asam.net/ontologies/Domain#LaneDivider
Subclass of	LaneElement
Comments	DEF: LaneDivider is a LaneElement that is the extruded or painted component that separate one lane from the others. Typical lane dividers include lane markings and physical extrusion features such as guardrails or curbs.

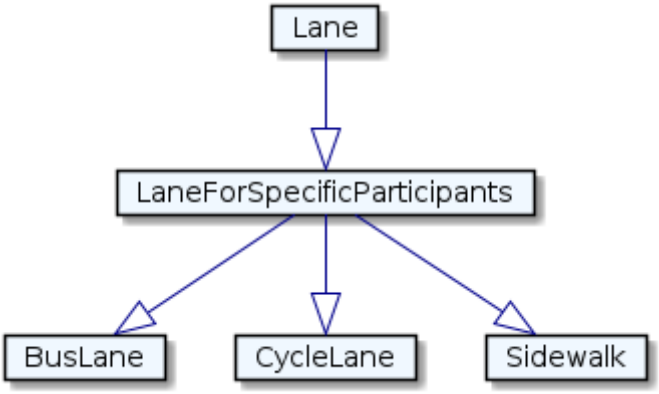
LaneElement



Element	Description
Type	Class
Name	LaneElement
IRI	http://ontology.asam.net/ontologies/Domain#LaneElement
Subclass of	DrivableAreaElement

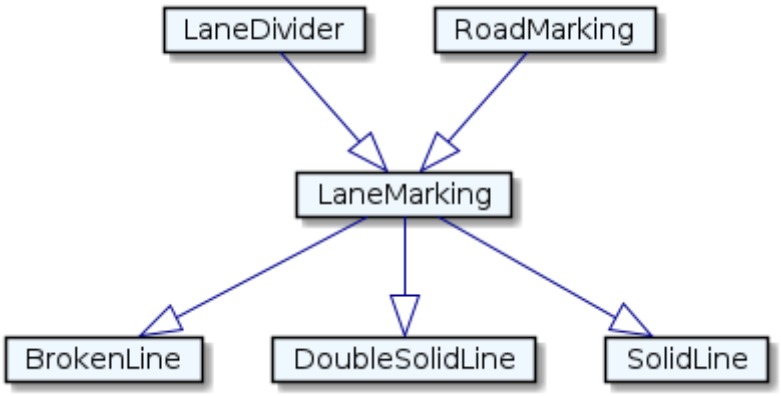
Element	Description
Comments	DEF: A DriveableArea element that represents a part of a road, usually marked by lines, that is designed to be used by a single line of vehicles. Lanes may have different types, for example, dependent on the allowed vehicle types, and may have different characteristics, such as markings and curbs.

LaneForSpecificParticipants



Element	Description
Type	Class
Name	LaneForSpecificParticipants
IRI	http://ontology.asam.net/ontologies/Domain#LaneForSpecificParticipants
Subclass of	Lane
Comments	DEF: LaneForSpecificParticipants is a lane, which can be assoiated and categorized based on specific types of allowed traffic participants.

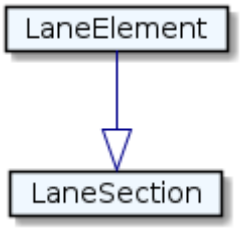
LaneMarking



Element	Description
Type	Class

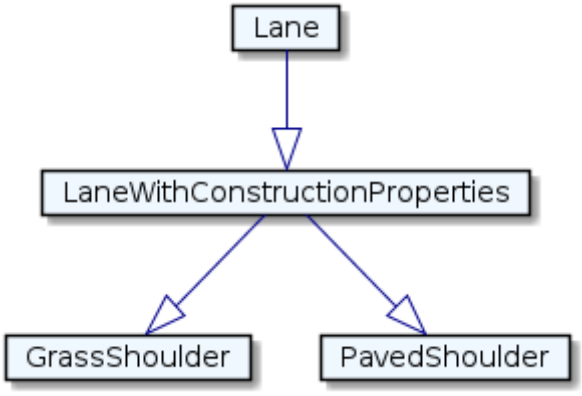
Element	Description
Name	LaneMarking
IRI	http://ontology.asam.net/ontologies/Domain#LaneMarking
Subclass of	LaneDivider
Subclass of	RoadMarking
Comments	DEF: LaneMarking is a type of LaneDivider, that is applied to individual indicating traffic rules such as lane change restriction.

LaneSection



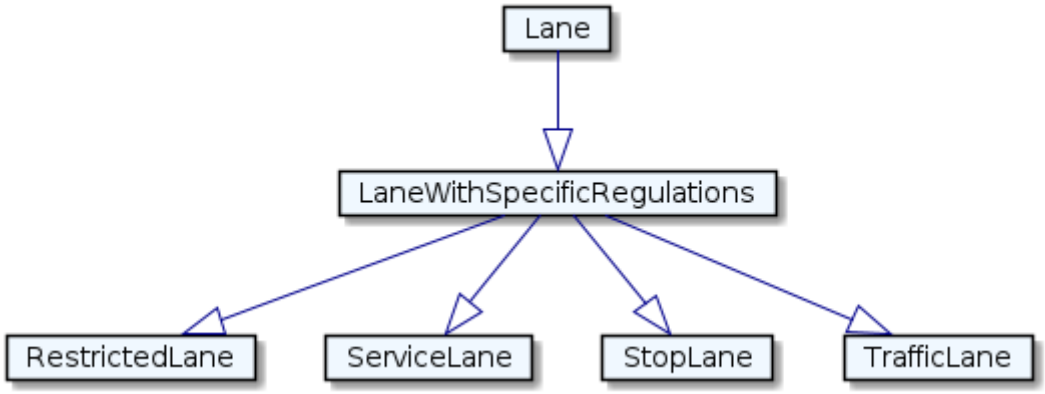
Element	Description
Type	Class
Name	LaneSection
IRI	http://ontology.asam.net/ontologies/Domain#LaneSection
Subclass of	LaneElement
Comments	DEF: LaneSection is a LaneElements. Lanes may be split into multiple lane sections. Each lane section contains a fixed number of lanes. Every time the number of lanes changes, a new lane section is required Lane sections are defined in ascending order along the road reference line.

LaneWithConstructionProperties



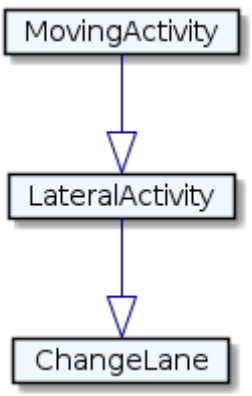
Element	Description
Type	Class
Name	LaneWithConstructionProperties
IRI	http://ontology.asam.net/ontologies/Domain#LaneWithConstructionProperties
Subclass of	Lane
Comments	DEF: LaneWithConstructionProperties is a lane, which can be assoiated and categorized based on surface material.

LaneWithSpecificRegulations



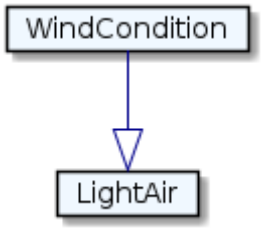
Element	Description
Type	Class
Name	LaneWithSpecificRegulations
IRI	http://ontology.asam.net/ontologies/Domain#LaneWithSpecificRegulations
Subclass of	Lane
Comments	DEF: LaneWithSpecificRegulations is a lane, which can be assoiated and categorized based on allowed traffic function and rules.

LateralActivity



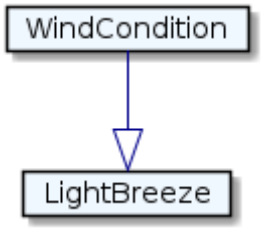
Element	Description
Type	Class
Name	LateralActivity
IRI	http://ontology.asam.net/ontologies/Domain#LateralActivity
Subclass of	MovingActivity
Comments	DEF: A MovingActivity which is characterized by sideways movement.

LightAir



Element	Description
Type	Class
Name	LightAir
IRI	http://ontology.asam.net/ontologies/Domain#LightAir
Subclass of	WindCondition
Comments	DEF: LightAir is a WindCondition, is it described by the WindSpeed property using m/s, LightAir is when the WindSpeed is 0.3-1.5 m/s.

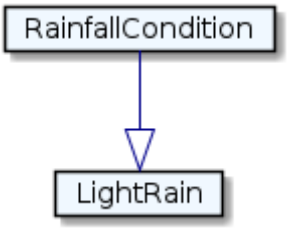
LightBreeze



Element	Description
Type	Class
Name	LightBreeze
IRI	http://ontology.asam.net/ontologies/Domain#LightBreeze
Subclass of	WindCondition

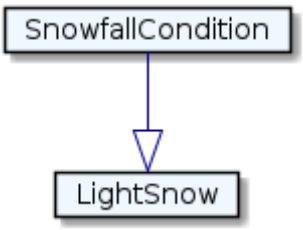
Element	Description
Comments	DEF: LightBreeze is a WindCondition, is it described by the WindSpeed property using m/s, LightBreeze is when the WindSpeed is 1.6-3.3 m/s.

LightRain



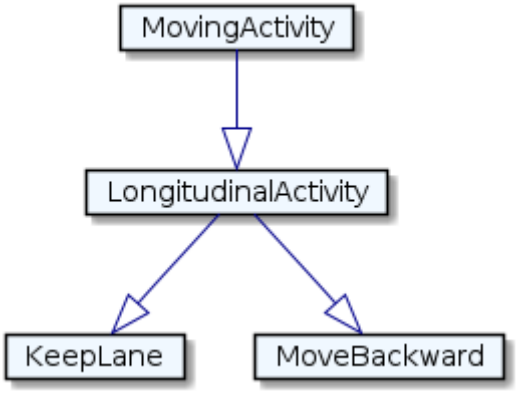
Element	Description
Type	Class
Name	LightRain
IRI	http://ontology.asam.net/ontologies/Domain#LightRain
Subclass of	RainfallCondition
Comments	DEF: LightRain is a RainfallCondition, is it described by the precipitationIntensity property using mm/hr, LightRain is when the precipitationIntensity is < 2.5 mm/hr.

LightSnow



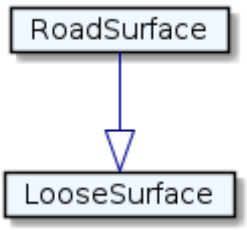
Element	Description
Type	Class
Name	LightSnow
IRI	http://ontology.asam.net/ontologies/Domain#LightSnow
Subclass of	SnowfallCondition
Comments	DEF: LightSnow is a SnowfallCondition, is it described by the SnowfallIntensity property using visibility, LightSnowis is when the SnowfallIntensity is > 1.0 km.

LongitudinalActivity



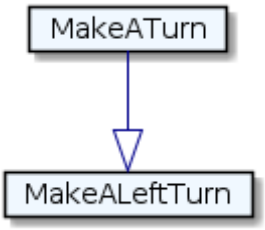
Element	Description
Type	Class
Name	LongitudinalActivity
IRI	http://ontology.asam.net/ontologies/Domain#LongitudinalActivity
Subclass of	MovingActivity
Comments	DEF: A MovingActivity which is characterized by lengthwise movement.

LooseSurface



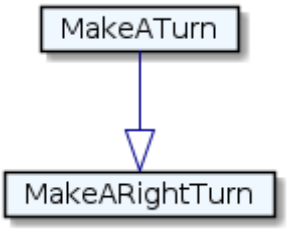
Element	Description
Type	Class
Name	LooseSurface
IRI	http://ontology.asam.net/ontologies/Domain#LooseSurface
Subclass of	RoadSurface
Comments	DEF:LooseSurface is a RoadSurface that contains loose chippings such as loose gravel or stone fragments on a road surface

MakeALeftTurn



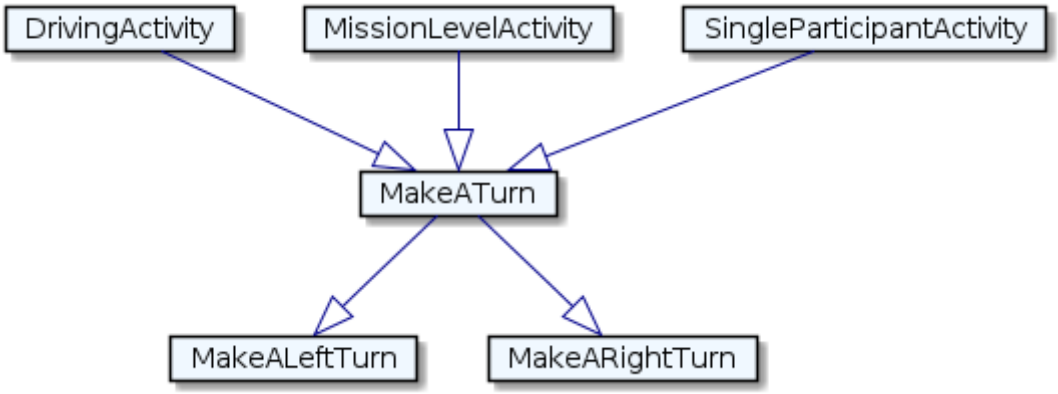
Element	Description
Type	Class
Name	MakeALeftTurn
IRI	http://ontology.asam.net/ontologies/Domain#MakeALeftTurn
Subclass of	MakeATurn
Comments	DEF: A MakeATurn activity during which the subject traffic participant navigates through an intersection and exits the intersection on a road that is located to the left of the orginal road.

MakeARightTurn



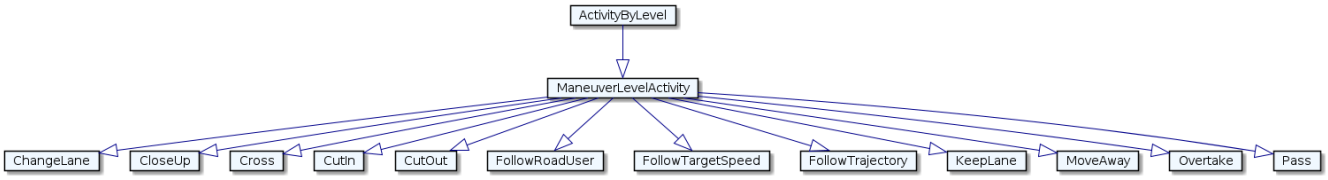
Element	Description
Type	Class
Name	MakeARightTurn
IRI	http://ontology.asam.net/ontologies/Domain#MakeARightTurn
Subclass of	MakeATurn
Comments	DEF: A MakeATurn activity during which the subject traffic participant navigates through an intersection and exits the intersection on a road that is located to the right of the orginal road.

MakeATurn



Element	Description
Type	Class
Name	MakeATurn
IRI	http://ontology.asam.net/ontologies/Domain#MakeATurn
Subclass of	DrivingActivity
Subclass of	MissionLevelActivity
Subclass of	SingleParticipantActivity
Comments	DEF: A MovingActivity at mission level during which the subject traffic participant changes its direction in reference to a traffic infrastructure element, such as an intersection or a road, and has a different direction at the end of the activity.

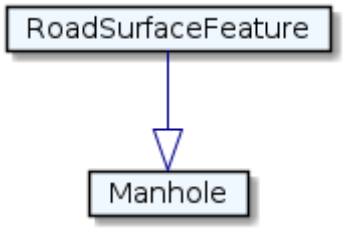
ManeuverLevelActivity



Element	Description
Type	Class
Name	ManeuverLevelActivity
IRI	http://ontology.asam.net/ontologies/Domain#ManeuverLevelActivity
Subclass of	ActivityByLevel

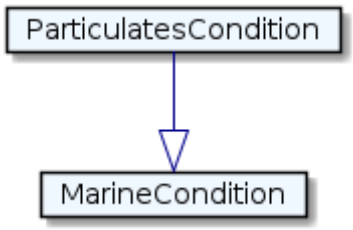
Element	Description
Comments	DEF: A set of activities with actions on maneuver level. This level contains abstract descriptions for the movements of a vehicle. It abstracts the physically continuous vehicle motion into a discrete logical state. This state is only partially observable from the outside. Every driving maneuver is linked to an intention.

Manhole



Element	Description
Type	Class
Name	Manhole
IRI	http://ontology.asam.net/ontologies/Domain#Manhole
Subclass of	RoadSurfaceFeature
Comments	DEF:Manhole is a RoadSurfaceFeature that is an opening in road to access canal system. Has to be big enough to fit a person and includes squared ones.

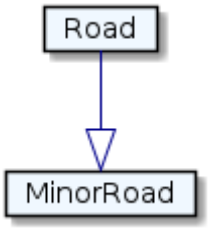
MarineCondition



Element	Description
Type	Class
Name	MarineCondition
IRI	http://ontology.asam.net/ontologies/Domain#MarineCondition
Subclass of	ParticulatesCondition

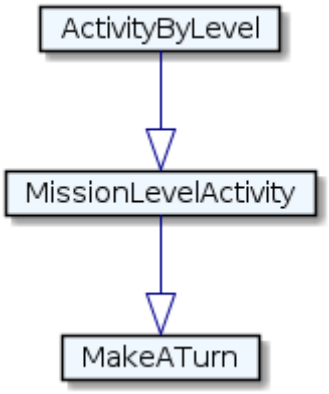
Element	Description
Comments	DEF: An AmbientCondition in an area near the sea where spray from the sea gets mixed into the atmosphere.

MinorRoad



Element	Description
Type	Class
Name	MinorRoad
IRI	http://ontology.asam.net/ontologies/Domain#MinorRoad
Subclass of	Road
Comments	DEF: MinorRoad is a Road that provides access to residential areas and other local developments.

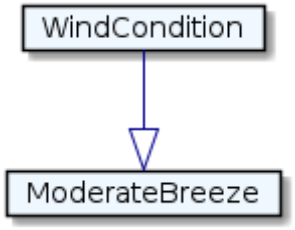
MissionLevelActivity



Element	Description
Type	Class
Name	MissionLevelActivity
IRI	http://ontology.asam.net/ontologies/Domain#MissionLevelActivity
Subclass of	ActivityByLevel

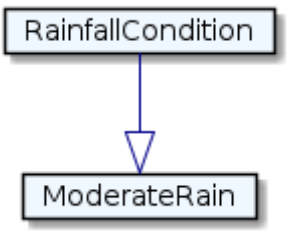
Element	Description
Comments	DEF: MissionLevelActivity is a ActivityByLevel, which structures the vehicle behavior at the level of mission or route planning and serves to achieve a higher-level goal. "Mission elements are abstract task descriptions with no knowledge about how they will be executed by the system."

ModerateBreeze



Element	Description
Type	Class
Name	ModerateBreeze
IRI	http://ontology.asam.net/ontologies/Domain#ModerateBreeze
Subclass of	WindCondition
Comments	DEF: ModerateBreeze is a WindCondition, is it described by the WindSpeed property using m/s, ModerateBreeze is when the WindSpeed is 5.5-7.9 m/s.

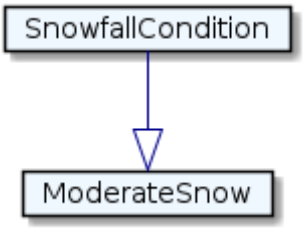
ModerateRain



Element	Description
Type	Class
Name	ModerateRain
IRI	http://ontology.asam.net/ontologies/Domain#ModerateRain
Subclass of	RainfallCondition

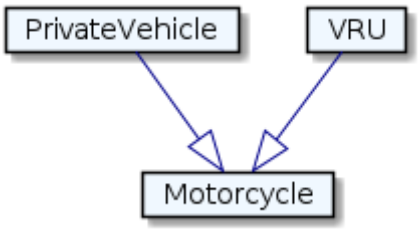
Element	Description
Comments	DEF: ModerateRain is a RainfallCondition, is it described by the precipitationIntensity property using mm/hr, ModerateRain is when the precipitationIntensity is <2.5 - 7.6 mm/hr.

ModerateSnow



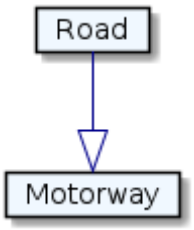
Element	Description
Type	Class
Name	ModerateSnow
IRI	http://ontology.asam.net/ontologies/Domain#ModerateSnow
Subclass of	SnowfallCondition
Comments	DEF: ModerateSnow is a SnowfallCondition, is it described by the SnowfallIntensity property using visibility, ModerateSnow is when the SnowfallIntensity is 0.5 - 1.0 km.

