

DATEX II profile for Network Management dynamic

ASFINAG

Version 00-01-00

A.1 Overview

ASFINAG provides DATEX II traffic information of Austrian motorways for service providers and other interested institutions. This profile describes the message content for the Network Management. Note that the publication is two-folded: A static part (PredefinedLocationsPublication, no separate document on this) and a dynamic part (this document). Further note, that it is possible to omit the static part in case location referencing is done in the dynamic part (single file solution) using the Level B extension LinearByCoordinates (included in the corresponding dynamic schema, but not in this document either).

In essence, this document covers both the two-file and the single-file solution, as the main content does not differ between these solutions.

The static file is only described in pictures at the end of this document.

ASFINAG specific documentation (for example the basis of computation) is accentuated in colour.

A.2 Data Dictionary for “ASFINAG Network Management dynamic”

A.2.1 "GroupOfLocations" package

A.2.1.1 "GroupOfLocations" package classes

Class name	Designation	Definition	Stereotype	Abstract
GroupOfLocations	Group of locations	One or more physically separate locations. Multiple locations may be related, as in an itinerary (or route), or may be unrelated. It is not for identifying the same physical location using different Location objects for different referencing systems.		yes
Location	Location	The specification of a location either on a network (as a point or a linear location) or as an area. This may be provided in one or more referencing systems.		yes
LocationByReference	Location by reference	A location defined by reference to a predefined location.		no

Class name	Designation	Definition	Stereotype	Abstract
NetworkLocation	Network location	The specification of a location on a network (as a point or a linear location).		yes

Table 1— Classes of the "GroupOfLocations" package

A.2.1.2 "GroupOfLocations" package association roles

Class name	Role name	Designation	Definition	Multiplicity	Target
Itinerary	routeDestination	Route destination	Destination of a route or final location in an itinerary.	0..*	Destination
ItineraryByIndexedLocations	locationContainedInItinerary	Location contained in itinerary	A location contained in an itinerary (i.e. an ordered set of locations defining a route or itinerary).	1..1	Location
Location	locationForDisplay	Location for display	A location which may be used by clients for visual display on user interfaces.	0..1	PointCoordinates
NonOrderedLocationGroupByList	locationContainedInGroup	Location contained in group	A location contained in a non ordered group of locations.	2..*	Location

Table 2— Associations of the "GroupOfLocations" package

A.2.1.3 "GroupOfLocations" package attributes

Class name	Attribute name	Designation	Definition	Multiplicity	Type
LocationByReference	predefinedLocationReference	Predefined location reference	A reference to a versioned predefined location. ASFINAG: This class & this attribute will only be used in a two-file solution (i.e. together with a static file with predefined locations), not with the 'single file solution'	1..1	VersionedReference

Table 3— Attributes of the "GroupOfLocations" package

A.2.2 "Impact" package

A.2.2.1 "Impact" package classes

Class name	Designation	Definition	Stereotype	Abstract
Impact	Impact	An assessment of the impact that an event or operator action defined by the situation record has on the driving conditions.		no

Table 4— Classes of the "Impact" package

A.2.2.2 "Impact" package association roles

There are no defined association roles in the "Impact" package.

A.2.2.3 "Impact" package attributes

Class name	Attribute name	Designation	Definition	Multiplicity	Type
Impact	capacityRemaining	Capacity remaining	The ratio of current capacity to the normal (free flow) road capacity in the defined direction, expressed as a percentage. Capacity is the maximum number of vehicles that can pass a specified point on the road, in unit time given the specified conditions.	0..1	Percentage
	numberOfLanesRestricted	Number of lanes restricted	The number of normally usable lanes on the carriageway which are now restricted either fully or partially (this may include the hard shoulder if it is normally available for operational use, e.g. in hard shoulder running schemes).	0..1	NonNegativeInteger
	numberOfOperationalLanes	Number of operational lanes	The number of usable lanes in the specified direction which remain fully operational (this may include the hard shoulder if it is being used as an operational lane).	0..1	NonNegativeInteger
	originalNumberOfLanes	Original number of lanes	The normal number of usable lanes in the specified direction that the carriageway has before reduction due to roadworks or traffic events.	0..1	NonNegativeInteger
	residualRoadWidth	Residual road width	The total width of the combined operational lanes in the specified direction.	0..1	MetresAsFloat
	trafficConstrictionType	Traffic constriction type	The type of constriction to which traffic is subjected as a result of an event or operator action.	0..1	TrafficConstrictionTypeEnum