Motorcycle



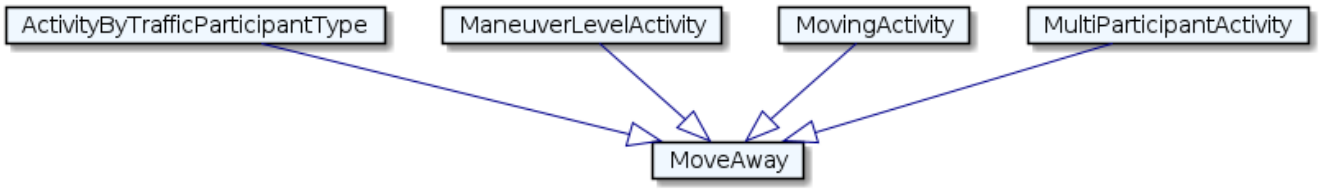
Element	Description
Type	Class
Name	Motorcycle
IRI	http://ontology.asam.net/ontologies/Domain#Motorcycle
Subclass of	PrivateVehicle
Subclass of	VRU
Comments	DEF: A motor-powered Vehicle, also called motorbike or bike, that has two or three wheels and is used for transporting people.

Motorway



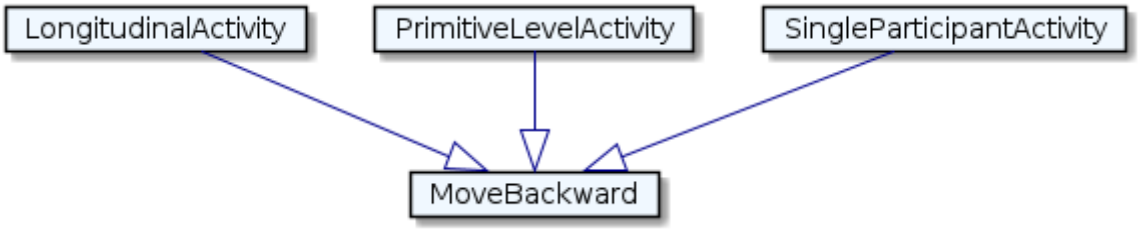
Element	Description
Type	Class
Name	Motorway
IRI	http://ontology.asam.net/ontologies/Domain#Motorway
Subclass of	Road
Comments	DEF: A Road that is designed for high speed and high traffic volume and has controlled entries and exits. Non-motorized vehicles and pedestrians are prohibited on motorways.

MoveAway



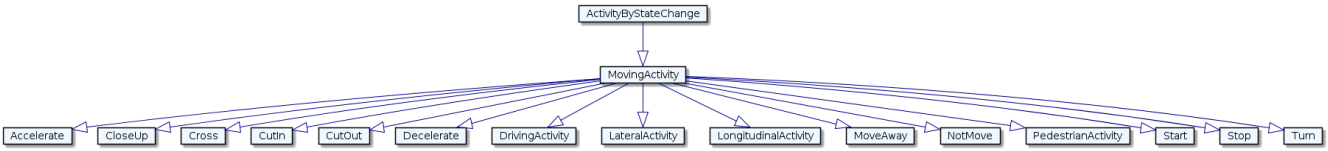
Element	Description
Type	Class
Name	MoveAway
IRI	http://ontology.asam.net/ontologies/Domain#MoveAway
Subclass of	ActivityByTrafficParticipantType
Subclass of	ManeuverLevelActivity
Subclass of	MovingActivity
Subclass of	MultiParticipantActivity
Comments	DEF: A MovingActivity with moving traffic participants in which the subject traffic participant moves away from the object traffic participant.

MoveBackward



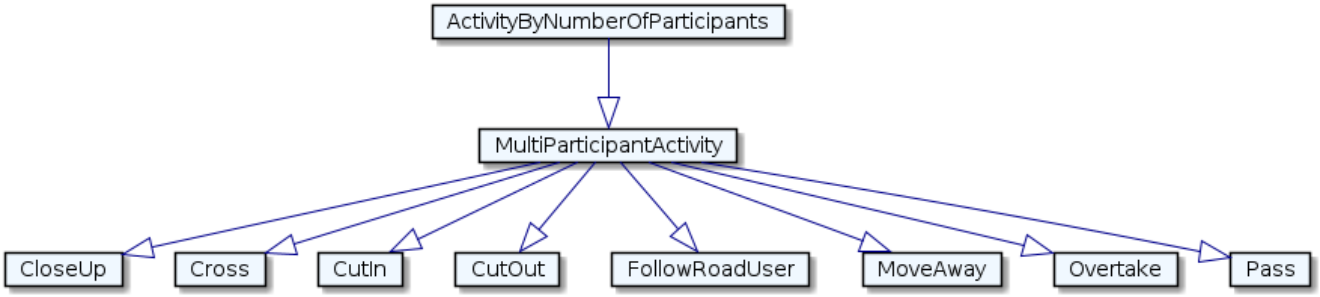
Element	Description
Type	Class
Name	MoveBackward
IRI	http://ontology.asam.net/ontologies/Domain#MoveBackward
Subclass of	LongitudinalActivity
Subclass of	PrimitiveLevelActivity
Subclass of	SingleParticipantActivity
Comments	DEF: An Activity with one traffic participant in which the traffic participant moves into the direction that is opposite to the original one without changing its orientation.

MovingActivity



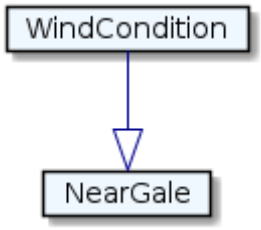
Element	Description
Type	Class
Name	MovingActivity
IRI	http://ontology.asam.net/ontologies/Domain#MovingActivity
Subclass of	ActivityByStateChange
Comments	DEF: A set of activities which result in a changed location of the subject traffic participant.

MultiParticipantActivity



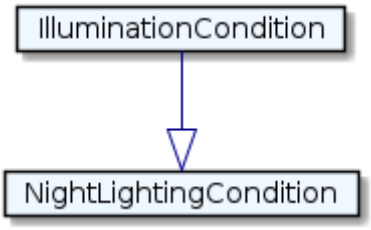
Element	Description
Type	Class
Name	MultiParticipantActivity
IRI	http://ontology.asam.net/ontologies/Domain#MultiParticipantActivity
Subclass of	ActivityByNumberOfParticipants
Comments	DEF: A set of activities which involve more than one traffic participant.

NearGale



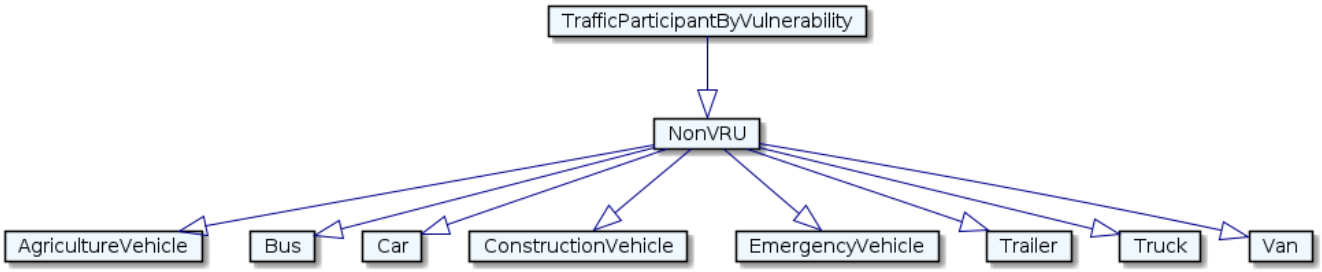
Element	Description
Type	Class
Name	NearGale
IRI	http://ontology.asam.net/ontologies/Domain#NearGale
Subclass of	WindCondition
Comments	DEF: NearGale is a WindCondition, is it described by the WindSpeed property using m/s, NearGale is when the WindSpeed is 17.2-20.7 m/s.

NightLightingCondition



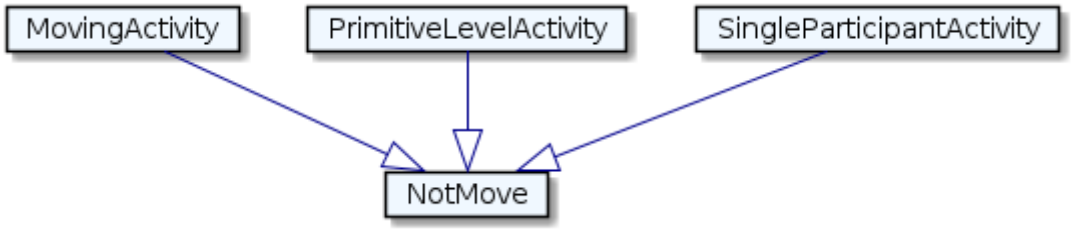
Element	Description
Type	Class
Name	NightLightingCondition
IRI	http://ontology.asam.net/ontologies/Domain#NightLightingCondition
Subclass of	IlluminationCondition
Comments	DEF: An IlluminationCondition where illuminance is below 1 lux.

NonVRU



Element	Description
Type	Class
Name	NonVRU
IRI	http://ontology.asam.net/ontologies/Domain#NonVRU
Subclass of	TrafficParticipantByVulnerability
Comments	DEF: A set of non-vulnerable road users.

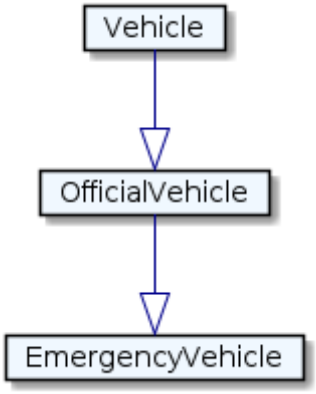
NotMove



Element	Description
Type	Class
Name	NotMove
IRI	http://ontology.asam.net/ontologies/Domain#NotMove
Subclass of	MovingActivity
Subclass of	PrimitiveLevelActivity

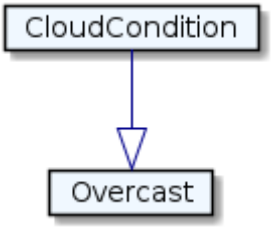
Element	Description
Subclass of	SingleParticipantActivity
Comments	DEF: An Activity during which the traffic participant has a speed of zero.

OfficialVehicle



Element	Description
Type	Class
Name	OfficialVehicle
IRI	http://ontology.asam.net/ontologies/Domain#OfficialVehicle
Subclass of	Vehicle
Comments	DEF: Official vehicles are vehicles with special access and operational authorities, such as ambulance, police vehicle

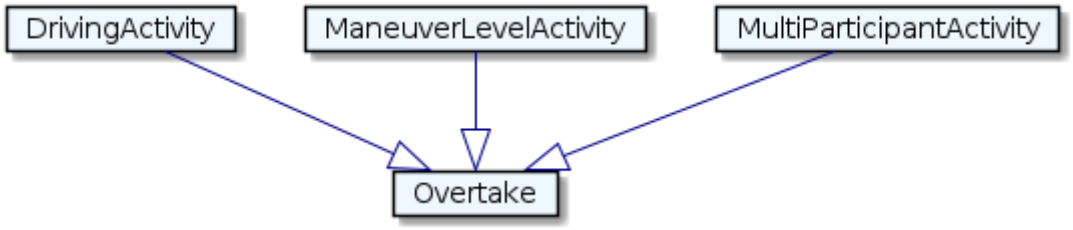
Overcast



Element	Description
Type	Class
Name	Overcast
IRI	http://ontology.asam.net/ontologies/Domain#Overcast
Subclass of	CloudCondition

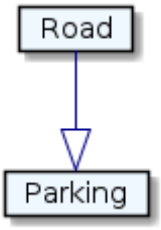
Element	Description
Comments	DEF: Overcast is a CloudCondition, is it described by the cloudinessLevel property using oktas unit, Overcast is when the cloudinessLevel is 8 oktas.

Overtake



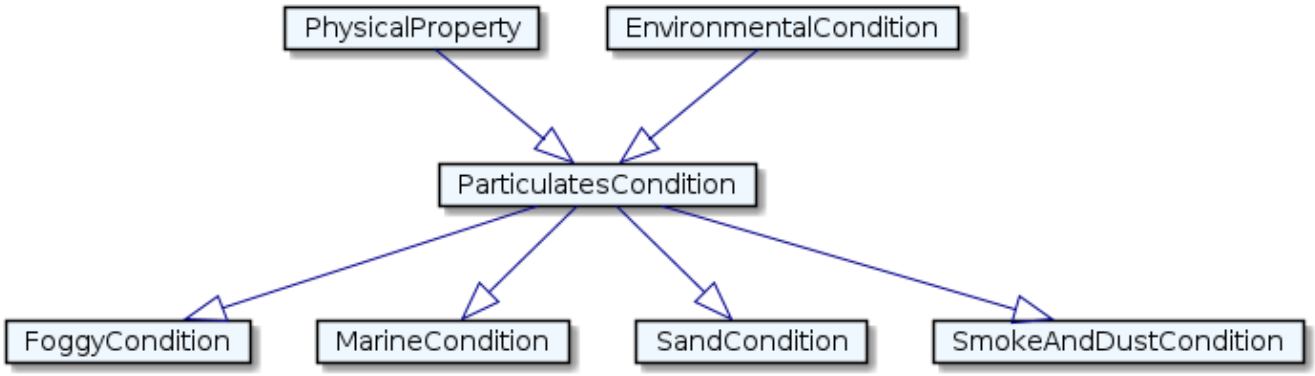
Element	Description
Type	Class
Name	Overtake
IRI	http://ontology.asam.net/ontologies/Domain#Overtake
Subclass of	DrivingActivity
Subclass of	ManeuverLevelActivity
Subclass of	MultiParticipantActivity
Comments	DEF: An activity in which the subject traffic participant starts behind the object traffic participant and ends up in front of the object traffic participant. The subject changes lanes two time during the activity.

Parking



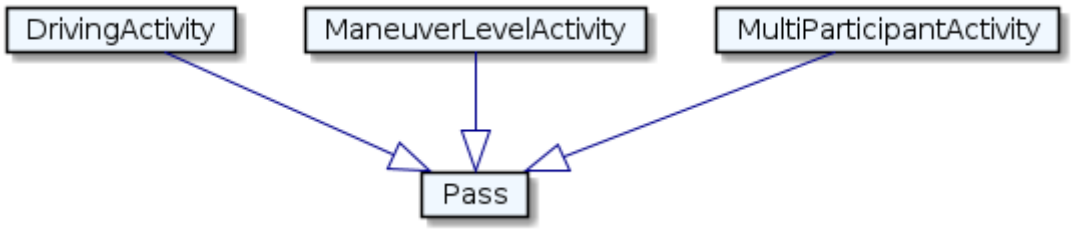
Element	Description
Type	Class
Name	Parking
IRI	http://ontology.asam.net/ontologies/Domain#Parking
Subclass of	Road
Comments	DEF: A Road where vehicles are allowed to park.

ParticulatesCondition



Element	Description
Type	Class
Name	ParticulatesCondition
IRI	http://ontology.asam.net/ontologies/Domain#ParticulatesCondition
Subclass of	PhysicalProperty
Subclass of	EnvironmentalCondition
Comments	DEF: An EnvironmentalCondition where particles in the atmosphere lead to a limited visibility or obscuration of things. Particulates can be of different materials, for example water or sand.

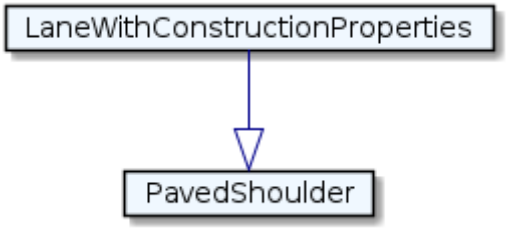
Pass



Element	Description
Type	Class
Name	Pass
IRI	http://ontology.asam.net/ontologies/Domain#Pass
Subclass of	DrivingActivity
Subclass of	ManeuverLevelActivity
Subclass of	MultiParticipantActivity

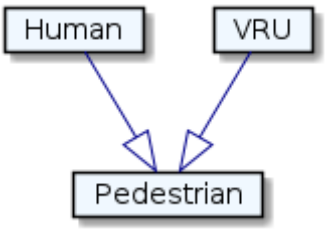
Element	Description
Comments	DEF: An activity in which the subject traffic participant is located in a lane adjacent to the lane in which the object traffic participant drives. The subject starts behind the object and is position ahead of the object at the end of the activity. The subject does not change lanes.

PavedShoulder



Element	Description
Type	Class
Name	PavedShoulder
IRI	http://ontology.asam.net/ontologies/Domain#PavedShoulder
Subclass of	LaneWithConstructionProperties
Comments	DEF: PavedShoulder is a LanesWithConstructionProperties that is an emergency stopping lane by the verge of a road or motorway. Hence, a shoulder, where the surface of a lane is paved is called paved shoulder

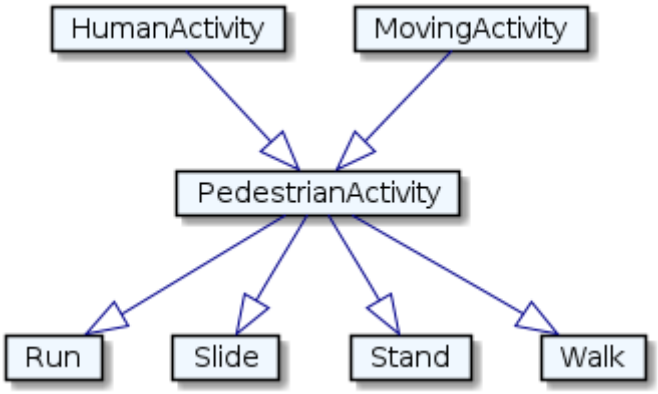
Pedestrian



Element	Description
Type	Class
Name	Pedestrian
IRI	http://ontology.asam.net/ontologies/Domain#Pedestrian
Subclass of	Human
Subclass of	VRU

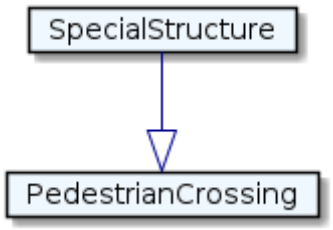
Element	Description
Comments	DEF: A HumanParticipant who moves in traffic on foot.

PedestrianActivity



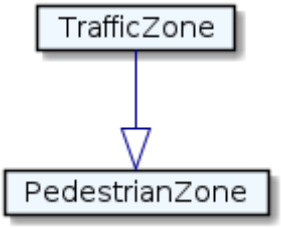
Element	Description
Type	Class
Name	PedestrianActivity
IRI	http://ontology.asam.net/ontologies/Domain#PedestrianActivity
Subclass of	HumanActivity
Subclass of	MovingActivity
Comments	DEF: A set of activities performed by pedestrians.

PedestrianCrossing



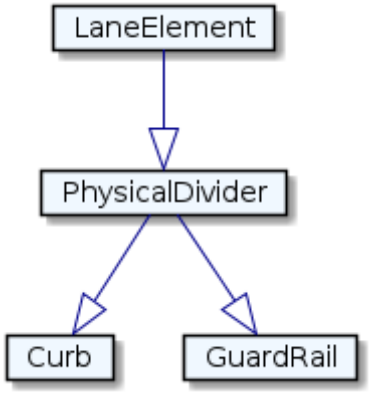
Element	Description
Type	Class
Name	PedestrianCrossing
IRI	http://ontology.asam.net/ontologies/Domain#PedestrianCrossing
Subclass of	SpecialStructure
Comments	DEF: A SpecialStructure that creates a place or area where pedestrians are able to cross a road or lane.

PedestrianZone



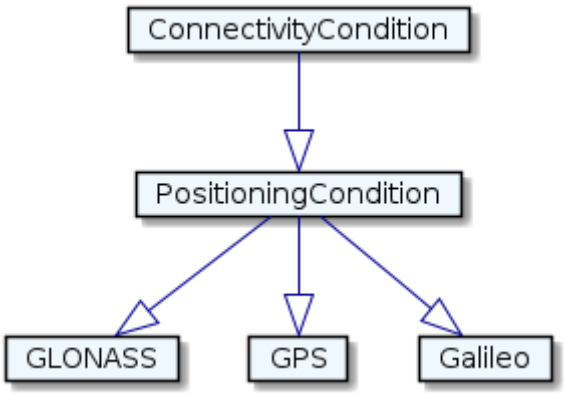
Element	Description
Type	Class
Name	PedestrianZone
IRI	http://ontology.asam.net/ontologies/Domain#PedestrianZone
Subclass of	TrafficZone
Comments	DEF: A Zone where only pedestrians are allowed.

PhysicalDivider



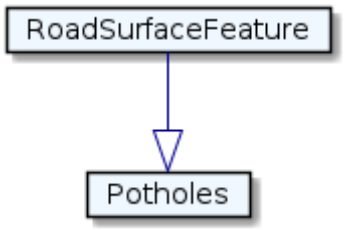
Element	Description
Type	Class
Name	PhysicalDivider
IRI	http://ontology.asam.net/ontologies/Domain#PhysicalDivider
Subclass of	LaneElement
Comments	DEF: PhysicalDivider is a LaneDivider that is a description of a way which has a physical or legal divider that divides opposing direction lanes and prevents crossing the way in a particular direction. In right side driving countries left turns and u-turns are not allowed, in left side driving countries right turns and u-turns are not allowed.