Table 5— Attributes of the "Impact" package

A.2.3 "NetworkManagement" package

A.2.3.1 "NetworkManagement" package classes

Class name	Designation	Definition	Stereotype	Abstract
GeneralInstructionOrMessageToRoadUsers	General instruction or message to road users	General instruction and/or message that is issued by the network/road operator which is applicable to drivers and sometimes passengers.		no
GeneralNetworkManagement	General network management	Network management action that is instigated either manually or automatically by the network/road operator. Compliance with any resulting control may be advisory or mandatory.		no
NetworkManagement	Network management	Network management action which is applicable to the road network and its users.		yes
RoadOrCarriagewayOrLaneManagement	Road or carriageway or lane management	Road, carriageway or lane management action that is instigated by the network/road operator.		no
SpeedManagement	Speed management	Speed management action that is instigated by the network/road operator.		no
WinterDrivingManagement	Winter driving management	Winter driving management action that is instigated by the network/road operator.		no

Table 6— Classes of the "NetworkManagement" package

A.2.3.2 "NetworkManagement" package association roles

Class name	Role name	Designation	Definition	Multiplicity	Target
NetworkManagement	forVehiclesWithCharacteristicsOf	For vehicles with characteristics of	The characteristics of those vehicles for which the network management is applicable.	0..*	VehicleCharacteristics

Table 7— Associations of the "NetworkManagement" package

A.2.3.3 "NetworkManagement" package attributes

Class name	Attribute name	Designation	Definition	Multiplicity	Type
GeneralInstructionOrMessageToRoadUsers	generalInstructionToRoadUsersType	General instruction to road users type	General instruction that is issued by the network/road operator which is applicable to drivers and sometimes passengers.	0..1	GeneralInstructionToRoadUsersTypeEnum

Class name	Attribute name	Designation	Definition	Multiplicity	Type
	generalMessageToRoadUsers	General message to road users	General message that is issued by the network/road operator which is applicable to drivers and sometimes passengers, e.g. details about an amber alert (missing or abducted child alert).	0..1	MultilingualString
GeneralNetworkManagement	generalNetworkManagementType	General network management type	The type of traffic management action instigated by the network/road operator.	1..1	GeneralNetworkManagementTypeEnum
	trafficManuallyDirectedBy	Traffic manually directed by	Type of person that is manually directing traffic (applicable if generalNetworkManagementType is set to "trafficBeingManuallyDirected").	0..1	PersonCategoryEnum
NetworkManagement	applicableForTrafficDirection	Applicable for traffic direction	The ultimate traffic direction to which the network management is applicable.	0..*	DirectionEnum
	applicableForTrafficType	Applicable for traffic type	The type of traffic to which the network management is applicable.	0..*	TrafficTypeEnum
	automaticallyInitiated	Automatically initiated	Defines whether the network management is initiated by an automatic system.	0..1	Boolean
	complianceOption	Compliance option	Defines whether the network management instruction or the control resulting from a network management action is advisory or mandatory.	1..1	ComplianceOptionEnum
	placesAtWhichApplicable	Places at which applicable	Places, in generic terms, at which the network management applies.	0..*	PlacesEnum
RoadOrCarriagewayOrLaneManagement	minimumCarOccupancy	Minimum car occupancy	The minimum number of persons required in a vehicle in order for it to be allowed to transit the specified road section.	0..1	NonNegativeInteger
	roadOrCarriagewayOrLaneManagementType	Road or carriageway or lane management type	Type of road, carriageway or lane management action instigated by operator.	1..1	RoadOrCarriagewayOrLaneManagementTypeEnum
SpeedManagement	speedManagementType	Speed management type	Type of speed management action instigated by operator.	0..1	SpeedManagementTypeEnum

Class name	Attribute name	Designation	Definition	Multiplicity	Type
	temporarySpeedLimit	Temporary speed limit	Temporary limit defining the maximum advisory or mandatory speed of vehicles.	0..1	KilometresPerHour
WinterDrivingManagement	winterEquipmentManagementType	Winter equipment management type	Type of winter equipment management action instigated by operator.	1..1	WinterEquipmentManagementTypeEnum

Table 8— Attributes of the "NetworkManagement" package

A.2.4 "OperatorAction" package

A.2.4.1 "OperatorAction" package classes

Class name	Designation	Definition	Stereotype	Abstract
OperatorAction	Operator action	Actions that a traffic operator can decide to implement to prevent or help correct dangerous or poor driving conditions, including maintenance of the road infrastructure.		no

Table 9— Classes of the "OperatorAction" package

A.2.4.2 "OperatorAction" package association roles

There are no defined association roles in the "OperatorAction" package.