PositioningCondition



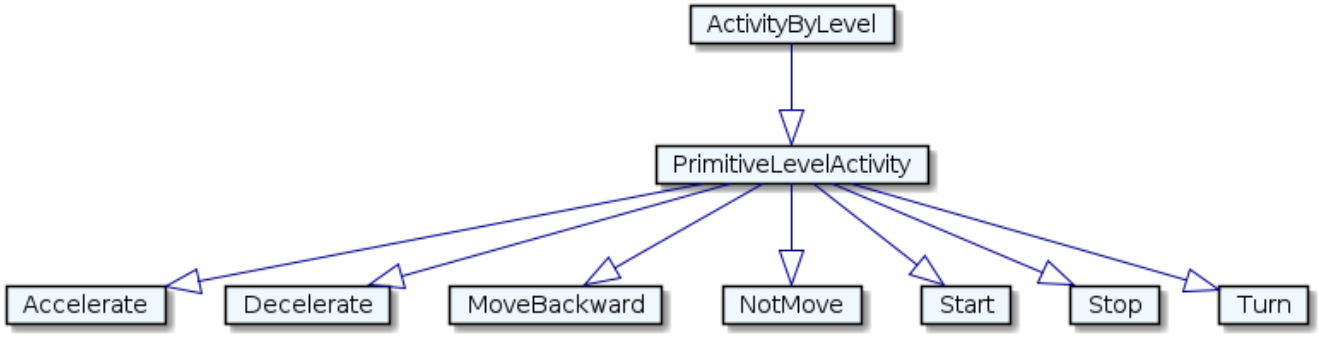
Element	Description
Type	Class
Name	PositioningCondition
IRI	http://ontology.asam.net/ontologies/Domain#PositioningCondition
Subclass of	ConnectivityCondition
Comments	DEF: A ConnectivityCondition that specifies the system or mechanism used by a vehicle to determine its position. Examples: GPS and GLONASS.

Potholes



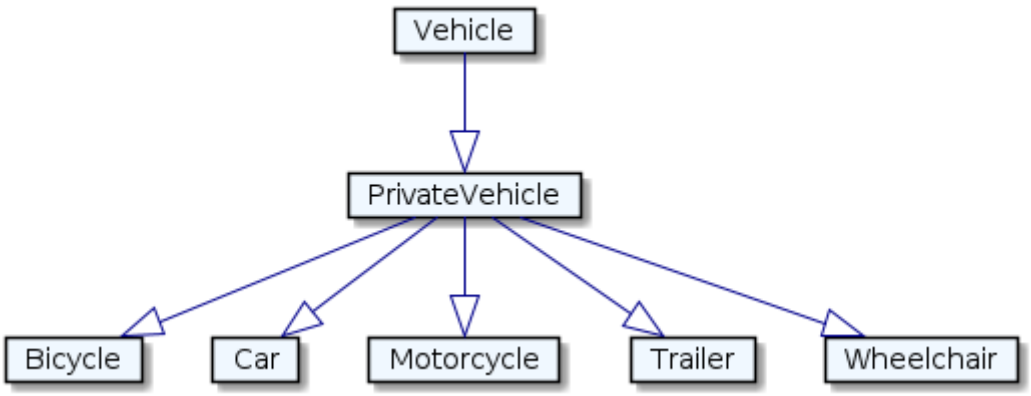
Element	Description
Type	Class
Name	Potholes
IRI	http://ontology.asam.net/ontologies/Domain#Potholes
Subclass of	RoadSurfaceFeature
Comments	DEF:Potholes is a RoadSurfaceFeature that is a depression in a road surface, usually asphalt pavement, where traffic has removed broken pieces of the pavement. It is usually the result of water in the underlying soil structure and traffic passing over the affected area

PrimitiveLevelActivity



Element	Description
Type	Class
Name	PrimitiveLevelActivity
IRI	http://ontology.asam.net/ontologies/Domain#PrimitiveLevelActivity
Subclass of	ActivityByLevel
Comments	DEF: A set of activities that describe the course of state variables through which a maneuver is to be implemented. While a maneuver is often defined relative to the traffic infrastructure, a motion primitive is defined in the vehicle coordinate system. A motion primitive can be a yaw rate, an acceleration or a deceleration.

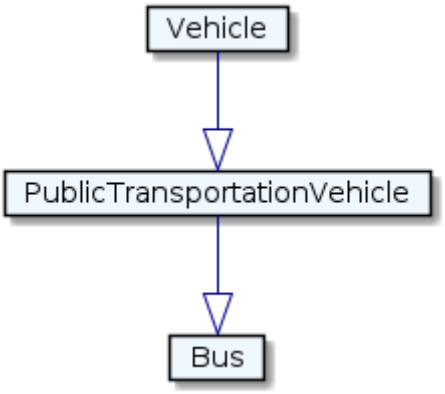
PrivateVehicle



Element	Description
Type	Class
Name	PrivateVehicle
IRI	http://ontology.asam.net/ontologies/Domain#PrivateVehicle
Subclass of	Vehicle

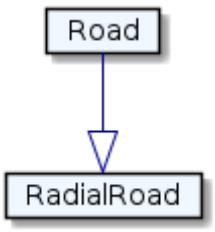
Element	Description
Comments	DEF: Private vehicles are vehicles owned and used by private individuals.

PublicTransportationVehicle



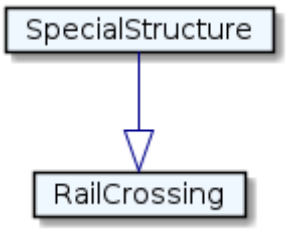
Element	Description
Type	Class
Name	PublicTransportationVehicle
IRI	http://ontology.asam.net/ontologies/Domain#PublicTransportationVehicle
Subclass of	Vehicle
Comments	DEF: Public transporation vehicles are vehicles operated to transport individuals from the public.

RadialRoad



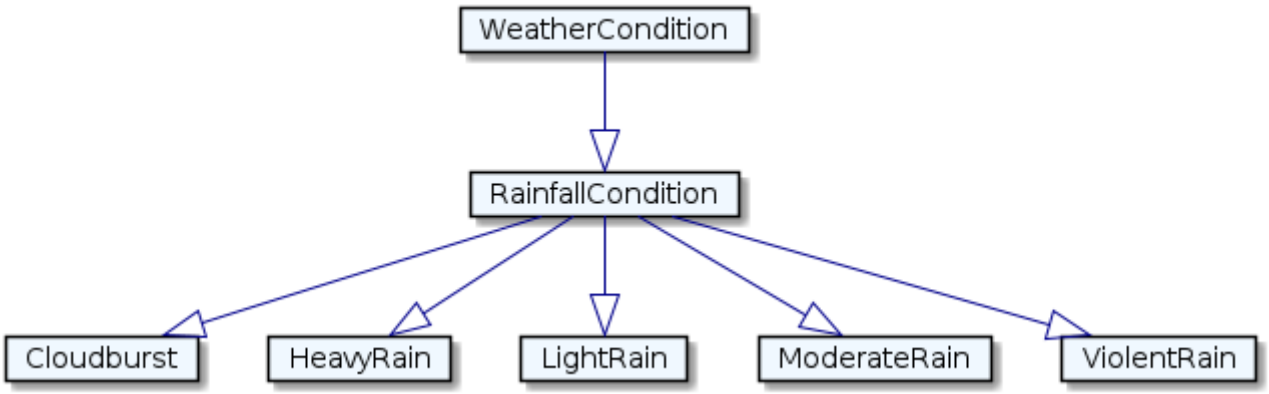
Element	Description
Type	Class
Name	RadialRoad
IRI	http://ontology.asam.net/ontologies/Domain#RadialRoad
Subclass of	Road
Comments	DEF: A Road for high-density traffic that connects motorways to distributor roads or city centers.

RailCrossing



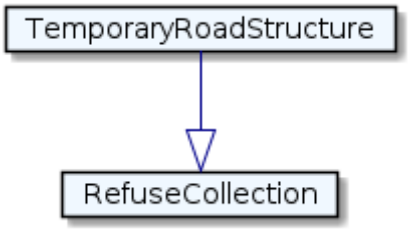
Element	Description
Type	Class
Name	RailCrossing
IRI	http://ontology.asam.net/ontologies/Domain#RailCrossing
Subclass of	SpecialStructure
Comments	DEF: A SpecialStructure that is an intersection between a road and a railway track.

RainfallCondition



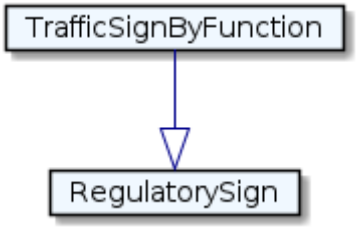
Element	Description
Type	Class
Name	RainfallCondition
IRI	http://ontology.asam.net/ontologies/Domain#RainfallCondition
Subclass of	WeatherCondition
Comments	DEF: A WeatherCondition where it is raining. The intensity of the rainfall may be described using the precipitationIntensity property.

RefuseCollection



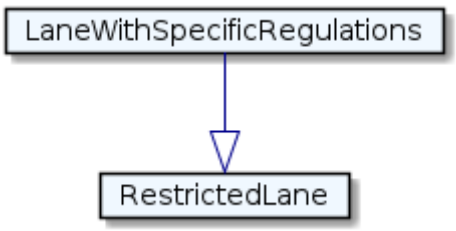
Element	Description
Type	Class
Name	RefuseCollection
IRI	http://ontology.asam.net/ontologies/Domain#RefuseCollection
Subclass of	TemporaryRoadStructure
Comments	DEF: A TemporaryRoadStructure that contains rubbish or waste that has not been disposed yet.

RegulatorySign



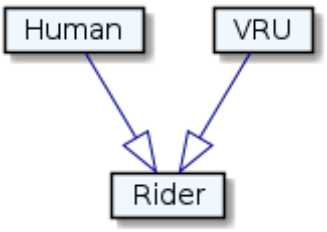
Element	Description
Type	Class
Name	RegulatorySign
IRI	http://ontology.asam.net/ontologies/Domain#RegulatorySign
Subclass of	TrafficSignByFunction
Comments	DEF: A traffic sign that indicates rules, restrictions, and prohibitions for all or specific traffic participants.

RestrictedLane



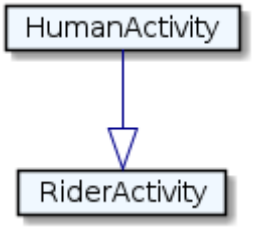
Element	Description
Type	Class
Name	RestrictedLane
IRI	http://ontology.asam.net/ontologies/Domain#RestrictedLane
Subclass of	LaneWithSpecificRegulations
Comments	DEF: RestrictedLane is a LaneWithSpecificRegulations that can have restrictions towards time, traffic participant type etc. For example, when two lanes split there is an area, where driving is forbidden.

Rider



Element	Description
Type	Class
Name	Rider
IRI	http://ontology.asam.net/ontologies/Domain#Rider
Subclass of	Human
Subclass of	VRU
Comments	DEF: A type of VRU which consists of a human rider and the transporting vehicle the rider is controlling, examples of such vehicles can be animal, bicycle, motorcycle, etc.

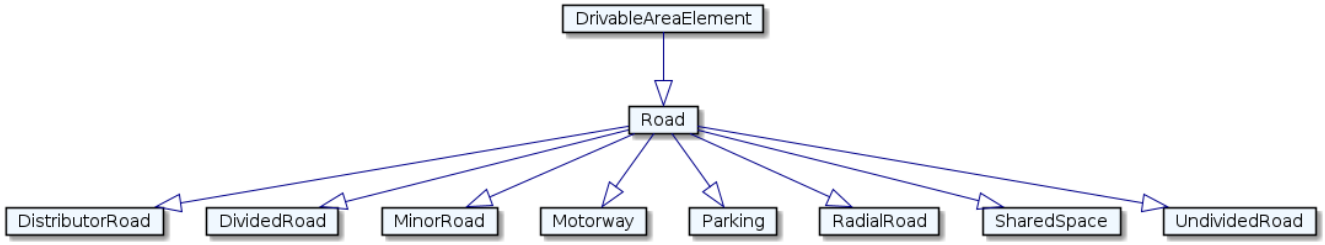
RiderActivity



Element	Description
Type	Class

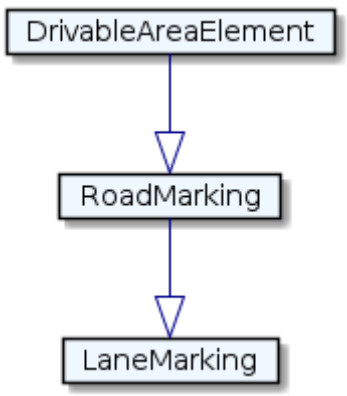
Element	Description
Name	RiderActivity
IRI	http://ontology.asam.net/ontologies/Domain#RiderActivity
Subclass of	HumanActivity
Comments	DEF: A BiologicalObjectActivity where the participant is a bicyclist or motorcyclist.

Road



Element	Description
Type	Class
Name	Road
IRI	http://ontology.asam.net/ontologies/Domain#Road
Subclass of	DrivableAreaElement
Comments	DEF: A DriveableArea that is a long stretch with a smooth or paved surface leading from one place to another. Made to be used by traffic participants.

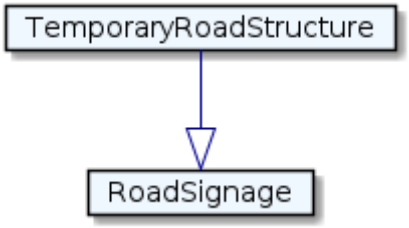
RoadMarking



Element	Description
Type	Class
Name	RoadMarking

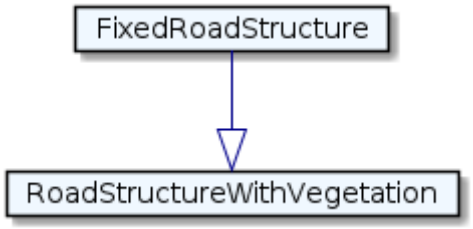
Element	Description
IRI	http://ontology.asam.net/ontologies/Domain#RoadMarking
Subclass of	DrivableAreaElement
Comments	DEF: A DriveableArea on a road surface that may consist of lines or other symbols and that conveys regulatory information about traffic rules.

RoadSignage



Element	Description
Type	Class
Name	RoadSignage
IRI	http://ontology.asam.net/ontologies/Domain#RoadSignage
Subclass of	TemporaryRoadStructure
Comments	DEF: A TemporaryRoadStructure that are signs or symbols on the road and that provide information about temporary changes to traffic routes, about road closures, construction works, detours, etc.

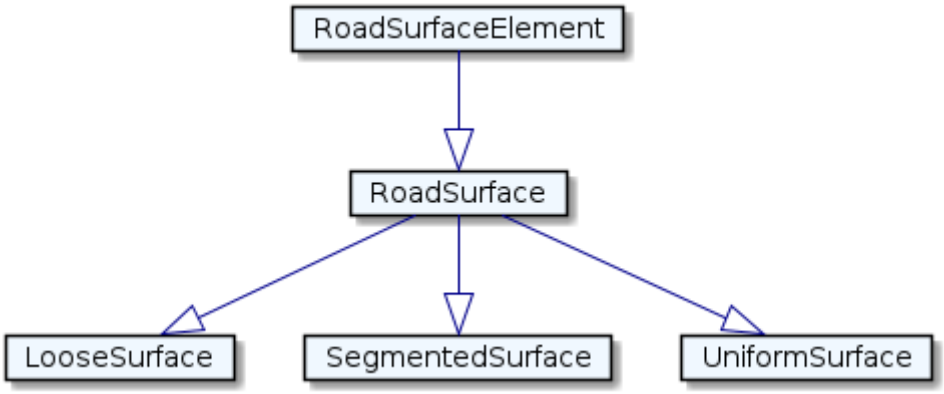
RoadStructureWithVegetation



Element	Description
Type	Class
Name	RoadStructureWithVegetation
IRI	http://ontology.asam.net/ontologies/Domain#RoadStructureWithVegetation
Subclass of	FixedRoadStructure

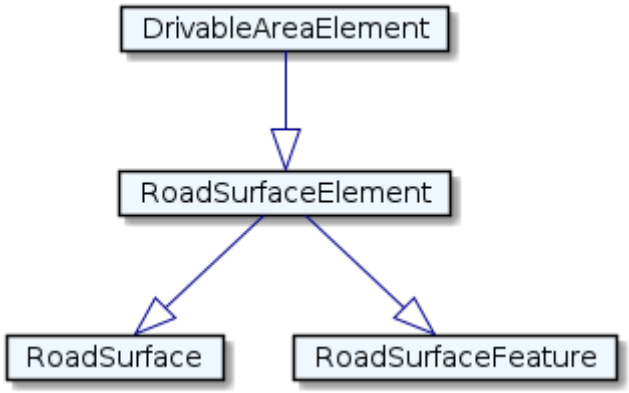
Element	Description
Comments	DEF: A FixedRoadStructure that consist of a several plants and the ground they cover.

RoadSurface



Element	Description
Type	Class
Name	RoadSurface
IRI	http://ontology.asam.net/ontologies/Domain#RoadSurface
Subclass of	RoadSurfaceElement
Comments	DEF:RoadSurface is a RoadSurfaceElement, which classify the road surface into different types based on characteristics of the surface material, for example segmented, uniform and loose.

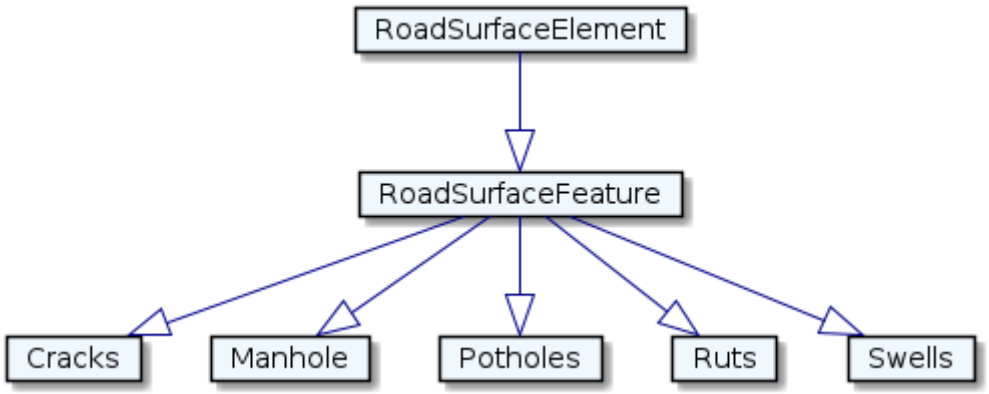
RoadSurfaceElement



Element	Description
Type	Class
Name	RoadSurfaceElement

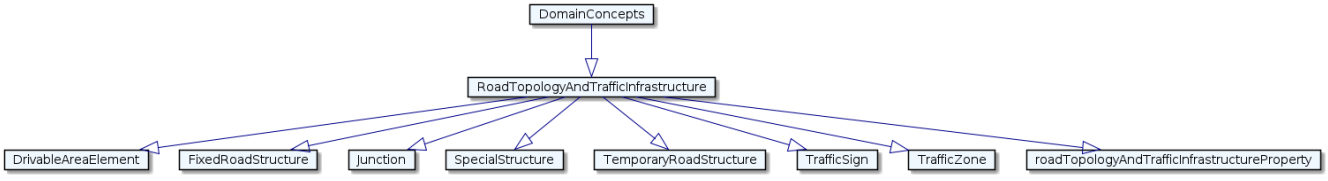
Element	Description
IRI	http://ontology.asam.net/ontologies/Domain#RoadSurfaceElement
Subclass of	DrivableAreaElement
Comments	DEF: A DrivableArea on a road or sidewalk that is characterized by a specific surface, material, or coating.

RoadSurfaceFeature



Element	Description
Type	Class
Name	RoadSurfaceFeature
IRI	http://ontology.asam.net/ontologies/Domain#RoadSurfaceFeature
Subclass of	RoadSurfaceElement
Comments	DEF: RoadSurfaceFeature is a RoadSurfaceElements. Drivable area surface features shall include damage caused by traffic and weather. Any road damage (and the resulting different surface features) shall be classified into cracks, potholes, ruts or swells.

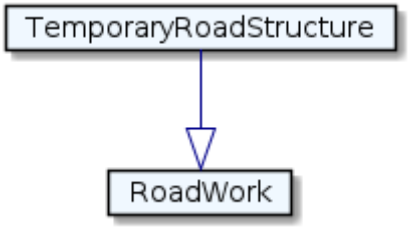
RoadTopologyAndTrafficInfrastructure



Element	Description
Type	Class
Name	RoadTopologyAndTrafficInfrastructure

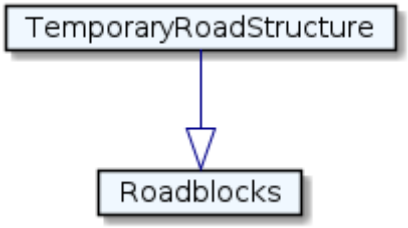
Element	Description
IRI	http://ontology.asam.net/ontologies/Domain#RoadTopologyAndTrafficInfrastructure
Subclass of	DomainConcepts
Comments	DEF: A set of features for describing the logical road network, traffic infrastructure elements, and related conditions.