A.2.4.3 "OperatorAction" package attributes

Class name	Attribute name	Designation	Definition	Multiplicity	Type
OperatorAction	actionOrigin	Action origin	Indicates whether the actions to be undertaken by the operator are the result of an internal operation or external influence.	0..1	OperatorActionOriginEnum
	actionPlanIdentifier	Action plan identifier	The identifier of the traffic management action plan to which this action relates.	0..1	String
	operatorActionStatus	Operator action status	The status of the defined operator action.	0..1	OperatorActionStatusEnum

Table 10— Attributes of the "OperatorAction" package

A.2.5 "SituationPublication" package

A.2.5.1 "SituationPublication" package classes

Class name	Designation	Definition	Stereotype	Abstract
Situation	Situation	An identifiable instance of a traffic/travel situation comprising one or more traffic/travel circumstances which are linked by one or more causal relationships. Each traffic/travel circumstance is represented by a Situation Record.	versionedIdentifiable	no
SituationPublication	Situation publication	A publication containing zero or more traffic/travel situations.		no

Table 11— Classes of the "SituationPublication" package

A.2.5.2 "SituationPublication" package association roles

There are no defined association roles in the "SituationPublication" package.

A.2.5.3 "SituationPublication" package attributes

There are no defined attributes in the "SituationPublication" package.

A.2.6 "SituationRecord" package

A.2.6.1 "SituationRecord" package classes

Class name	Designation	Definition	Stereotype	Abstract
Comment	Comment	A free text comment with an optional date/time stamp that can be used by the operator to convey un-coded observations/information.		no
SituationRecord	Situation record	An identifiable versioned instance of a single record/element within a situation.	versionedIdentifiable	yes

Table 12— Classes of the "SituationRecord" package

A.2.6.2 "SituationRecord" package association roles

Class name	Role name	Designation	Definition	Multiplicity	Target
SituationRecord	generalPublicComment	General public comment	A comment which may be freely distributed to the general public	0..*	Comment
	nonGeneralPublicComment	Non general public comment	A comment which should not be distributed to the general public.	0..*	Comment

Table 13— Associations of the "SituationRecord" package

A.2.6.3 "SituationRecord" package attributes

Class name	Attribute name	Designation	Definition	Multiplicity	Type
Comment	comment	Comment	A free text comment that can be used by the operator to convey un-coded observations/information.	1..1	MultilingualString
	commentDateTime	Comment date time	The date/time at which the comment was made.	0..1	DateTime
	commentType	Comment type	A classification of the the type of comment.	0..1	CommentTypeEnum
SituationRecord	confidentialityOverride	Confidentiality override	The extent to which the related information may be circulated, according to the recipient type. Recipients must comply with this confidentiality statement. This overrides any confidentiality defined for the situation as a whole in the header information.	0..1	ConfidentialityValueEnum
	probabilityOfOccurrence	Probability of occurrence	An assessment of the degree of likelihood that the reported event will occur.	1..1	ProbabilityOfOccurrenceEnum
	severity	Severity	The assessment of the impact (in terms of severity) that this element of the situation is having, or will have, on the traffic flow as perceived by the supplier.	0..1	SeverityEnum
	situationRecordCreationReference	Situation record creation reference	A unique alphanumeric reference (either an external reference or GUID) of the SituationRecord object (the first version of the record) that was created by the original supplier.	0..1	String
	situationRecordCreationTime	Situation record creation time	The date/time that the SituationRecord object (the first version of the record) was created by the original supplier.	1..1	DateTime
	situationRecordFirstSupplierVersionTime	Situation record first supplier version time	The date/time that the current version of the Situation Record was written into the database of the original supplier in the supply chain.	0..1	DateTime

Class name	Attribute name	Designation	Definition	Multiplicity	Type
	situationRecordObservationTime	Situation record observation time	The date/time that the information represented by the current version of the SituationRecord was observed by the original (potentially external) source of the information.	0..1	DateTime
	situationRecordVersionTime	Situation record version time	The date/time that this current version of the SituationRecord within the situation was written into the database of the supplier which is involved in the data exchange. Identity and version of record are defined by the class stereotype implementation.	1..1	DateTime