RoadWork



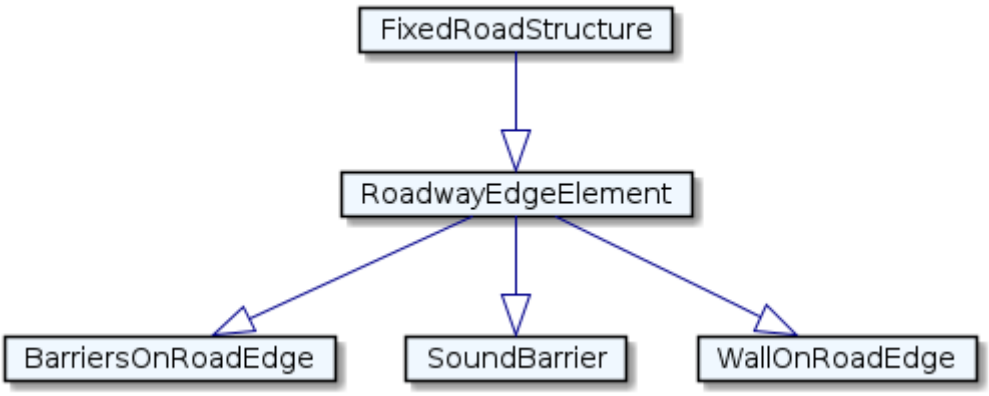
Element	Description
Type	Class
Name	RoadWork
IRI	http://ontology.asam.net/ontologies/Domain#RoadWork
Subclass of	TemporaryRoadStructure
Comments	DEF: A TemporaryRoadStructure that is the part of a road under construction. As a result, the road layout may change.

Roadblocks



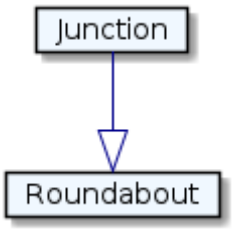
Element	Description
Type	Class
Name	Roadblocks
IRI	http://ontology.asam.net/ontologies/Domain#Roadblocks
Subclass of	TemporaryRoadStructure
Comments	DEF: A TemporaryRoadStructure that is set up to block or control traffic along a road.

RoadwayEdgeElement



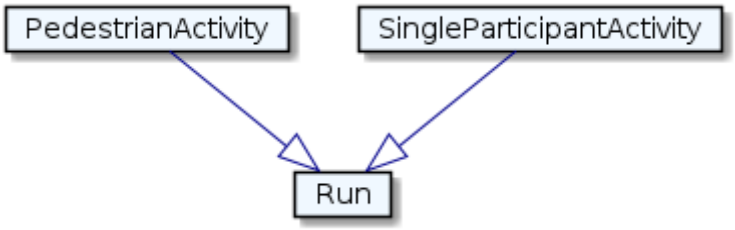
Element	Description
Type	Class
Name	RoadwayEdgeElement
IRI	http://ontology.asam.net/ontologies/Domain#RoadwayEdgeElement
Subclass of	FixedRoadStructure
Comments	DEF: A FixedRoadStructure that forms the side boundary of a road.

Roundabout



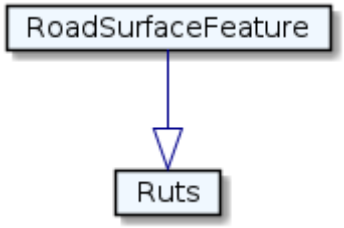
Element	Description
Type	Class
Name	Roundabout
IRI	http://ontology.asam.net/ontologies/Domain#Roundabout
Subclass of	Junction
Comments	DEF: An Intersection where traffic moves into one direction in a circular shape around a central island to reach one of the roads leading into or out of the traffic circle. Roundabouts may have traffic signals.

Run



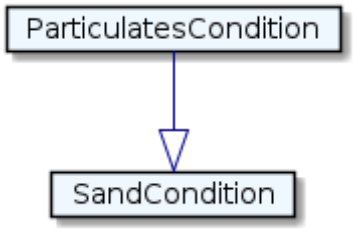
Element	Description
Type	Class
Name	Run
IRI	http://ontology.asam.net/ontologies/Domain#Run
Subclass of	PedestrianActivity
Subclass of	SingleParticipantActivity
Comments	DEF: A PedestrianActivity where the biological object moves in such a way that at a specific point in time no foot touches the ground.

Ruts



Element	Description
Type	Class
Name	Ruts
IRI	http://ontology.asam.net/ontologies/Domain#Ruts
Subclass of	RoadSurfaceFeature

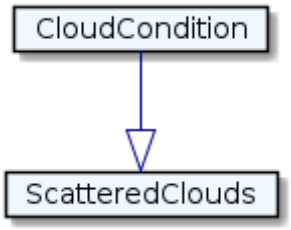
SandCondition



Element	Description
Type	Class

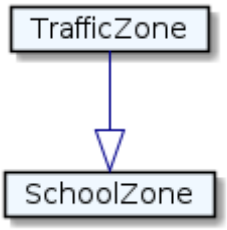
Element	Description
Name	SandCondition
IRI	http://ontology.asam.net/ontologies/Domain#SandCondition
Subclass of	ParticulatesCondition
Comments	DEF: A ParticulateCondition where the particles consist of sand or dust.

ScatteredClouds



Element	Description
Type	Class
Name	ScatteredClouds
IRI	http://ontology.asam.net/ontologies/Domain#ScatteredClouds
Subclass of	CloudCondition
Comments	DEF: ScatteredClouds is a CloudCondition, is it described by the cloudinessLevel property using oktas unit, ScatteredClouds is when the cloudinessLevel is 3-4 oktas.

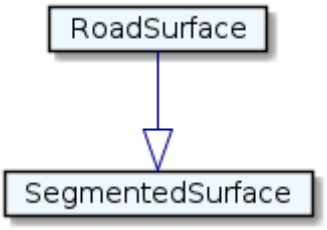
SchoolZone



Element	Description
Type	Class
Name	SchoolZone
IRI	http://ontology.asam.net/ontologies/Domain#SchoolZone
Subclass of	TrafficZone

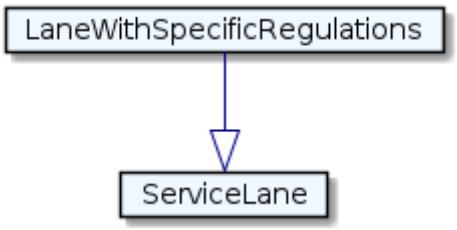
Element	Description
Comments	DEF: A Zone that is a road section near a school or near a crosswalk used by students. It is likely that younger pedestrians are present in this area.

SegmentedSurface



Element	Description
Type	Class
Name	SegmentedSurface
IRI	http://ontology.asam.net/ontologies/Domain#SegmentedSurface
Subclass of	RoadSurface
Comments	DEF:SegmentedSurface is a RoadSurface that consists of individual segments of certain type of surface material. An example of a segmented road surface could contain segments of concrete panels to form the surface.

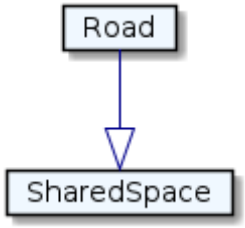
ServiceLane



Element	Description
Type	Class
Name	ServiceLane
IRI	http://ontology.asam.net/ontologies/Domain#ServiceLane
Subclass of	LaneWithSpecificRegulations

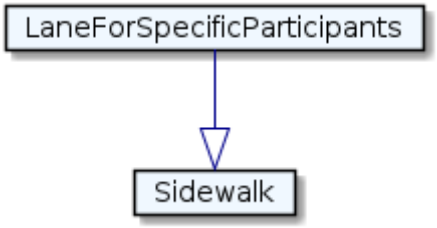
Element	Description
Comments	DEF: ServiceLane is a LaneWithSpecificRegulations that which offer enough space for a car to drive and stop in emergency cases - typically on highways. Usually on the right side of drivable lanes, but can also be on the left side.

SharedSpace



Element	Description
Type	Class
Name	SharedSpace
IRI	http://ontology.asam.net/ontologies/Domain#SharedSpace
Subclass of	Road
Comments	DEF: A Road that may be used equally by vehicles and pedestrians. Shared spaces are designed to minimize the segregation between traffic participants.This is done by reducing traffic management features that tend to encourge users of vehicles to assume priority, such as curbs and lane markings.

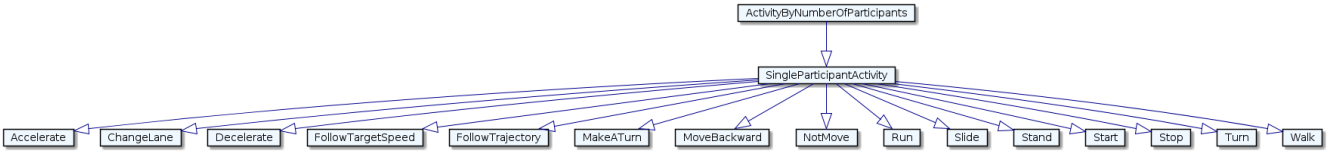
Sidewalk



Element	Description
Type	Class
Name	Sidewalk
IRI	http://ontology.asam.net/ontologies/Domain#Sidewalk
Subclass of	LaneForSpecificParticipants

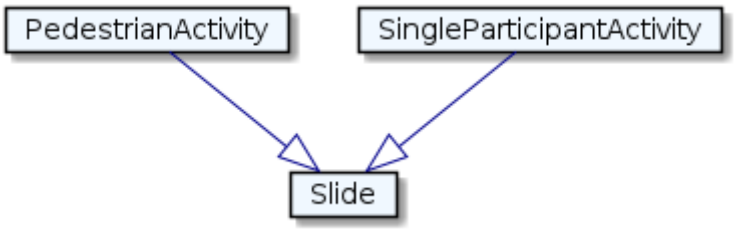
Element	Description
Comments	DEF: Sidewalk is a LaneForSpecificParticipants that is designated for pedestrians or cyclist. Delimited from the road by some obstacles or poles, but not only by marking. Often elevated compared to the road and often located at the side of a road. Also includes walkable parts of traffic islands, but not pedestrian areas.

SingleParticipantActivity



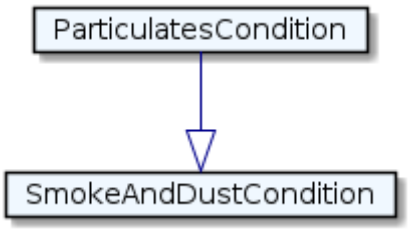
Element	Description
Type	Class
Name	SingleParticipantActivity
IRI	http://ontology.asam.net/ontologies/Domain#SingleParticipantActivity
Subclass of	ActivityByNumberOfParticipants
Comments	DEF: A set of activities which involve exactly one traffic participant.

Slide



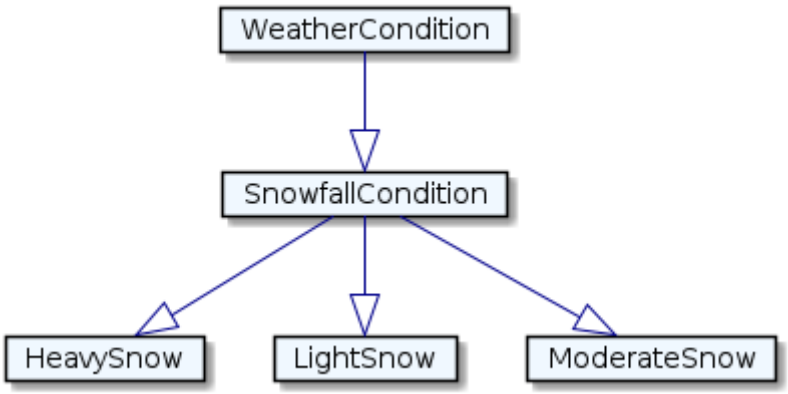
Element	Description
Type	Class
Name	Slide
IRI	http://ontology.asam.net/ontologies/Domain#Slide
Subclass of	PedestrianActivity
Subclass of	SingleParticipantActivity
Comments	DEF: A PedestrianActivity where the biological object moves in such a way that the feet always touch the ground.

SmokeAndDustCondition



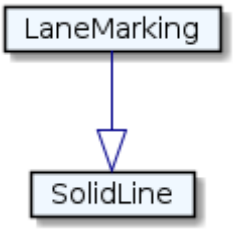
Element	Description
Type	Class
Name	SmokeAndDustCondition
IRI	http://ontology.asam.net/ontologies/Domain#SmokeAndDustCondition
Subclass of	ParticulatesCondition
Comments	DEF: A ParticulateCondition where the particles consist of smoke or pollution.

SnowfallCondition



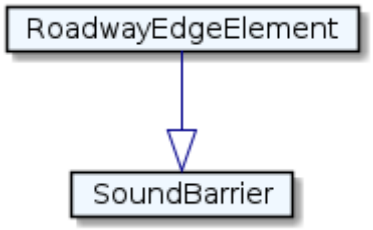
Element	Description
Type	Class
Name	SnowfallCondition
IRI	http://ontology.asam.net/ontologies/Domain#SnowfallCondition
Subclass of	WeatherCondition
Comments	DEF: A WeatherCondition where it snows. The intensity of the snowfall may be described by the SnowfallIntensity property.

SolidLine



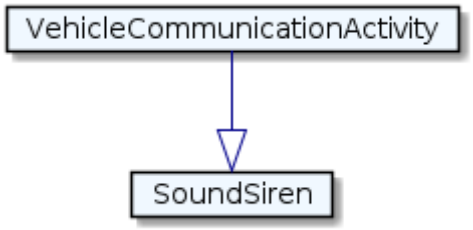
Element	Description
Type	Class
Name	SolidLine
IRI	http://ontology.asam.net/ontologies/Domain#SolidLine
Subclass of	LaneMarking
Comments	DEF: SolidLine is a LaneMarking that is drawn on a two-way road and it indicates that traffic participants cannot overtake the vehicle ahead, or are not allowed to change the lanes.

SoundBarrier



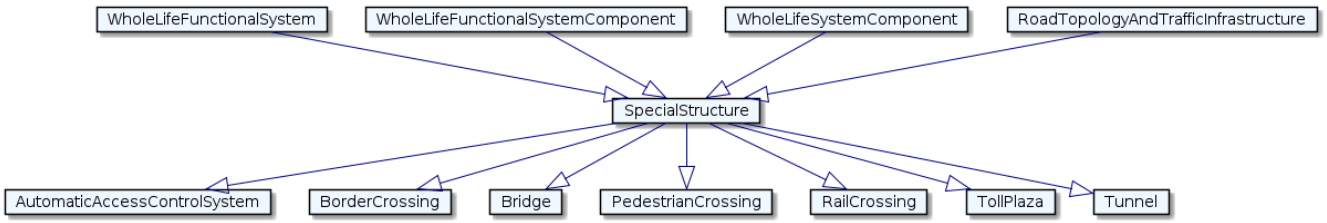
Element	Description
Type	Class
Name	SoundBarrier
IRI	http://ontology.asam.net/ontologies/Domain#SoundBarrier
Subclass of	RoadwayEdgeElement
Comments	DEF: A RoadwayEdgeElement that is an built structure designed to protect people in residential areas from noise pollution. Sound barriers are usually high walls next to roads.

SoundSiren



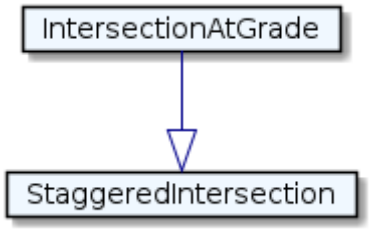
Element	Description
Type	Class
Name	SoundSiren
IRI	http://ontology.asam.net/ontologies/Domain#SoundSiren
Subclass of	VehicleCommunicationActivity
Comments	DEF: A VehicleCommunicatingActivity of an emergency vehicle that uses its siren to alert other traffic participants.

SpecialStructure



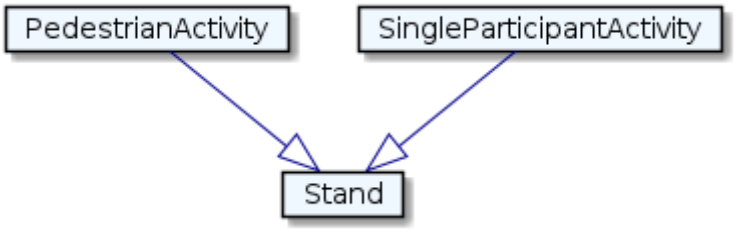
Element	Description
Type	Class
Name	SpecialStructure
IRI	http://ontology.asam.net/ontologies/Domain#SpecialStructure
Subclass of	WholeLifeFunctionalSystem
Subclass of	WholeLifeFunctionalSystemComponent
Subclass of	WholeLifeSystemComponent
Subclass of	RoadTopologyAndTrafficInfrastructure
Comments	DEF: A set of traffic infrastructure types that are installed on road or junctions and on/through which cars can travel.

StaggeredIntersection



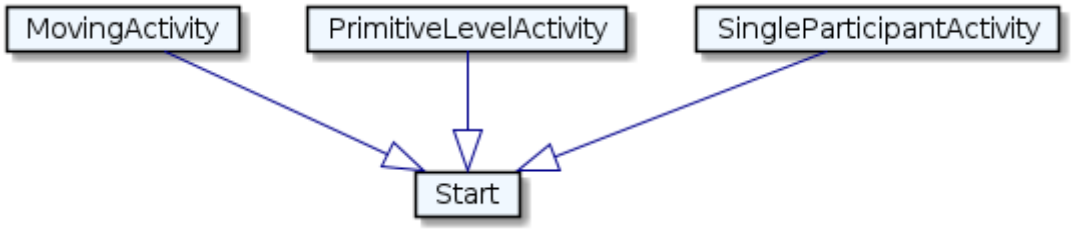
Element	Description
Type	Class
Name	StaggeredIntersection
IRI	http://ontology.asam.net/ontologies/Domain#StaggeredIntersection
Subclass of	IntersectionAtGrade
Comments	DEF: An Intersection that consists of two T-junctions that directly follow each other. One intersection is vertically rotated by 180° in relation to the other intersection.

Stand



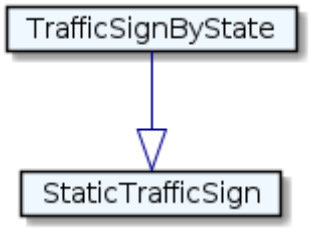
Element	Description
Type	Class
Name	Stand
IRI	http://ontology.asam.net/ontologies/Domain#Stand
Subclass of	PedestrianActivity
Subclass of	SingleParticipantActivity
Comments	DEF: A PedestrianActivity in which the biological object remains with both legs on the ground without moving in any direction.

Start



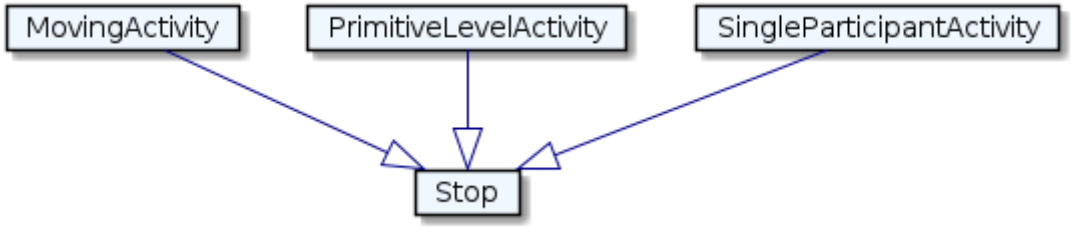
Element	Description
Type	Class
Name	Start
IRI	http://ontology.asam.net/ontologies/Domain#Start
Subclass of	MovingActivity
Subclass of	PrimitiveLevelActivity
Subclass of	SingleParticipantActivity
Comments	DEF: An Activity that starts with a speed of 0 for the subject traffic participant and ends with the traffic participant driving at a non-zero speed.

StaticTrafficSign



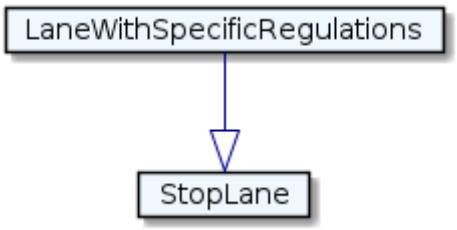
Element	Description
Type	Class
Name	StaticTrafficSign
IRI	http://ontology.asam.net/ontologies/Domain#StaticTrafficSign
Subclass of	TrafficSignByState
Comments	DEF: A traffic sign whose content is static, meaning it does not change over time.