Table 14— Attributes of the "SituationRecord" package

A.2.7 "Validity" package

A.2.7.1 "Validity" package classes

Class name	Designation	Definition	Stereotype	Abstract
OverallPeriod	Overall period	A continuous or discontinuous period of validity defined by overall bounding start and end times and the possible intersection of valid periods (potentially recurring) with the complement of exception periods (also potentially recurring).		no
Validity	Validity	Specification of validity, either explicitly or by a validity time period specification which may be discontinuous.		no

Table 15— Classes of the "Validity" package

A.2.7.2 "Validity" package association roles

Class name	Role name	Designation	Definition	Multiplicity	Target
Validity	validityTimeSpecification	Validity time specification	A specification of periods of validity defined by overall bounding start and end times and the possible intersection of valid periods with exception periods (exception periods overriding valid periods).	1..1	OverallPeriod

Table 16— Associations of the "Validity" package

A.2.7.3 "Validity" package attributes

Class name	Attribute name	Designation	Definition	Multiplicity	Type
OverallPeriod	overallEndTime	Overall end time	End of bounding period of validity defined by date and time.	0..1	DateTime
	overallStartTime	Overall start time	Start of bounding period of validity defined by date and time.	1..1	DateTime
Validity	overrunning	Overrunning	The activity or action described by the SituationRecord is still in progress, overrunning its planned duration as indicated in a previous version of this record.	0..1	Boolean
	validityStatus	Validity status	Specification of validity, either explicitly overriding the validity time specification or confirming it.	1..1	ValidityStatusEnum

Table 17— Attributes of the "Validity" package

A.2.8 "VehicleCharacteristics" package

A.2.8.1 "VehicleCharacteristics" package classes

Class name	Designation	Definition	Stereotype	Abstract
GrossWeightCharacteristic	Gross weight characteristic	Gross weight characteristic of a vehicle.		no
HeaviestAxleWeightCharacteristic	Heaviest axle weight characteristic	Weight characteristic of the heaviest axle on the vehicle.		no
HeightCharacteristic	Height characteristic	Height characteristic of a vehicle.		no
LengthCharacteristic	Length characteristic	Length characteristic of a vehicle.		no
NumberOfAxlesCharacteristic	Number of axles characteristic	Number of axles characteristic of a vehicle.		no
VehicleCharacteristics	Vehicle characteristics	The characteristics of a vehicle, e.g. lorry of gross weight greater than 30 tonnes.		no
WidthCharacteristic	Width characteristic	Width characteristic of a vehicle.		no

Table 18— Classes of the "VehicleCharacteristics" package

A.2.8.2 "VehicleCharacteristics" package association roles

There are no defined association roles in the "VehicleCharacteristics" package.

A.2.8.3 "VehicleCharacteristics" package attributes

Class name	Attribute name	Designation	Definition	Multiplicity	Type
GrossWeightCharacteristic	comparisonOperator	Comparison operator	The operator to be used in the vehicle characteristic comparison operation.	1..1	ComparisonOperatorEnum
	grossVehicleWeight	Gross vehicle weight	The gross weight of the vehicle and its load, including any trailers.	1..1	Tonnes
HeaviestAxleWeightCharacteristic	comparisonOperator	Comparison operator	The operator to be used in the vehicle characteristic comparison operation.	1..1	ComparisonOperatorEnum
	heaviestAxleWeight	Heaviest axle weight	The weight of the heaviest axle on the vehicle.	1..1	Tonnes
HeightCharacteristic	comparisonOperator	Comparison operator	The operator to be used in the vehicle characteristic comparison operation.	1..1	ComparisonOperatorEnum
	vehicleHeight	Vehicle height	The height of the highest part, excluding antennae, of an individual vehicle above the road surface, in metres.	1..1	MetresAsFloat
LengthCharacteristic	comparisonOperator	Comparison operator	The operator to be used in the vehicle characteristic comparison operation.	1..1	ComparisonOperatorEnum
	vehicleLength	Vehicle length	The overall distance between the front and back of an individual vehicle, including the length of any trailers, couplings, etc.	1..1	MetresAsFloat
NumberOfAxlesCharacteristic	comparisonOperator	Comparison operator	The operator to be used in the vehicle characteristic comparison operation.	1..1	ComparisonOperatorEnum
	numberOfAxles	Number of axles	The total number of axles of an individual vehicle.	1..1	NonNegativeInteger
VehicleCharacteristics	fuelType	Fuel type	The type of fuel used by the vehicle.	0..1	FuelTypeEnum
	loadType	Load type	The type of load carried by the vehicle, especially in respect of hazardous loads.	0..1	LoadTypeEnum