Stop



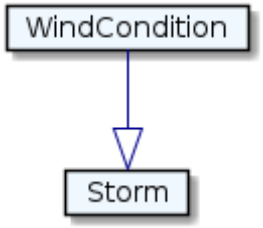
Element	Description
Type	Class
Name	Stop
IRI	http://ontology.asam.net/ontologies/Domain#Stop
Subclass of	MovingActivity
Subclass of	PrimitiveLevelActivity
Subclass of	SingleParticipantActivity
Comments	DEF: An Activity that starts with the subject traffic participant driving at a non-zero speed and ends with a speed of 0 for the subject.

StopLane



Element	Description
Type	Class
Name	StopLane
IRI	http://ontology.asam.net/ontologies/Domain#StopLane
Subclass of	LaneWithSpecificRegulations
Comments	DEF: StopLane is a LaneWithSpecificRegulations that is on the side of a highway (typically paved). This lane is only allowed for emergency stopping.

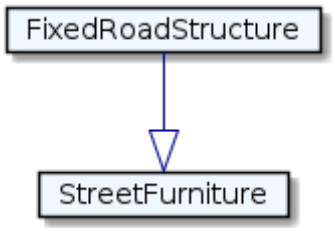
Storm



Element	Description
Type	Class
Name	Storm

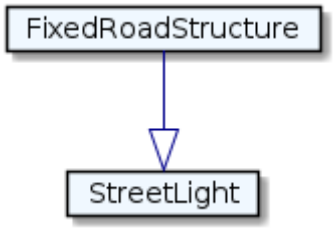
Element	Description
IRI	http://ontology.asam.net/ontologies/Domain#Storm
Subclass of	WindCondition
Comments	DEF: Storm is a WindCondition, is it described by the WindSpeed property using m/s, Storm is when the WindSpeed is 24.5-28.4 m/s.

StreetFurniture



Element	Description
Type	Class
Name	StreetFurniture
IRI	http://ontology.asam.net/ontologies/Domain#StreetFurniture
Subclass of	FixedRoadStructure
Comments	DEF: A FixedRoadStructure installed at or along a road. Street furniture may have different purposes, such as providing resting places, creating obstacles for traffic, or decorating.

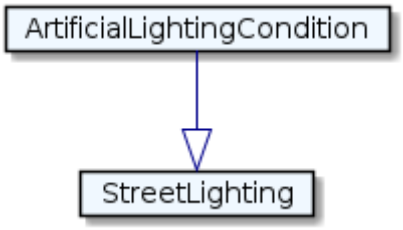
StreetLight



Element	Description
Type	Class
Name	StreetLight
IRI	http://ontology.asam.net/ontologies/Domain#StreetLight
Subclass of	FixedRoadStructure

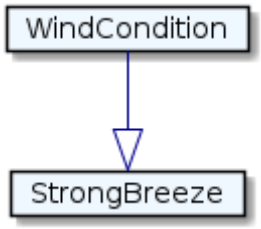
Element	Description
Comments	DEF: A FixedRoadStructure that is a manufactured source of light on the edge of the road.

StreetLighting



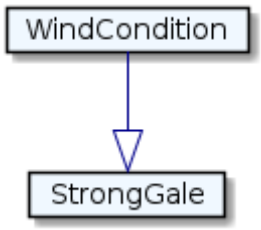
Element	Description
Type	Class
Name	StreetLighting
IRI	http://ontology.asam.net/ontologies/Domain#StreetLighting
Subclass of	ArtificialLightingCondition
Comments	DEF: An ArtificialLightingCondition where the area in question is illuminated by lighting equipment installed along the road, typically mounted on tall posts.

StrongBreeze



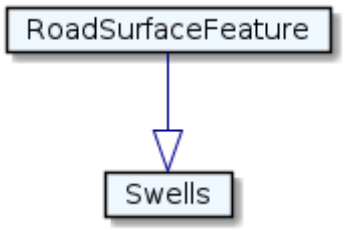
Element	Description
Type	Class
Name	StrongBreeze
IRI	http://ontology.asam.net/ontologies/Domain#StrongBreeze
Subclass of	WindCondition
Comments	DEF: StrongBreeze is a WindCondition, is it described by the WindSpeed property using m/s, StrongBreeze is when the WindSpeed is 10.8-13.8 m/s.

StrongGale



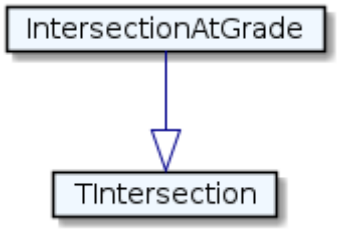
Element	Description
Type	Class
Name	StrongGale
IRI	http://ontology.asam.net/ontologies/Domain#StrongGale
Subclass of	WindCondition
Comments	DEF: StrongGale is a WindCondition, is it described by the WindSpeed property using m/s, StrongGale is when the WindSpeed is 20.8-24.4 m/s.

Swells



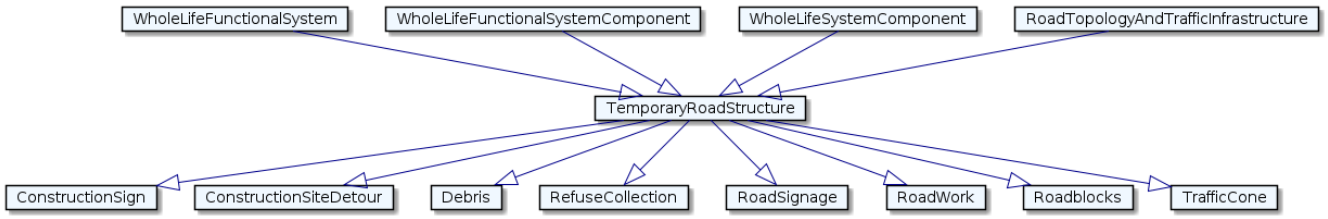
Element	Description
Type	Class
Name	Swells
IRI	http://ontology.asam.net/ontologies/Domain#Swells
Subclass of	RoadSurfaceFeature
Comments	DEF:Swells is a RoadSurfaceFeature that indicates a raised or elevated surface that was not part of the original road designs and can often be caused by the environmental conditions.

TIntersection



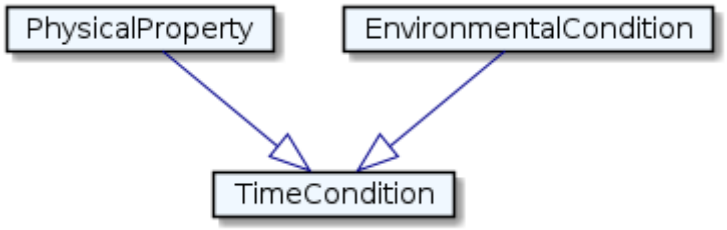
Element	Description
Type	Class
Name	TIntersection
IRI	http://ontology.asam.net/ontologies/Domain#TIntersection
Subclass of	IntersectionAtGrade
Comments	DEF: An Intersection that consists of three roads. Two of the roads form a straight line, the third road meets the others at 90°. The resulting shape is similar to the capital letter T.

TemporaryRoadStructure



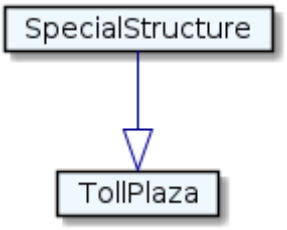
Element	Description
Type	Class
Name	TemporaryRoadStructure
IRI	http://ontology.asam.net/ontologies/Domain#TemporaryRoadStructure
Subclass of	WholeLifeFunctionalSystem
Subclass of	WholeLifeFunctionalSystemComponent
Subclass of	WholeLifeSystemComponent
Subclass of	RoadTopologyAndTrafficInfrastructure
Comments	DEF: A traffic infrastructure that is located on a road for limited period of time and because of specific situations, such as accidents, traffic guidance, or construction works

TimeCondition



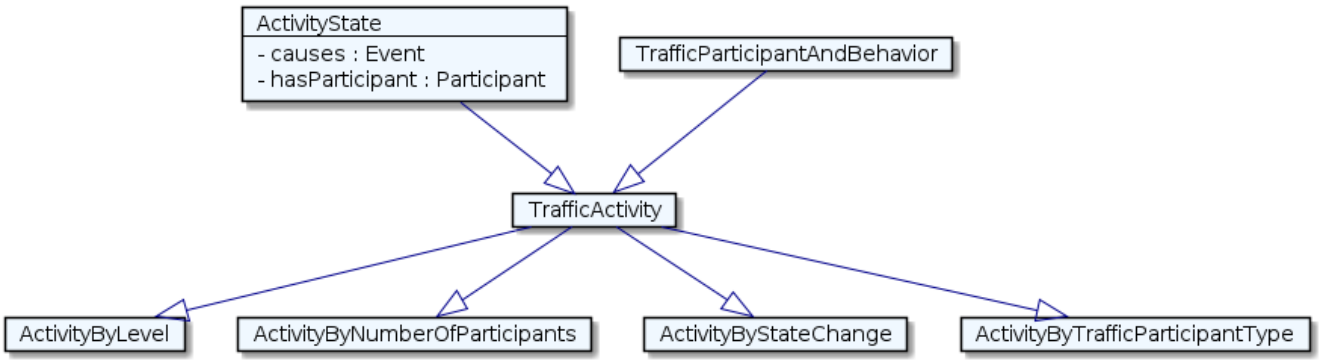
Element	Description
Type	Class
Name	TimeCondition
IRI	http://ontology.asam.net/ontologies/Domain#TimeCondition
Subclass of	PhysicalProperty
Subclass of	EnvironmentalCondition
Comments	DEF: An EnvironmentalCondition that gives information about the time when a specific traffic situation occurs. Time may be give as time of day, day of week, or date of year.

TollPlaza



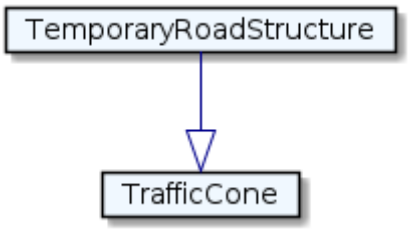
Element	Description
Type	Class
Name	TollPlaza
IRI	http://ontology.asam.net/ontologies/Domain#TollPlaza
Subclass of	SpecialStructure
Comments	DEF: A SpecialStructure that contains toll roads, toll boths, and other structures for toll collection.

TrafficActivity



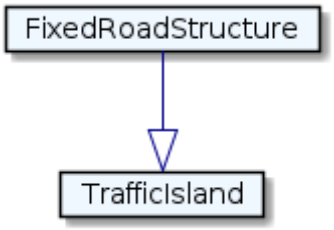
Element	Description
Type	Class
Name	TrafficActivity
IRI	http://ontology.asam.net/ontologies/Domain#TrafficActivity
Subclass of	ActivityState
Subclass of	TrafficParticipantAndBehavior
Comments	DEF: An activity implies actions performed by traffic participants during a traffic situation, typically to achieve a specific goal, like changing a lane.

TrafficCone



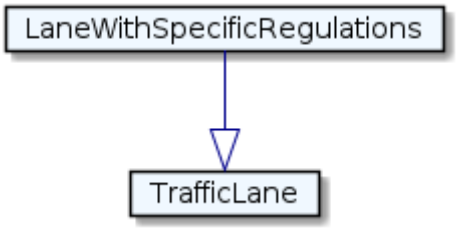
Element	Description
Type	Class
Name	TrafficCone
IRI	http://ontology.asam.net/ontologies/Domain#TrafficCone
Subclass of	TemporaryRoadStructure
Comments	DEF: A TemporaryRoadStructure that is a solid or hollow cone-shaped marker that is place on roads or sidewalks to temporarily redirect the traffic.

TrafficIsland



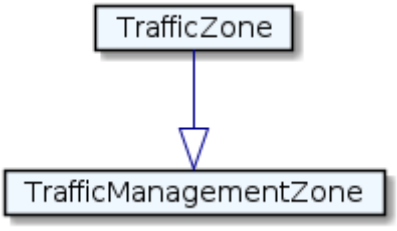
Element	Description
Type	Class
Name	TrafficIsland
IRI	http://ontology.asam.net/ontologies/Domain#TrafficIsland
Subclass of	FixedRoadStructure
Comments	DEF: A FixedRoadStructure that is located on the surface of a road and that serves to guide the traffic flow or protect pedestrians at crosswalks.

TrafficLane



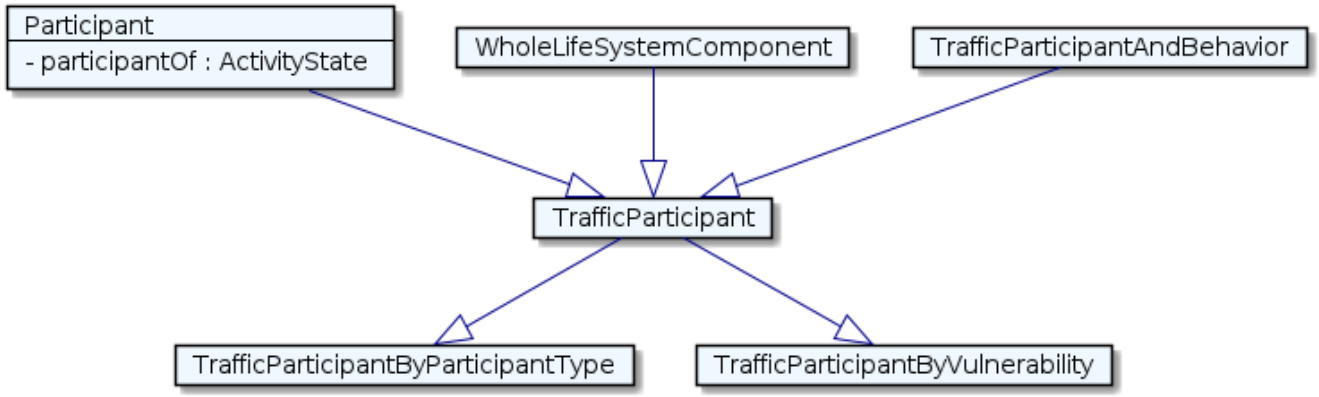
Element	Description
Type	Class
Name	TrafficLane
IRI	http://ontology.asam.net/ontologies/Domain#TrafficLane
Subclass of	LaneWithSpecificRegulations
Comments	DEF: TrafficLane is a type of LaneWithSpecificRegulations. It is intended for motorist to use and not suitable for pedestrians, traffic stream is marked off on a road.

TrafficManagementZone



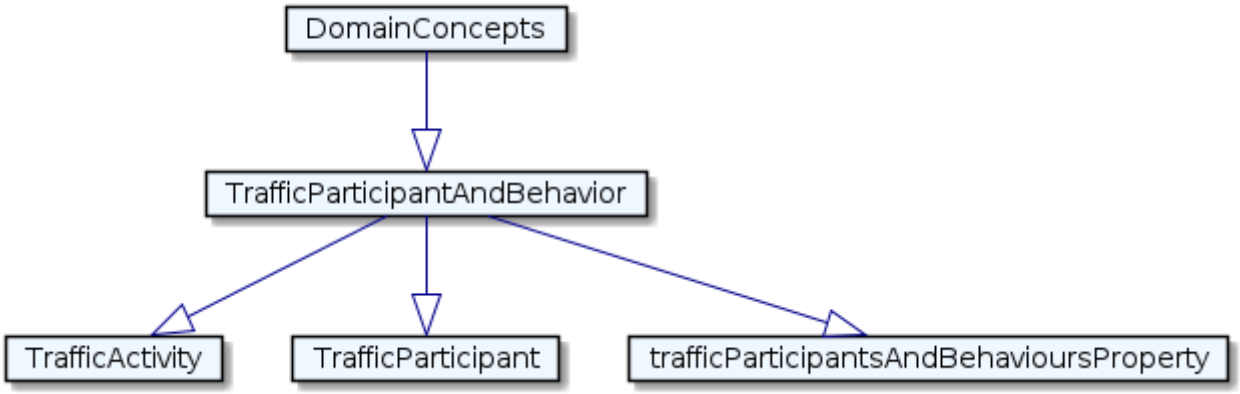
Element	Description
Type	Class
Name	TrafficManagementZone
IRI	http://ontology.asam.net/ontologies/Domain#TrafficManagementZone
Subclass of	TrafficZone
Comments	DEF: A Zone that features infrastructure elements and measures to avoid peaks in the traffic density and create a smooth traffic flow on busy major traffic routes.

TrafficParticipant



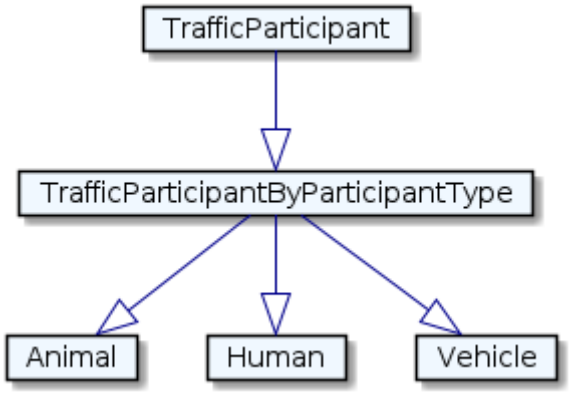
Element	Description
Type	Class
Name	TrafficParticipant
IRI	http://ontology.asam.net/ontologies/Domain#TrafficParticipant
Subclass of	Participant
Subclass of	WholeLifeSystemComponent
Subclass of	TrafficParticipantAndBehavior
Comments	DEF: Traffic participant is A state of a physical object that is participating actively in some traffic activity

TrafficParticipantAndBehavior



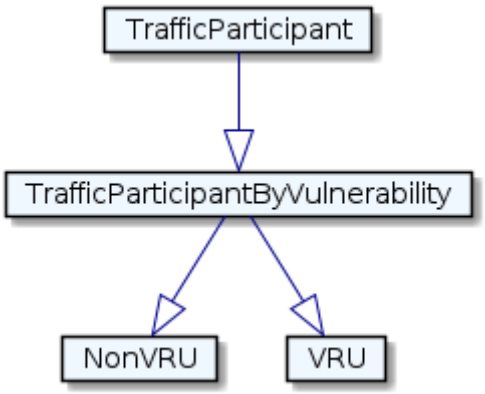
Element	Description
Type	Class
Name	TrafficParticipantAndBehavior
IRI	http://ontology.asam.net/ontologies/Domain#TrafficParticipantAndBehavior
Subclass of	DomainConcepts
Comments	DEF: A set of activities, physical objects, and functional objects that describe traffic participants and their dynamic behavior.

TrafficParticipantByParticipantType



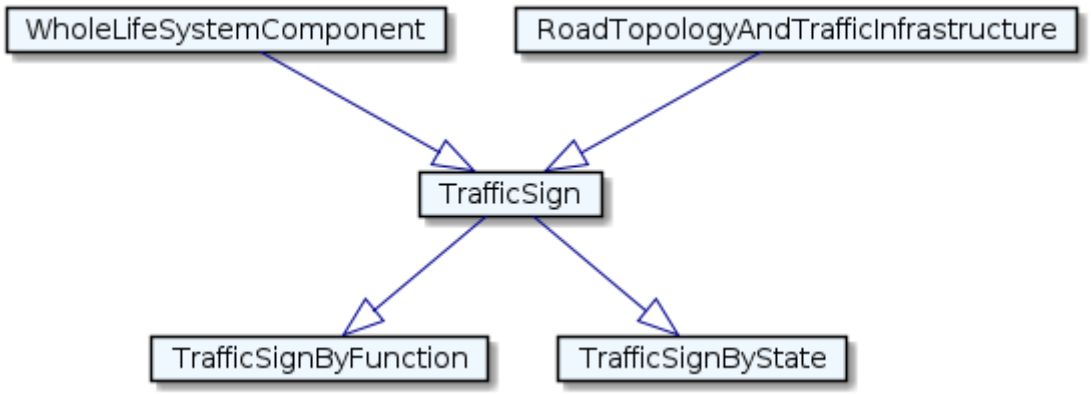
Element	Description
Type	Class
Name	TrafficParticipantByParticipantType
IRI	http://ontology.asam.net/ontologies/Domain#TrafficParticipantByParticipantType
Subclass of	TrafficParticipant
Comments	DEF: A set of traffic participants which are categorized by the individuals that participate in road traffic, such as vehicles or pedestrians.

TrafficParticipantByVulnerability



Element	Description
Type	Class
Name	TrafficParticipantByVulnerability
IRI	http://ontology.asam.net/ontologies/Domain#TrafficParticipantByVulnerability
Subclass of	TrafficParticipant
Comments	DEF: A set of traffic participants categorized by the probability and severity of injuries to people involved in a particular traffic situation.

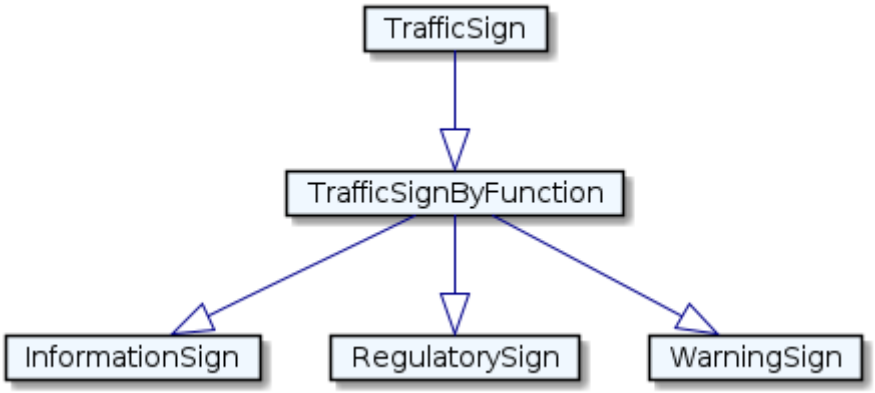
TrafficSign



Element	Description
Type	Class
Name	TrafficSign
IRI	http://ontology.asam.net/ontologies/Domain#TrafficSign
Subclass of	WholeLifeSystemComponent
Subclass of	RoadTopologyAndTrafficInfrastructure

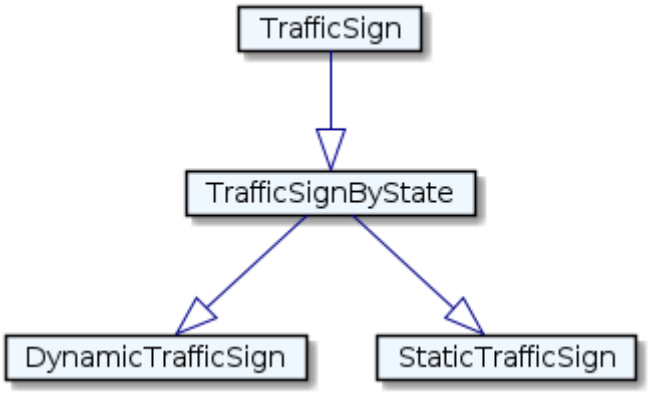
Element	Description
Comments	DEF: A traffic infrastructure element that is a sign located at the side or above a road to provide information or instructions to traffic participants.

TrafficSignByFunction



Element	Description
Type	Class
Name	TrafficSignByFunction
IRI	http://ontology.asam.net/ontologies/Domain#TrafficSignByFunction
Subclass of	TrafficSign
Comments	DEF: A set of traffic signs that groups signs according to type of content that they contain or which purpose they fulfil.

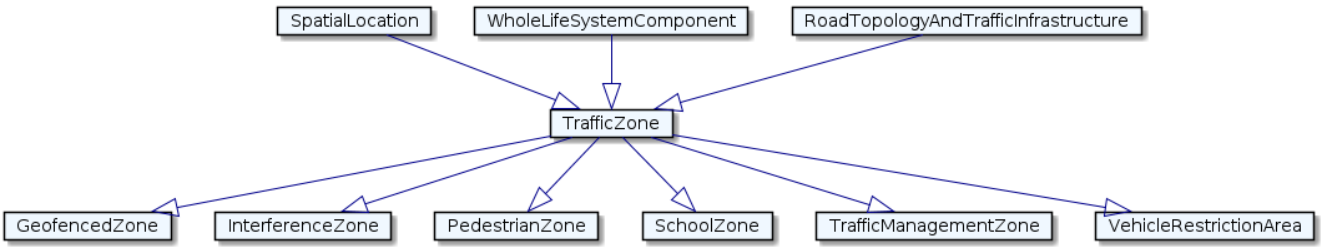
TrafficSignByState



Element	Description
Type	Class
Name	TrafficSignByState

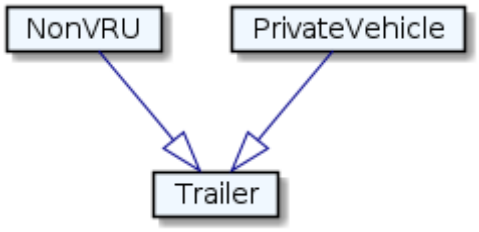
Element	Description
IRI	http://ontology.asam.net/ontologies/Domain#TrafficSignByState
Subclass of	TrafficSign
Comments	DEF: A set of traffic signs that groups signs depending on whether their content can be changed dynamically or is static.

TrafficZone



Element	Description
Type	Class
Name	TrafficZone
IRI	http://ontology.asam.net/ontologies/Domain#TrafficZone
Subclass of	SpatialLocation
Subclass of	WholeLifeSystemComponent
Subclass of	RoadTopologyAndTrafficInfrastructure
Comments	DEF: A geographic area with special road configurations, driving regulations, or environmental conditions. The boundaries of a zone may be fixed or dynamic. The conditions that define a zone may be based on complexity, operating procedures, or other factors.

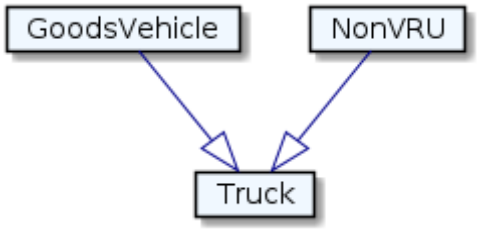
Trailer



Element	Description
Type	Class
Name	Trailer

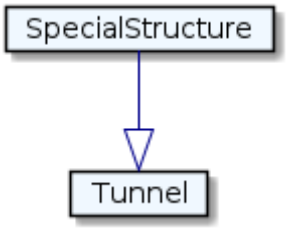
Element	Description
IRI	http://ontology.asam.net/ontologies/Domain#Trailer
Subclass of	NonVRU
Subclass of	PrivateVehicle
Comments	DEF: An unpowered Vehicle that is designed for being towed by another Vehicle.

Truck



Element	Description
Type	Class
Name	Truck
IRI	http://ontology.asam.net/ontologies/Domain#Truck
Subclass of	GoodsVehicle
Subclass of	NonVRU
Comments	DEF: A large and heavy road Vehicle designed and used for carrying goods and materials.

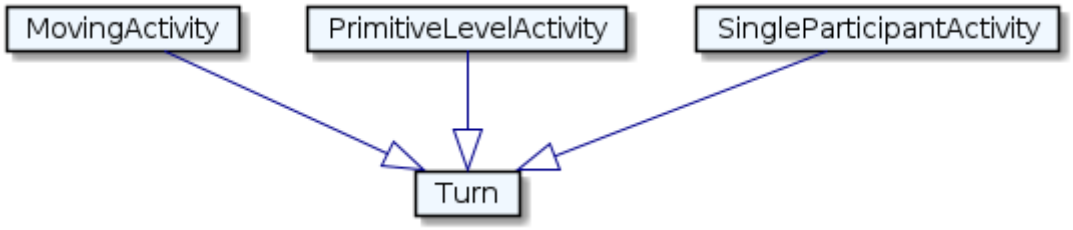
Tunnel



Element	Description
Type	Class
Name	Tunnel
IRI	http://ontology.asam.net/ontologies/Domain#Tunnel
Subclass of	SpecialStructure

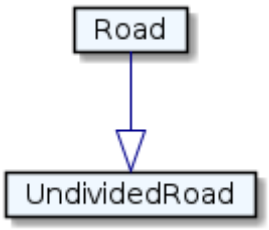
Element	Description
Comments	DEF: A SpecialStructure that is a built underground passage through or below a natural or built structure.

Turn



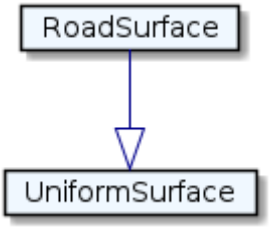
Element	Description
Type	Class
Name	Turn
IRI	http://ontology.asam.net/ontologies/Domain#Turn
Subclass of	MovingActivity
Subclass of	PrimitiveLevelActivity
Subclass of	SingleParticipantActivity
Comments	DEF: An Activity during which the subject traffic participant changes its orientation.

UndividedRoad



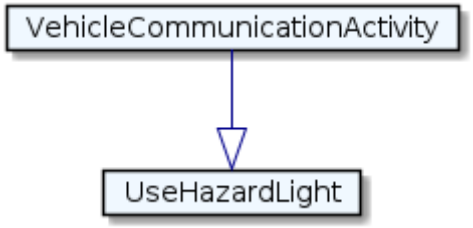
Element	Description
Type	Class
Name	UndividedRoad
IRI	http://ontology.asam.net/ontologies/Domain#UndividedRoad
Subclass of	Road
Comments	DEF: A type of road where traffic travels in both directions; the directions are not separated by a central reservation.

UniformSurface



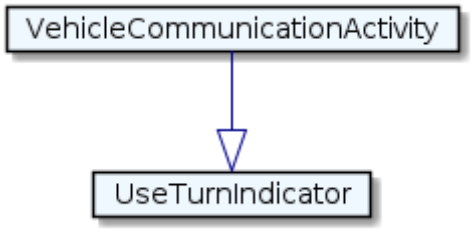
Element	Description
Type	Class
Name	UniformSurface
IRI	http://ontology.asam.net/ontologies/Domain#UniformSurface
Subclass of	RoadSurface
Comments	DEF:UniformSurface is a RoadSurface where the surface material is distributed evenly.

UseHazardLight



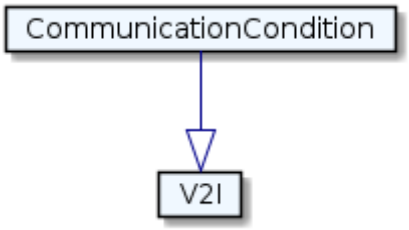
Element	Description
Type	Class
Name	UseHazardLight
IRI	http://ontology.asam.net/ontologies/Domain#UseHazardLight
Subclass of	VehicleCommunicationActivity
Comments	DEF: A VehicleCommunicatingActivity where a vehicle uses its hazard warning lights to warn other traffic participants of a dangerous situation or malfunction of the vehicle.

UseTurnIndicator



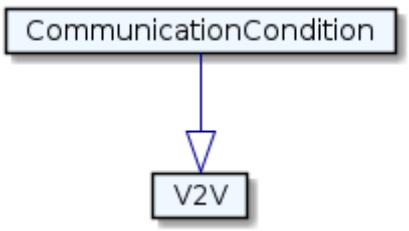
Element	Description
Type	Class
Name	UseTurnIndicator
IRI	http://ontology.asam.net/ontologies/Domain#UseTurnIndicator
Subclass of	VehicleCommunicationActivity
Comments	DEF: A VehicleCommunicatingActivity in which the subject vehicle uses its direction indicator light to indicate its intention of turning, changing lane, or similar.

V2I



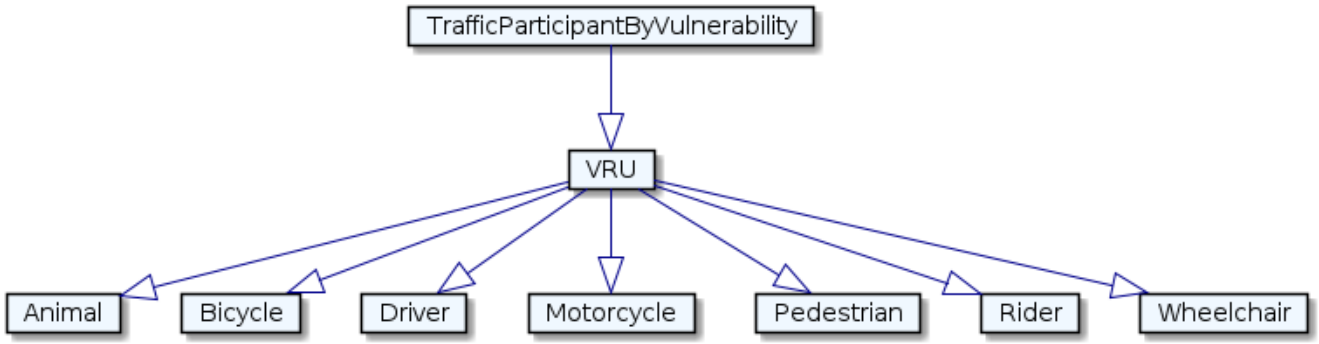
Element	Description
Type	Class
Name	V2I
IRI	http://ontology.asam.net/ontologies/Domain#V2I
Subclass of	CommunicationCondition
Comments	DEF: A CommunicationCondition that enables communication between a vehicle and the surrounding infrastructure.

V2V



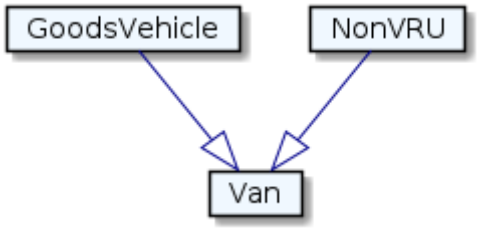
Element	Description
Type	Class
Name	V2V
IRI	http://ontology.asam.net/ontologies/Domain#V2V
Subclass of	CommunicationCondition
Comments	DEF: A CommunicationCondition that enables communication between a vehicle and other vehicles in a traffic situation.

VRU



Element	Description
Type	Class
Name	VRU
IRI	http://ontology.asam.net/ontologies/Domain#VRU
Subclass of	TrafficParticipantByVulnerability
Comments	DEF: Set of vulnerable road users (VRU) which are non-motorized traffic participants with reduce mobilities and orientation. A VRU includes both the mobility device (if applicable) and the human that controls it.

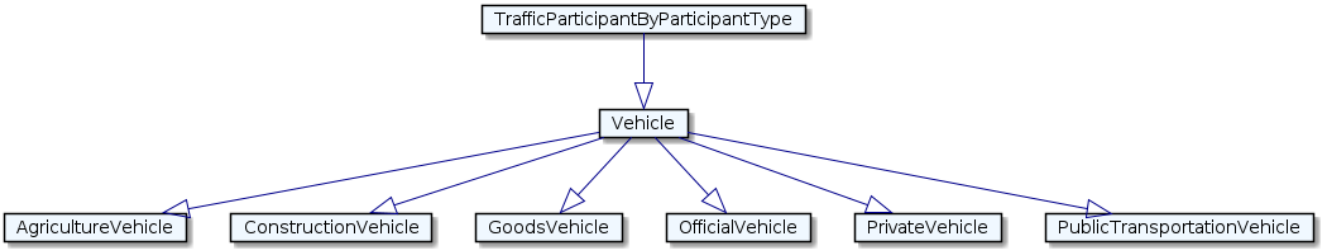
Van



Element	Description
Type	Class
Name	Van

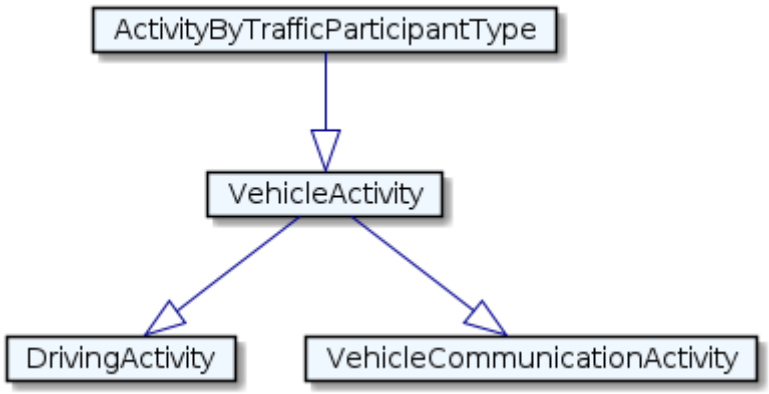
Element	Description
IRI	http://ontology.asam.net/ontologies/Domain#Van
Subclass of	GoodsVehicle
Subclass of	NonVRU
Comments	DEF: A medium sized, motor-powered Vehicle, usually without rear side windows, that is used for transporting goods.

Vehicle



Element	Description
Type	Class
Name	Vehicle
IRI	http://ontology.asam.net/ontologies/Domain#Vehicle
Subclass of	TrafficParticipantByParticipantType
Comments	DEF: A machine that is a TrafficFunctionalObject which has the intended role of transporting things like goods, humans, or animals. Vehicles are participants in traffic-related activities.

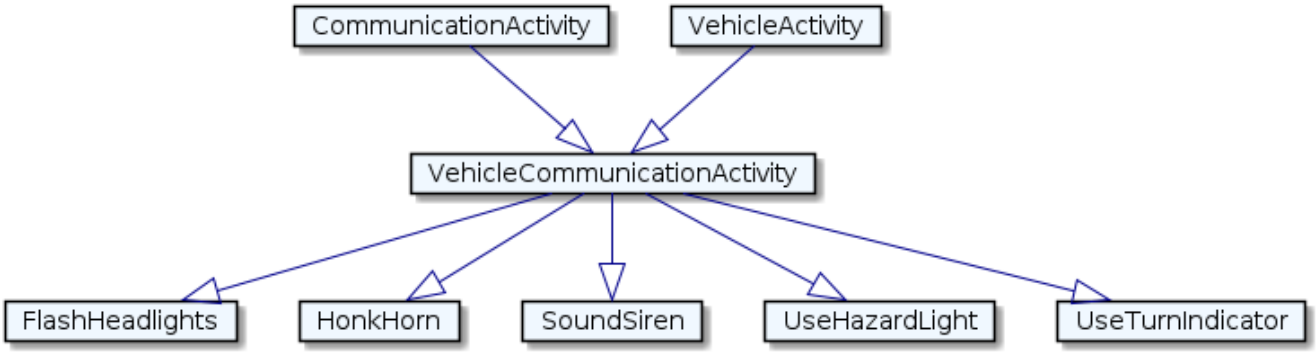
VehicleActivity



Element	Description
Type	Class
Name	VehicleActivity

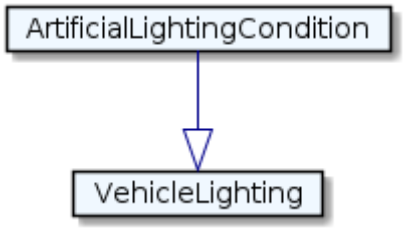
Element	Description
IRI	http://ontology.asam.net/ontologies/Domain#VehicleActivity
Subclass of	ActivityByTrafficParticipantType
Comments	DEF: A set of activities performed by vehicles.

VehicleCommunicationActivity



Element	Description
Type	Class
Name	VehicleCommunicationActivity
IRI	http://ontology.asam.net/ontologies/Domain#VehicleCommunicationActivity
Subclass of	CommunicationActivity
Subclass of	VehicleActivity
Comments	DEF: A CommunicatingActivity where the subject is a vehicle.

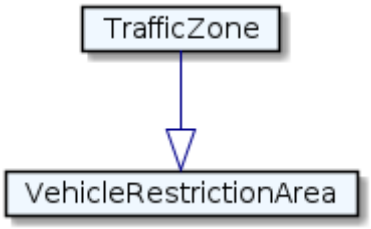
VehicleLighting



Element	Description
Type	Class
Name	VehicleLighting
IRI	http://ontology.asam.net/ontologies/Domain#VehicleLighting
Subclass of	ArtificialLightingCondition

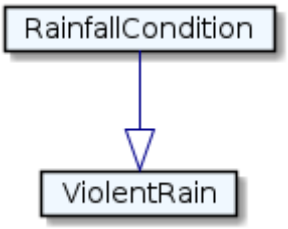
Element	Description
Comments	DEF: An ArtificialLightingCondition where the area in question is illuminated by lighting or signaling equipment installed on vehicles, for example, headlights.

VehicleRestrictionArea



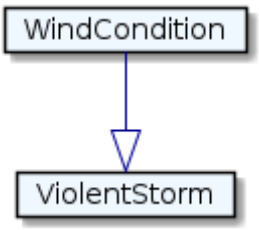
Element	Description
Type	Class
Name	VehicleRestrictionArea
IRI	http://ontology.asam.net/ontologies/Domain#VehicleRestrictionArea
Subclass of	TrafficZone
Comments	DEF: A Zone where specific types of traffic participants are not allowed to travel.

ViolentRain



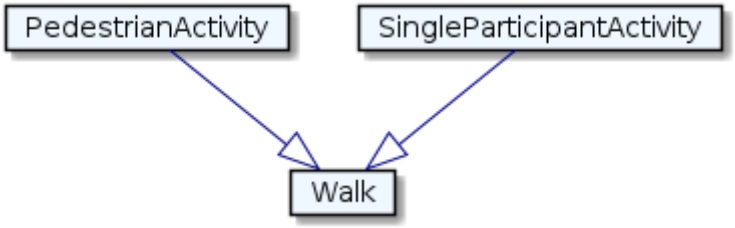
Element	Description
Type	Class
Name	ViolentRain
IRI	http://ontology.asam.net/ontologies/Domain#ViolentRain
Subclass of	RainfallCondition
Comments	DEF: ViolentRain is a RainfallCondition, is it described by the precipitationIntensity property using mm/hr, ViolentRain is when the precipitationIntensity is < 50 -100 mm/hr.