Class name	Attribute name	Designation	Definition	Multiplicity	Type
	vehicleEquipment	Vehicle equipment	The type of equipment in use or on board the vehicle.	0..1	VehicleEquipmentEnum
	vehicleType	Vehicle type	Vehicle type.	0..*	VehicleTypeEnum
	vehicleUsage	Vehicle usage	The type of usage of the vehicle (i.e. for what purpose is the vehicle being used).	0..1	VehicleUsageEnum
WidthCharacteristic	comparisonOperator	Comparison operator	The operator to be used in the vehicle characteristic comparison operation.	1..1	ComparisonOperatorEnum
	vehicleWidth	Vehicle width	The maximum width of an individual vehicle, in metres.	1..1	MetresAsFloat

Table 19— Attributes of the "VehicleCharacteristics" package

A.3 Data Dictionary of <<datatype>> for “ASFINAG Network Management dynamic”

This clause contains the definitions of all data types which are used in the “ASFINAG Network Management dynamic”.

A.3.1 The <<datatype>> "KilometresPerHour"

A measure of speed defined in kilometres per hour.

A.3.2 The <<datatype>> "MetresAsFloat"

A measure of distance defined in metres in a floating point format.

A.3.3 The <<datatype>> "Percentage"

A measure of percentage.

A.3.4 The <<datatype>> "Tonnes"

A measure of weight defined in metric tonnes.

A.4 Data Dictionary of <<enumerations>> for “ASFINAG Network Management dynamic”

This clause contains the definitions of all enumerations which are used in the “ASFINAG Network Management dynamic”.

A.4.1 The <<enumeration>> "CommentTypeEnum"

Classification of comment types.

Enumerated value name	Designation	Definition
abnormalLoadMovementNote	Abnormal load movement note	A free text human oriented note describing details of abnormal load movements associated with the SituationRecord.
dataProcessingNote	Data processing note	A free text human oriented note describing the way the information in the SituationRecord has been or should be processed.
description	Description	A free text human oriented description of the situation element defined by the SituationRecord.
internalNote	Internal note	A free text human oriented note that supports internal traffic control operations relating to the situation element defined by the SituationRecord.
locationDescriptor	Location descriptor	A free text human oriented description of the location of the situation element defined by the SituationRecord.
other	Other	Other than as defined in this enumeration.
warning	Warning	A free text human oriented warning relating to the SituationRecord, such as advising the recipient that an advanced warning on VMS should be activated.

Table 20— Values contained in the enumeration "CommentTypeEnum"

A.4.2 The <<enumeration>> "ComparisonOperatorEnum"

Logical comparison operations.

Enumerated value name	Designation	Definition
equalTo	Equal to	Logical comparison operator of "equal to".
greaterThan	Greater than	Logical comparison operator of "greater than".

Enumerated value name	Designation	Definition
greaterThanOrEqualTo	Greater than or equal to	Logical comparison operator of "greater than or equal to".
lessThan	Less than	Logical comparison operator of "less than".
lessThanOrEqualTo	Less than or equal to	Logical comparison operator of "less than or equal to".

Table 21— Values contained in the enumeration "ComparisonOperatorEnum"

A.4.3 The <<enumeration>> "ComplianceOptionEnum"

Types of compliance.

Enumerated value name	Designation	Definition
advisory	Advisory	Advisory compliance.
mandatory	Mandatory	Mandatory compliance.

Table 22— Values contained in the enumeration "ComplianceOptionEnum"

A.4.4 The <<enumeration>> "ConfidentialityValueEnum"

Values of confidentiality.