ViolentStorm



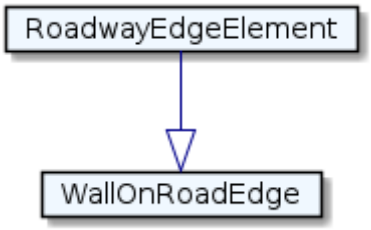
Element	Description
Type	Class
Name	ViolentStorm
IRI	http://ontology.asam.net/ontologies/Domain#ViolentStorm
Subclass of	WindCondition
Comments	DEF: ViolentStorm is a WindCondition, is it described by the WindSpeed property using m/s, ViolentStorm is when the WindSpeed is 28.5-32.6 m/s.

Walk



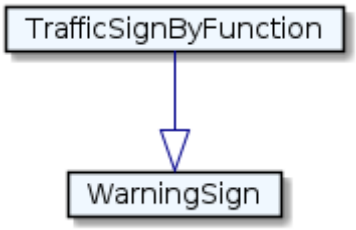
Element	Description
Type	Class
Name	Walk
IRI	http://ontology.asam.net/ontologies/Domain#Walk
Subclass of	PedestrianActivity
Subclass of	SingleParticipantActivity
Comments	DEF: A PedestrianActivity where the biological object moves in such a way that at least one foot is always on the ground.

WallOnRoadEdge



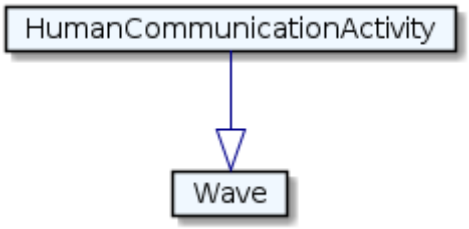
Element	Description
Type	Class
Name	WallOnRoadEdge
IRI	http://ontology.asam.net/ontologies/Domain#WallOnRoadEdge
Subclass of	RoadwayEdgeElement
Comments	DEF: A RoadwayEdgeElement that is a vertical structure built from brick or stone and that separates the road from the surrounding area of land.

WarningSign



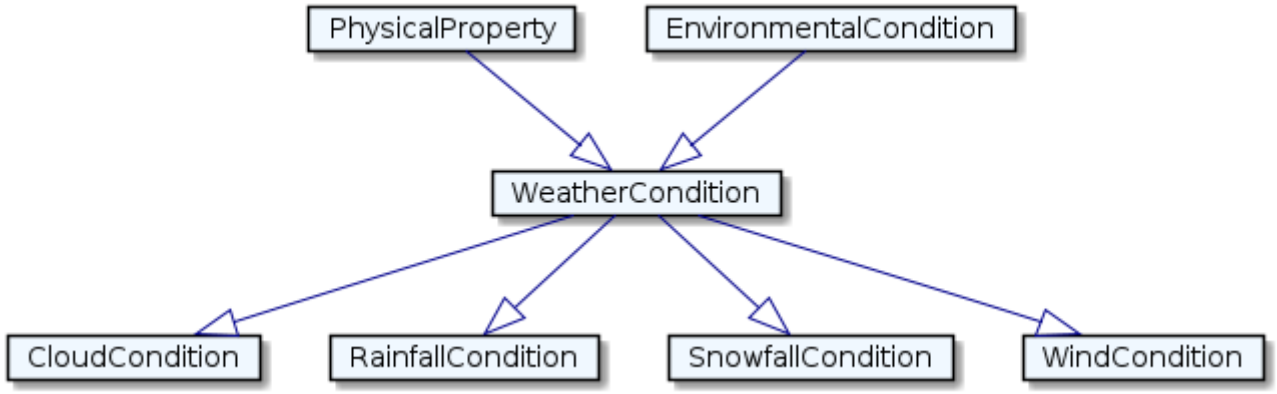
Element	Description
Type	Class
Name	WarningSign
IRI	http://ontology.asam.net/ontologies/Domain#WarningSign
Subclass of	TrafficSignByFunction
Comments	DEF: A traffic sign that warns traffic participants of potential dangers ahead so that these can react accordingly, for example, reduce speed.

Wave



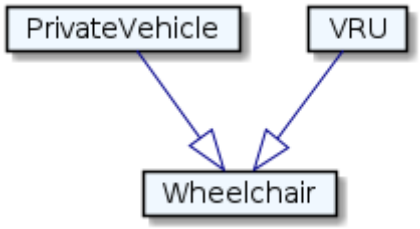
Element	Description
Type	Class
Name	Wave
IRI	http://ontology.asam.net/ontologies/Domain#Wave
Subclass of	HumanCommunicationActivity
Comments	DEF: An Activity of a human traffic participant which waves a hand to indicate their intention.

WeatherCondition



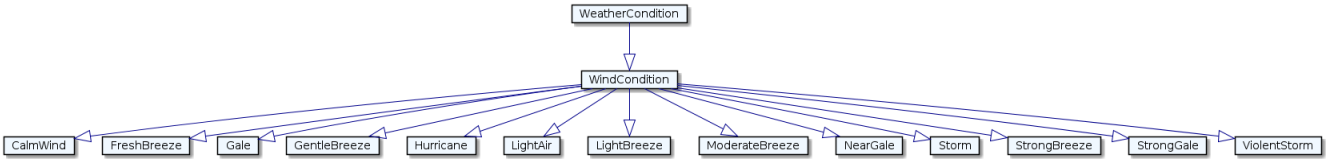
Element	Description
Type	Class
Name	WeatherCondition
IRI	http://ontology.asam.net/ontologies/Domain#WeatherCondition
Subclass of	PhysicalProperty
Subclass of	EnvironmentalCondition
Comments	DEF: An EnvironmentalCondition that comprises the characteristics of the atmosphere in terms of wind, rain, fog, snowfall and other natural phenomena.

Wheelchair



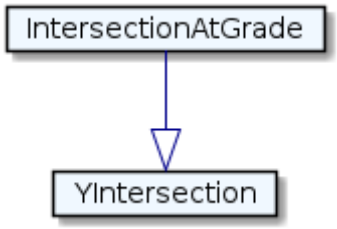
Element	Description
Type	Class
Name	Wheelchair
IRI	http://ontology.asam.net/ontologies/Domain#Wheelchair
Subclass of	PrivateVehicle
Subclass of	VRU
Comments	DEF: A traffic participant which consists of a (handicapped) person sitting in a chair that is equipped with wheels. The person uses the chair as means of transport.

WindCondition



Element	Description
Type	Class
Name	WindCondition
IRI	http://ontology.asam.net/ontologies/Domain#WindCondition
Subclass of	WeatherCondition
Comments	DEF: A WeatherCondition that defines the wind properties within a traffic situation. Properties can include speed, direction, and other characteristics.

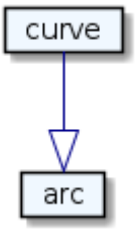
YIntersection



Element	Description
Type	Class
Name	YIntersection
IRI	http://ontology.asam.net/ontologies/Domain#YIntersection

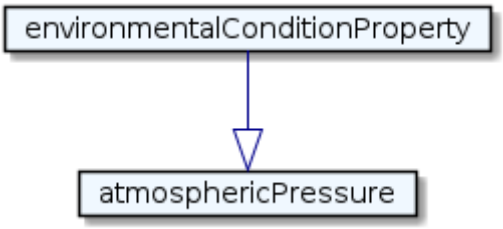
Element	Description
Subclass of	IntersectionAtGrade
Comments	DEF: An Intersection with three roads that has the shape of the capital letter Y.

arc



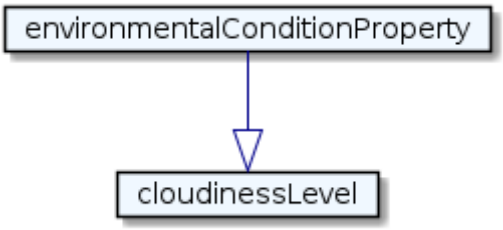
Element	Description
Type	Class
Name	arc
IRI	http://ontology.asam.net/ontologies/Domain#arc
Subclass of	curve
Comments	DEF: A Curve with a constant curvature.

atmosphericPressure



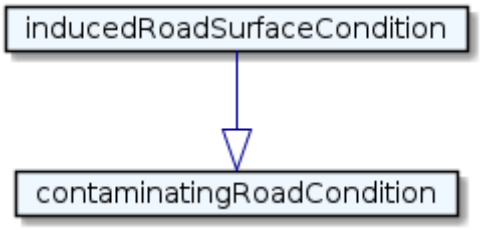
Element	Description
Type	Class
Name	atmosphericPressure
IRI	http://ontology.asam.net/ontologies/Domain#atmosphericPressure
Subclass of	environmentalConditionProperty
Comments	DEF: An ambientConditionProperty that specifies the force per given area unit exerted by the atmosphere. Pascal is used as unit of measurement; values may range from 0 to infinity.

cloudinessLevel



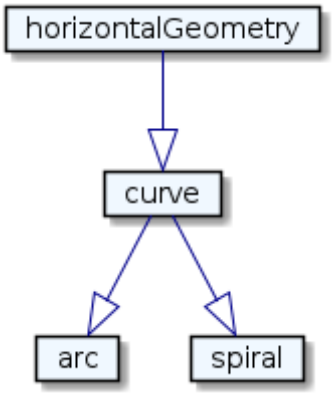
Element	Description
Type	Class
Name	cloudinessLevel
IRI	http://ontology.asam.net/ontologies/Domain#cloudinessLevel
Subclass of	environmentalConditionProperty
Comments	DEF: An ambientConditionProperty that determines the amount of sky covered in clouds. Okta is used as unit of measurement.

contaminatingRoadCondition



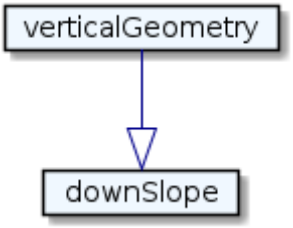
Element	Description
Type	Class
Name	contaminatingRoadCondition
IRI	http://ontology.asam.net/ontologies/Domain#contaminatingRoadCondition
Subclass of	inducedRoadSurfaceCondition
Comments	DEF: An InducedRoadSurfaceCondition where the road surface is covered with substances or a mix of substances and other materials.

curve



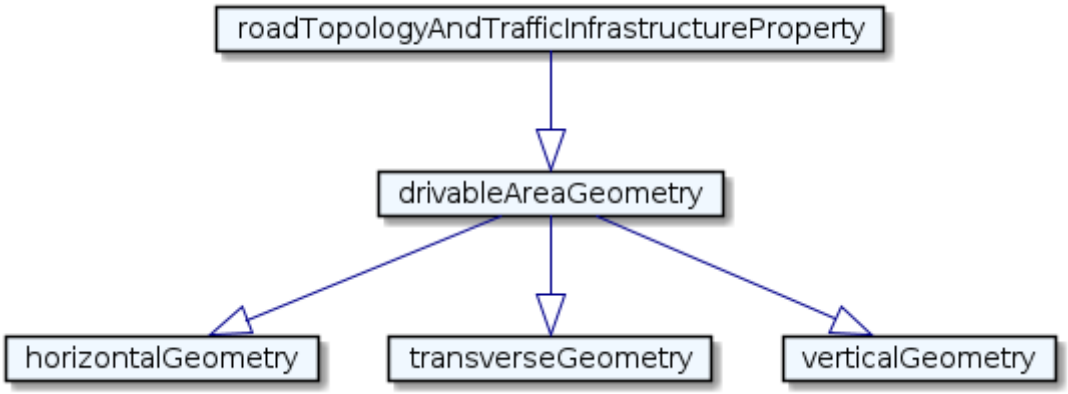
Element	Description
Type	Class
Name	curve
IRI	http://ontology.asam.net/ontologies/Domain#curve
Subclass of	horizontalGeometry
Comments	DEF: A HorizontalGeometry that is not straight.

downSlope



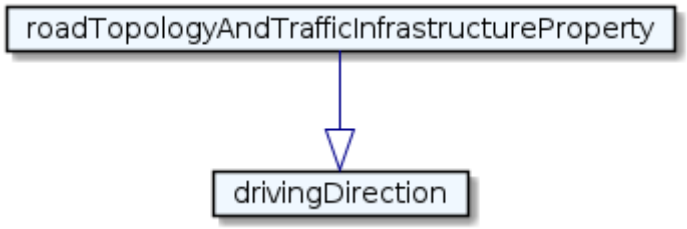
Element	Description
Type	Class
Name	downSlope
IRI	http://ontology.asam.net/ontologies/Domain#downSlope
Subclass of	verticalGeometry
Comments	DEF: A VerticalGeometry that is a plane with negative gradient. It represents a descending elevation of the road in driving direction.

drivableAreaGeometry



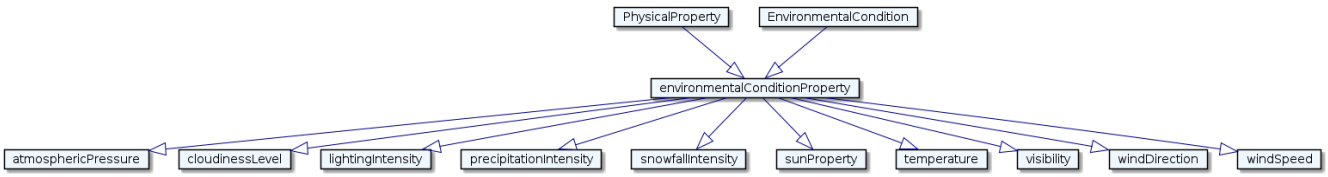
Element	Description
Type	Class
Name	drivableAreaGeometry
IRI	http://ontology.asam.net/ontologies/Domain#drivableAreaGeometry
Subclass of	roadTopologyAndTrafficInfrastructureProperty
Comments	DEF: Shape of a drivable area described as geometry.

drivingDirection



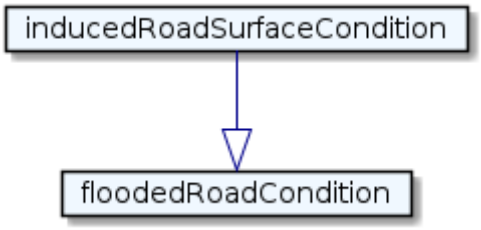
Element	Description
Type	Class
Name	drivingDirection
IRI	http://ontology.asam.net/ontologies/Domain#drivingDirection
Subclass of	roadTopologyAndTrafficInfrastructureProperty
Comments	DEF: A traffic infrastructure property that indicates whether traffic participants keep on the left or right side of the road in birectional travel.

environmentalConditionProperty



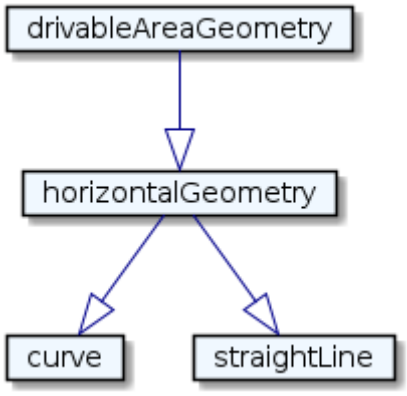
Element	Description
Type	Class
Name	environmentalConditionProperty
IRI	http://ontology.asam.net/ontologies/Domain#environmentalConditionProperty
Subclass of	PhysicalProperty
Subclass of	EnvironmentalCondition

floodedRoadCondition



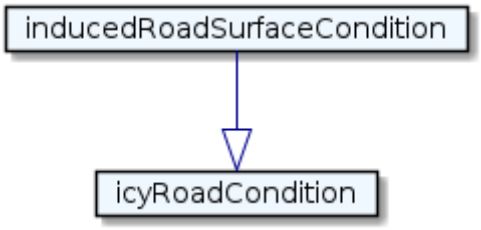
Element	Description
Type	Class
Name	floodedRoadCondition
IRI	http://ontology.asam.net/ontologies/Domain#floodedRoadCondition
Subclass of	inducedRoadSurfaceCondition
Comments	DEF: An InducedRoadSurfaceCondition where the road is covered with flowing water, especially from rain.

horizontalGeometry



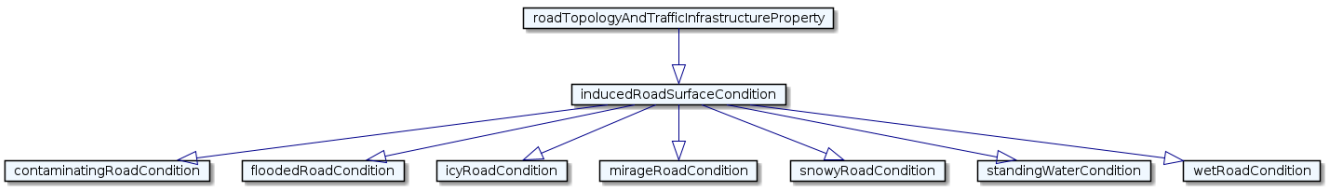
Element	Description
Type	Class
Name	horizontalGeometry
IRI	http://ontology.asam.net/ontologies/Domain#horizontalGeometry
Subclass of	drivableAreaGeometry
Comments	DEF: A DrivableAreaGeometry in the horizontal plane

icyRoadCondition



Element	Description
Type	Class
Name	icyRoadCondition
IRI	http://ontology.asam.net/ontologies/Domain#icyRoadCondition
Subclass of	inducedRoadSurfaceCondition
Comments	DEF: An InducedRoadSurfaceCondition where the road is completely or partially covered with ice.

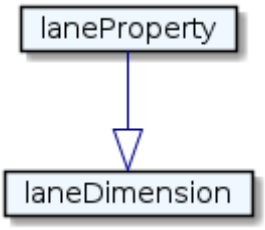
inducedRoadSurfaceCondition



Element	Description
Type	Class
Name	inducedRoadSurfaceCondition
IRI	http://ontology.asam.net/ontologies/Domain#inducedRoadSurfaceCondition
Subclass of	roadTopologyAndTrafficInfrastructureProperty

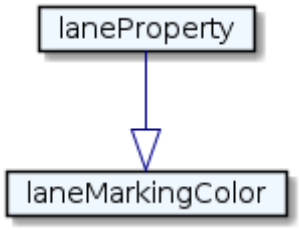
Element	Description
Comments	DEF: A traffic infrastructure property that describes the conditions on the road surface caused by environmental influences, such as rain or snow.

laneDimension



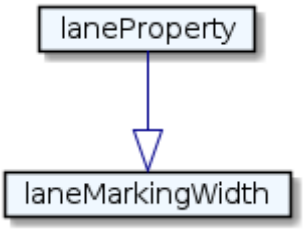
Element	Description
Type	Class
Name	laneDimension
IRI	http://ontology.asam.net/ontologies/Domain#laneDimension
Subclass of	laneProperty
Comments	DEF: A LaneProperty that is the width of the lane.

laneMarkingColor



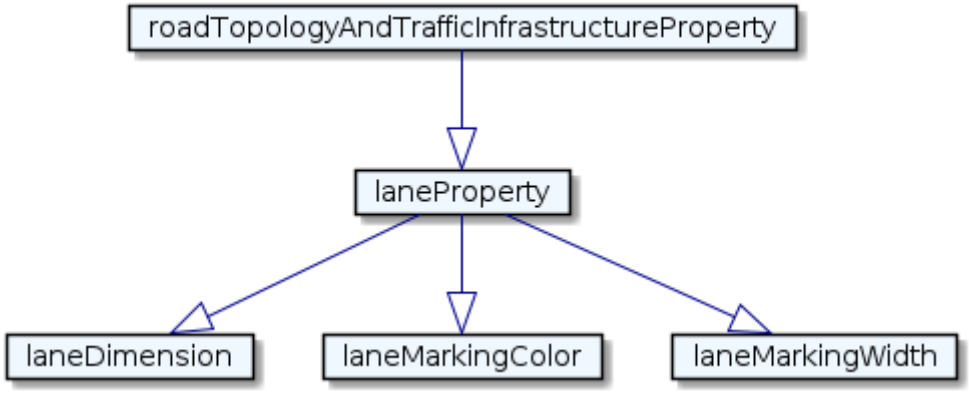
Element	Description
Type	Class
Name	laneMarkingColor
IRI	http://ontology.asam.net/ontologies/Domain#laneMarkingColor
Subclass of	laneProperty
Comments	DEF: A LaneProperty that is the colour of the lane marking.

laneMarkingWidth



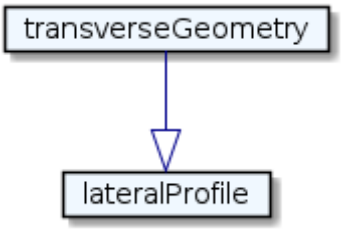
Element	Description
Type	Class
Name	laneMarkingWidth
IRI	http://ontology.asam.net/ontologies/Domain#laneMarkingWidth
Subclass of	laneProperty
Comments	DEF: A LaneProperty that is the width of the lane marking.