Enumerated value name	Designation	Definition
internalUse	Internal use	For internal use only of the recipient organisation.
noRestriction	No restriction	No restriction on usage.
restrictedToAuthorities	Restricted to authorities	Restricted for use only by authorities.
restrictedToAuthoritiesAndTrafficOperators	Restricted to authorities and traffic operators	Restricted for use only by authorities and traffic operators.
restrictedToAuthoritiesTrafficOperatorsAndPublishers	Restricted to authorities traffic operators and publishers	Restricted for use only by authorities, traffic operators and publishers (service providers).
restrictedToAuthoritiesTrafficOperatorsAndVms	Restricted to authorities traffic operators and VMS	Restricted for use only by authorities, traffic operators, publishers (service providers) and variable message signs.

Table 23— Values contained in the enumeration "ConfidentialityValueEnum"

A.4.5 The <<enumeration>> "DirectionEnum"

List of directions of travel.

Enumerated value name	Designation	Definition
allDirections	All directions	All directions (where more than two are applicable) at this point on the road network.
anticlockwise	Anticlockwise	Anti-clockwise.
bothWays	Both ways	Both directions that are applicable at this point on the road network.
clockwise	Clockwise	Clockwise.
eastBound	East bound	East bound general direction.
inboundTowardsTown	Inbound towards town	Heading towards town centre direction of travel.
innerRing	Inner ring	Inner ring direction.
northBound	North bound	North bound general direction.
northEastBound	North east bound	North east bound general direction.
northWestBound	North west bound	North west bound general direction.
opposite	Opposite	Opposite direction to the normal direction of flow at this point on the road network.
other	Other	Other than as defined in this enumeration.
outboundFromTown	Outbound from town	Heading out of or away from the town centre direction of travel.
outerRing	Outer ring	Outer ring direction.
southBound	South bound	South bound general direction.
southEastBound	South east bound	South east bound general direction.
southWestBound	South west bound	South west bound general direction.
unknown	Unknown	Direction is unknown.
westBound	West bound	West bound general direction.

Table 24— Values contained in the enumeration "DirectionEnum"

A.4.6 The <<enumeration>> "FuelTypeEnum"

Type of fuel used by a vehicle.

Enumerated value name	Designation	Definition
battery	Battery	Battery.
biodiesel	Biodiesel	Biodiesel.
diesel	Diesel	Diesel.
dieselBatteryHybrid	Diesel battery hybrid	Diesel and battery hybrid.
ethanol	Ethanol	Ethanol.
hydrogen	Hydrogen	Hydrogen.
liquidGas	Liquid gas	Liquid gas of any type including LPG.
lpg	LPG	Liquid petroleum gas.
methane	Methane	Methane gas.
petrol	Petrol	Petrol.
petrolBatteryHybrid	Petrol battery hybrid	Petrol and battery hybrid.

Table 25— Values contained in the enumeration "FuelTypeEnum"

A.4.7 The <<enumeration>> "GeneralInstructionToRoadUsersTypeEnum"

General instructions that may be issued to road users (specifically drivers and sometimes passengers) by an operator or operational system in support of network management activities or emergency situations.

Enumerated value name	Designation	Definition
allowEmergencyVehiclesToPass	Allow emergency vehicles to pass	Allow emergency vehicles to pass.
approachWithCare	Approach with care	Approach with care.
avoidTheArea	Avoid the area	Drivers are to avoid the area.
closeAllWindowsTurnOffHeaterAnd Vents	Close all windows turn off heater and vents	Close all windows and turn off heater and vents.
crossJunctionWithCare	Cross junction with care	Cross junction with care.
doNotAllowUnnecessaryGaps	Do not allow unnecessary gaps	Do not allow unnecessary gaps.

Enumerated value name	Designation	Definition
doNotLeaveYourVehicle	Do not leave your vehicle	Do not leave your vehicle.
doNotThrowOutAnyBurningObjects	Do not throw out any burning objects	Do not throw out any burning objects.
doNotUseNavigationSystems	Do not use navigation systems	Do not use navigation systems to determine routing.
driveCarefully	Drive carefully	Drive carefully.
driveWithExtremeCaution	Drive with extreme caution	Drive with extreme caution.
flashYourLights	Flash your lights	Flash your lights to warn oncoming traffic of hazard ahead.
followTheVehicleInFrontSmoothly	Follow the vehicle in front smoothly	Follow the vehicle in front, smoothly.
increaseNormalFollowingDistance	Increase normal following distance	Increase normal following distance.
inEmergencyWaitForPatrolService	In emergency wait for patrol service	In emergency, wait for patrol service (either road operator or police patrol service).
keepYourDistance	Keep your distance	Keep your distance.
leaveYourVehicleProceedToNextSafePlace	Leave your vehicle proceed to next safe place	Leave your vehicle and proceed to next safe place.
noNakedFlames	No naked flames	No naked flames.
noOvertaking	No overtaking	No overtaking on the specified section of road.
noSmoking	No smoking	No smoking.
noStopping	No stopping	No stopping.
noUturns	No U-turns	No U-turns.
observeAmberAlert	Observe amber alert	Observe current amber alert (an emergency alert issued for a missing or abducted child).
observeSignals	Observe signals	Observe signals.
observeSigns	Observe signs	Observe signs.
onlyTravelIfAbsolutelyNecessary	Only travel if absolutely necessary	Only travel if absolutely necessary.
other	Other	Other than as defined in this enumeration.
overtakeWithCare	Overtake with care	Overtake with care.
pullOverToTheEdgeOfTheRoadway	Pull over to the edge of the roadway	Pull over to the edge of the roadway.
stopAtNextSafePlace	Stop at next safe place	Stop at next safe place.

Enumerated value name	Designation	Definition
stopAtNextServiceArea	Stop at next service area	Stop at next rest service area or car park.
switchOffEngine	Switch off engine	Switch off engine.
switchOffMobilePhonesAndTwoWayRadios	Switch off mobile phones and two way radios	Switch off mobile phones and two-way radios.
testYourBrakes	Test your brakes	Test your brakes.
useBusService	Use bus service	Use bus service.
useFogLights	Use fog lights	Use fog lights.
useHazardWarningLights	Use hazard warning lights	Use hazard warning lights.
useHeadlights	Use headlights	Use headlights.
useRailService	Use rail service	Use rail service.
useTramService	Use tram service	Use tram service.
useUndergroundService	Use underground service	Use underground service.
waitForEscortVehicle	Wait for escort vehicle	Wait for escort vehicle.

Table 26— Values contained in the enumeration "GeneralInstructionToRoadUsersTypeEnum"

A.4.8 The <<enumeration>> "GeneralNetworkManagementTypeEnum"

Types of network management actions.

Enumerated value name	Designation	Definition
bridgeSwingInOperation	Bridge swing in operation	The bridge at the specified location has swung or lifted and is therefore temporarily closed to traffic.
convoyService	Convoy service	A convoy service is in operation.
obstacleSignalling	Obstacle signalling	Signs are being put out before or around an obstacle to protect drivers.
other	Other	Other than as defined in this enumeration.
rampMeteringInOperation	Ramp metering in operation	Ramp metering is now active at the specified location.

Enumerated value name	Designation	Definition
temporaryTrafficLights	Temporary traffic lights	Traffic is being controlled by temporary traffic lights (red-yellow-green or red-green).
tollGatesOpen	Toll gates open	Toll gates are open with no fee collection at the specified location.
trafficBeingManuallyDirected	Traffic being manually directed	Traffic is being manually directed.
trafficHeld	Traffic held	Traffic in the specified direction is temporarily held up due to an unplanned event (e.g. for clearance of wreckage following an accident).

Table 27— Values contained in the enumeration "GeneralNetworkManagementTypeEnum"

A.4.9 The <<enumeration>> "LoadTypeEnum"

Types of load carried by a vehicle.

Enumerated value name	Designation	Definition
abnormalLoad	Abnormal load	A load that exceeds normal vehicle dimensions in terms of height, length, width, gross vehicle weight or axle weight or any combination of these. Generally termed an "abnormal load".
ammunition	Ammunition	Ammunition.
chemicals	Chemicals	Chemicals of unspecified type.
combustibleMaterials	Combustible materials	Combustible materials of unspecified type.
corrosiveMaterials	Corrosive materials	Corrosive materials of unspecified type.
debris	Debris	Debris of unspecified type.
empty	Empty	No load.
explosiveMaterials	Explosive materials	Explosive materials of unspecified type.
extraHighLoad	Extra high load	A load of exceptional height.
extraLongLoad	Extra long load	A load of exceptional length.
extraWideLoad	Extra wide load	A load of exceptional width.
fuel	Fuel	Fuel of unspecified type.
glass	Glass	Glass.
goods	Goods	Any goods of a commercial nature.