laneProperty



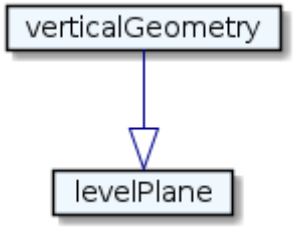
Element	Description
Type	Class
Name	laneProperty
IRI	http://ontology.asam.net/ontologies/Domain#laneProperty
Subclass of	roadTopologyAndTrafficInfrastructureProperty
Comments	DEF: A traffic infrastructure property that describes the characteristics of a lane.

lateralProfile



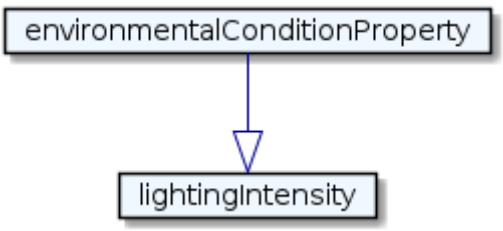
Element	Description
Type	Class
Name	lateralProfile
IRI	http://ontology.asam.net/ontologies/Domain#lateralProfile
Subclass of	transverseGeometry
Comments	DEF: A TransverseGeometry that specifies the elevation of a road orthogonally to a reference line.

levelPlane



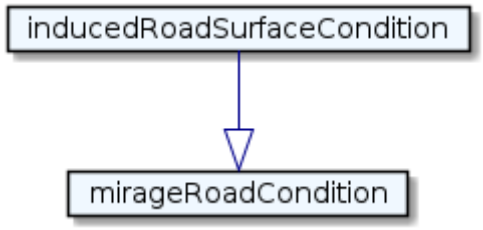
Element	Description
Type	Class
Name	levelPlane
IRI	http://ontology.asam.net/ontologies/Domain#levelPlane
Subclass of	verticalGeometry
Comments	DEF: A VerticalGeometry that is a plane with a gradient of 0. All points of the plane are on the same vertical level.

lightingIntensity



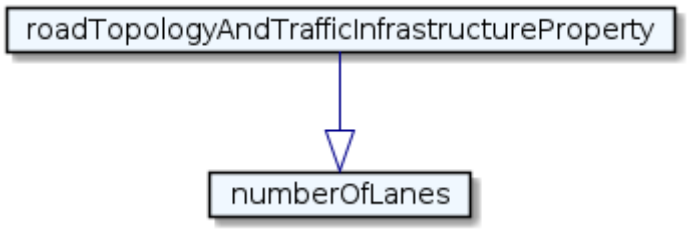
Element	Description
Type	Class
Name	lightingIntensity
IRI	http://ontology.asam.net/ontologies/Domain#lightingIntensity
Subclass of	environmentalConditionProperty
Comments	DEF: An ambientConditionProperty that describes the intensity of illumination by a lighting source. Lux is used as unit of measurement.

mirageRoadCondition



Element	Description
Type	Class
Name	mirageRoadCondition
IRI	http://ontology.asam.net/ontologies/Domain#mirageRoadCondition
Subclass of	inducedRoadSurfaceCondition
Comments	DEF: An InducedRoadSurfaceCondition where displaced images of distant objects or the sky appear. A mirage is a natural optical phenomenon caused by the bending of light rays via refraction.

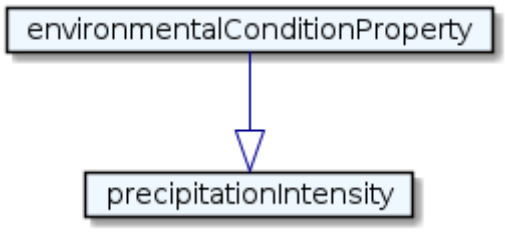
numberOfLanes



Element	Description
Type	Class
Name	numberOfLanes
IRI	http://ontology.asam.net/ontologies/Domain#numberOfLanes

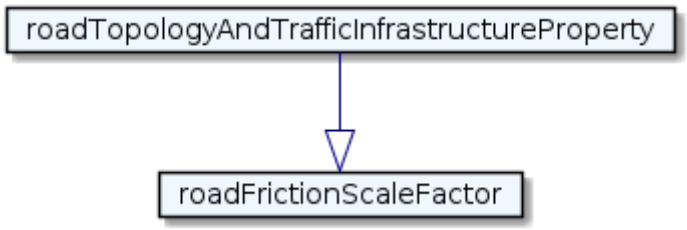
Element	Description
Subclass of	roadTopologyAndTrafficInfrastructureProperty
Comments	DEF: A traffic infrastructure property that indicates how many lanes a road has.

precipitationIntensity



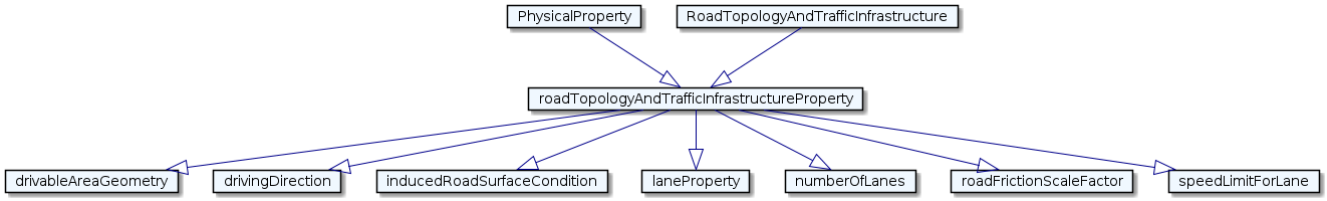
Element	Description
Type	Class
Name	precipitationIntensity
IRI	http://ontology.asam.net/ontologies/Domain#precipitationIntensity
Subclass of	environmentalConditionProperty
Comments	DEF: An ambientProperty that measures the level of rainfall. mm/hr is used as unit of measurement. It gives the amount or volume of water per fixed amount of time (hour).

roadFrictionScaleFactor



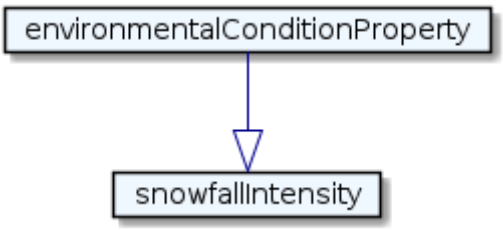
Element	Description
Type	Class
Name	roadFrictionScaleFactor
IRI	http://ontology.asam.net/ontologies/Domain#roadFrictionScaleFactor
Subclass of	roadTopologyAndTrafficInfrastructureProperty
Comments	DEF: RoadFrictionScaleFactor is a RoadTopologyAndTrafficInfrastructureProperty that describes the Friction scale factor

roadTopologyAndTrafficInfrastructureProperty



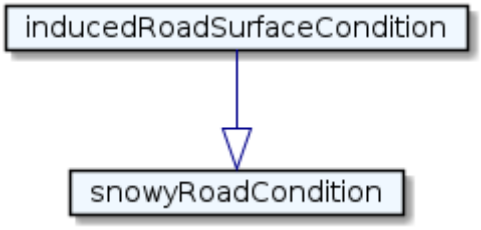
Element	Description
Type	Class
Name	roadTopologyAndTrafficInfrastructureProperty
IRI	http://ontology.asam.net/ontologies/Domain#roadTopologyAndTrafficInfrastructureProperty
Subclass of	PhysicalProperty
Subclass of	RoadTopologyAndTrafficInfrastructure

snowfallIntensity



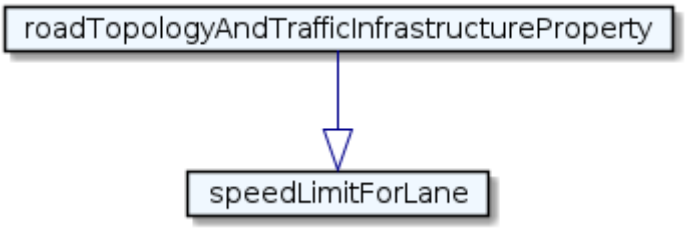
Element	Description
Type	Class
Name	snowfallIntensity
IRI	http://ontology.asam.net/ontologies/Domain#snowfallIntensity
Subclass of	environmentalConditionProperty
Comments	DEF: An ambientProperty that quantifies the amount of snow that falls within an area. mm/hr is used as unit of measurement. It gives the amount or volume of water per fixed amount of time (hour).

snowyRoadCondition



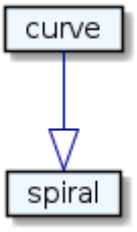
Element	Description
Type	Class
Name	snowyRoadCondition
IRI	http://ontology.asam.net/ontologies/Domain#snowyRoadCondition
Subclass of	inducedRoadSurfaceCondition
Comments	DEF: An InducedRoadSurfaceCondition where snow covers the surface of the road. Snow on the surface lowers the friction coefficent and can obscure lane markings.

speedLimitForLane



Element	Description
Type	Class
Name	speedLimitForLane
IRI	http://ontology.asam.net/ontologies/Domain#speedLimitForLane
Subclass of	roadTopologyAndTrafficInfrastructureProperty

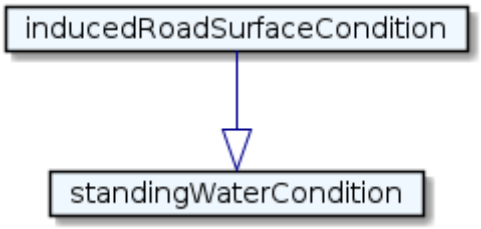
spiral



Element	Description
Type	Class
Name	spiral
IRI	http://ontology.asam.net/ontologies/Domain#spiral
Subclass of	curve

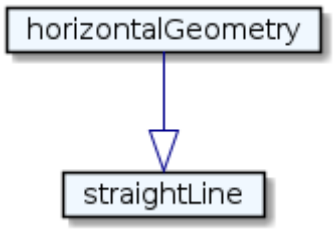
Element	Description
Comments	DEF: A Curve with a changing curvature that is described as a clothoid. Spirals may be used to describe the transitions between geometric shapes and help avoiding leaps and gaps in the curvature.

standingWaterCondition



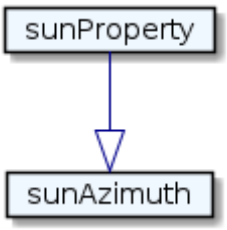
Element	Description
Type	Class
Name	standingWaterCondition
IRI	http://ontology.asam.net/ontologies/Domain#standingWaterCondition
Subclass of	inducedRoadSurfaceCondition
Comments	DEF: An InducedRoadSurfaceCondition where the road is covered with non-flowing (standing) water. Standing water often occurs in road sinks.

straightLine



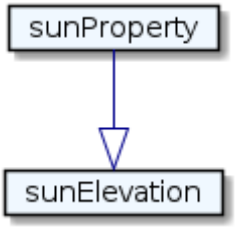
Element	Description
Type	Class
Name	straightLine
IRI	http://ontology.asam.net/ontologies/Domain#straightLine
Subclass of	horizontalGeometry
Comments	DEF: A HorizontalGeometry that runs as a straight line in the associated coordinate system.

sunAzimuth



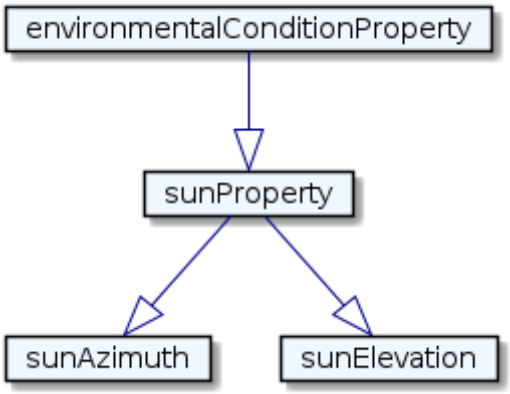
Element	Description
Type	Class
Name	sunAzimuth
IRI	http://ontology.asam.net/ontologies/Domain#sunAzimuth
Subclass of	sunProperty
Comments	DEF: A sunProperty that is the azimuth angle of the sun's position. It is defined as the angle between a line due south and the shadow cast by a vertical rod on Earth.

sunElevation



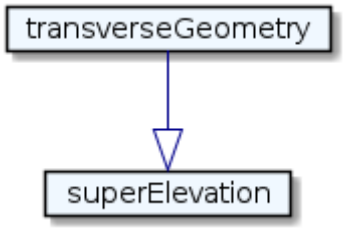
Element	Description
Type	Class
Name	sunElevation
IRI	http://ontology.asam.net/ontologies/Domain#sunElevation
Subclass of	sunProperty
Comments	DEF: A sunProperty that is the solar zenith angle, which is defined as the angle between the sun's rays and the vertical direction. It is complementary to the solar altitude angle, which is the angle between the sun's rays and a horizontal plane.

sunProperty



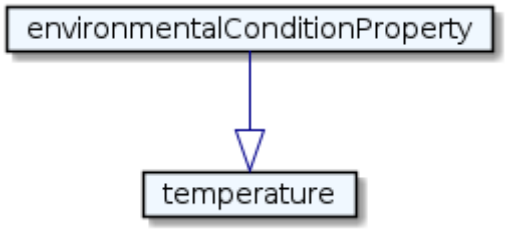
Element	Description
Type	Class
Name	sunProperty
IRI	http://ontology.asam.net/ontologies/Domain#sunProperty
Subclass of	environmentalConditionProperty
Comments	DEF: An ambientConditionProperty that defines characteristics of the sun, for example, azimuth and elevation.

superElevation



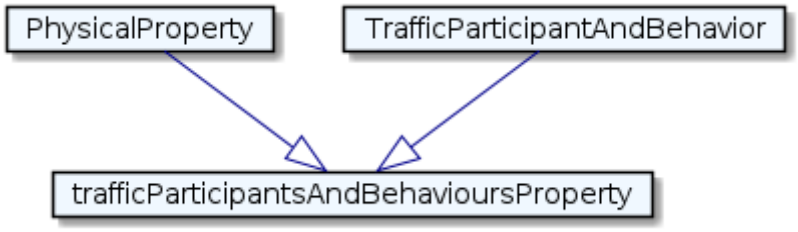
Element	Description
Type	Class
Name	superElevation
IRI	http://ontology.asam.net/ontologies/Domain#superElevation
Subclass of	transverseGeometry
Comments	DEF: A TransverseGeometry the specifies the cross slope of a road, meaning the roll angle of the road cross section around a reference line.

temperature



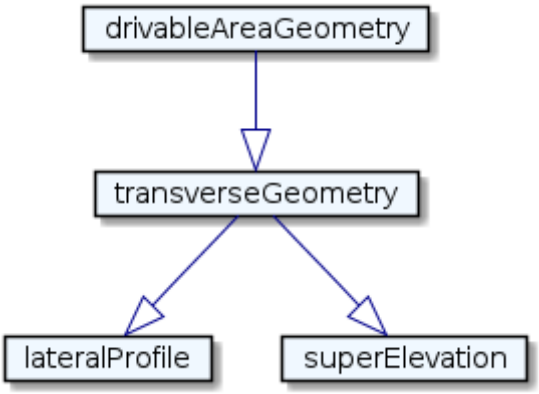
Element	Description
Type	Class
Name	temperature
IRI	http://ontology.asam.net/ontologies/Domain#temperature
Subclass of	environmentalConditionProperty
Comments	DEF: An ambientConditionProperty that describes how warm or cold it is. Temperature is given in one of the following units: Kelvin [K], Celsius[⍰] or Fahrenheit [⍰].

trafficParticipantsAndBehavioursProperty



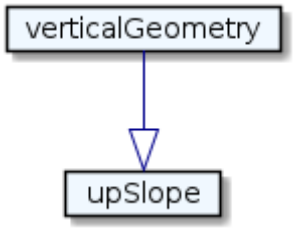
Element	Description
Type	Class
Name	trafficParticipantsAndBehavioursProperty
IRI	http://ontology.asam.net/ontologies/Domain#trafficParticipantsAndBehavioursProperty
Subclass of	PhysicalProperty
Subclass of	TrafficParticipantAndBehavior

transverseGeometry



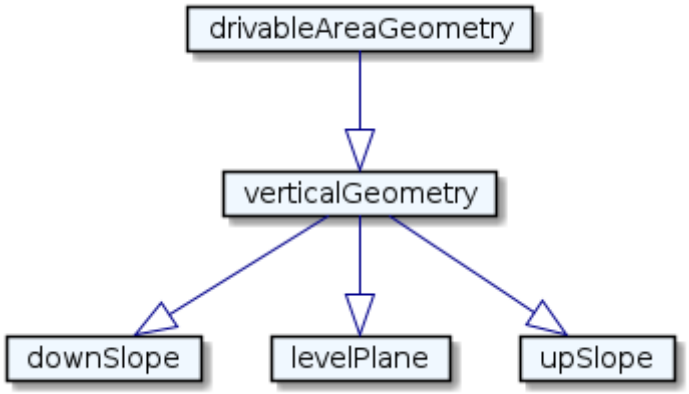
Element	Description
Type	Class
Name	transverseGeometry
IRI	http://ontology.asam.net/ontologies/Domain#transverseGeometry
Subclass of	drivableAreaGeometry
Comments	DEF: A DrivableAreaGeometry in the cross-section plane; the transverse profile

upSlope



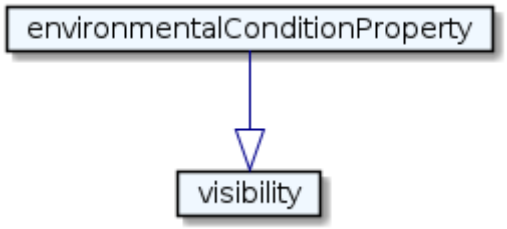
Element	Description
Type	Class
Name	upSlope
IRI	http://ontology.asam.net/ontologies/Domain#upSlope
Subclass of	verticalGeometry
Comments	DEF: A VerticalGeometry that is a plane with positive gradient. It represents an ascending elevation of the road in driving direction.

verticalGeometry



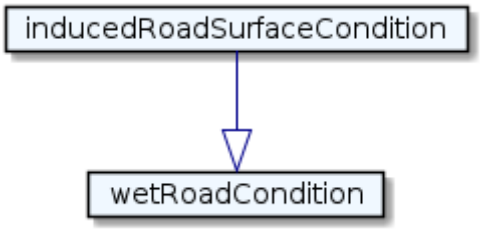
Element	Description
Type	Class
Name	verticalGeometry
IRI	http://ontology.asam.net/ontologies/Domain#verticalGeometry
Subclass of	drivableAreaGeometry
Comments	DEF: A DrivableAreaGeometry in the vertical (longitudinal) plane

visibility



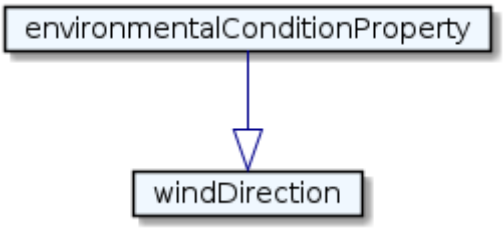
Element	Description
Type	Class
Name	visibility
IRI	http://ontology.asam.net/ontologies/Domain#visibility
Subclass of	environmentalConditionProperty
Comments	DEF: An ambientConditionProperty type that specifies the distance at which a thing can be clearly discerned. The distance may be specified in meters, kilometers, or miles.

wetRoadCondition



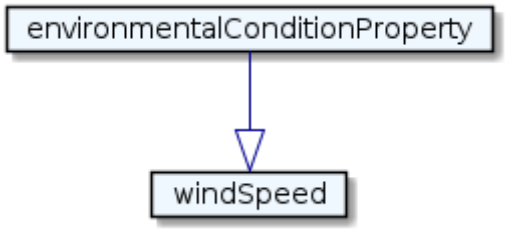
Element	Description
Type	Class
Name	wetRoadCondition
IRI	http://ontology.asam.net/ontologies/Domain#wetRoadCondition
Subclass of	inducedRoadSurfaceCondition
Comments	DEF: An InducedRoadSurfaceCondition where the road is covered with a thin layer of water. This can lower the friction coefficent.

windDirection



Element	Description
Type	Class
Name	windDirection
IRI	http://ontology.asam.net/ontologies/Domain#windDirection
Subclass of	environmentalConditionProperty
Comments	DEF: An ambientConditionProperty that characterizes the direction from which the wind is coming. The direction may be specified as cardinal direction or in degrees. Example: Wind coming from the North is defined as a wind direction of 0° or 360°.

windSpeed



Element	Description
Type	Class
Name	windSpeed
IRI	http://ontology.asam.net/ontologies/Domain#windSpeed
Subclass of	environmentalConditionProperty
Comments	DEF: An ambientConditionProperty that defines how strong the wind is blowing. Wind speed is given in m/s.

Properties