Enumerated value name	Designation	Definition
hazardousMaterials	Hazardous materials	Materials classed as being of a hazardous nature.
liquid	Liquid	Liquid of an unspecified nature.
livestock	Livestock	Livestock.
materials	Materials	General materials of unspecified type.
materialsDangerousForPeople	Materials dangerous for people	Materials classed as being of a danger to people or animals.
materialsDangerousForTheEnvironment	Materials dangerous for the environment	Materials classed as being potentially dangerous to the environment.
materialsDangerousForWater	Materials dangerous for water	Materials classed as being dangerous when exposed to water (e.g. materials which may react exothermically with water).
oil	Oil	Oil.
ordinary	Ordinary	Materials that present limited environmental or health risk. Non-combustible, non-toxic, non-corrosive.
other	Other	Other than as defined in this enumeration.
perishableProducts	Perishable products	Products or produce that will significantly degrade in quality or freshness over a short period of time.
petrol	Petrol	Petrol or petroleum.
pharmaceuticalMaterials	Pharmaceutical materials	Pharmaceutical materials.
radioactiveMaterials	Radioactive materials	Materials that emit significant quantities of electromagnetic radiation that may present a risk to people, animals or the environment.
refuse	Refuse	Refuse.
toxicMaterials	Toxic materials	Materials of a toxic nature which may damage the environment or endanger public health.
vehicles	Vehicles	Vehicles of any type which are being transported.

Table 28— Values contained in the enumeration "LoadTypeEnum"

A.4.10 The <<enumeration>> "OperatorActionOriginEnum"

Origins of operator actions.

Enumerated value name	Designation	Definition
external	External	Operator action originated externally to the authority which is taking the action.
internal	Internal	Operator action originated within the authority which is taking the action.

Table 29— Values contained in the enumeration "OperatorActionOriginEnum"

A.4.11 The <<enumeration>> "OperatorActionStatusEnum"

List of statuses associated with operator actions.

Enumerated value name	Designation	Definition
approved	Approved	The action has been approved by the recipient of the request but activity to implement the action has not yet commenced.
beingImplemented	Being implemented	The action is in the process of being implemented.
beingTerminated	Being terminated	The action is in the process of being terminated either because the action has reached the end of its validity period or because new circumstances have arisen and its termination has been requested, e.g. because of a traffic jam on the alternative route.
implemented	Implemented	The action is fully implemented.
rejected	Rejected	The action has been rejected by the recipient of the request and hence is not implemented.
requested	Requested	A request, either internal or external, has been received to implement an action. It has neither been approved nor has any activity yet been undertaken to implement the action.
terminationRequested	Termination requested	A request, either internal or external, has been received to terminate the action, but activity to terminate the action has not yet commenced.

Table 30— Values contained in the enumeration "OperatorActionStatusEnum"

A.4.12 The <<enumeration>> "PersonCategoryEnum"

Categories of person.

Enumerated value name	Designation	Definition
adult	Adult	Adult.
child	Child	Child (age 4 to 17).
emergencyServicesPerson	Emergency services person	A member of the emergency services, other than the police.
fireman	Fireman	A member of the fire service.
infant	Infant	Infant (age 0 to 3).
medicalStaff	Medical staff	A member of the medical service.
memberOfThePublic	Member of the public	A member of the general public.
policeman	Policeman	A member of the police force.
politician	Politician	A politician.
publicTransportPassenger	Public transport passenger	A passenger on or from a public transport vehicle.
sickPerson	Sick person	A sick person.
trafficOfficer	Traffic officer	A traffic patrol officer of the road authority.
trafficWarden	Traffic warden	A member of the local traffic warden service.
veryImportantPerson	Very important person	A very important person.

Table 31— Values contained in the enumeration "PersonCategoryEnum"

A.4.13 The <<enumeration>> "PlacesEnum"

List of types of places.

Enumerated value name	Designation	Definition
aroundBendsInTheRoad	Around bends in the road	Around bends in the road.
atCustomsPosts	At customs posts	At customs posts.
atHighAltitudes	At high altitudes	At high altitudes.
atTollPlazas	At toll plazas	At toll plazas.

Enumerated value name	Designation	Definition
inBuiltUpAreas	In built up areas	In built up areas, i.e. villages, towns and cities.
inContraflowSections	In contraflow sections	In sections of the road where contraflow is in operation.
inForestedAreas	In forested areas	On sections of the road where it runs through or adjacent to forested areas.
inGalleries	In galleries	In galleries.
inLowLyingAreas	In low lying areas	In low lying areas.
inRoadworksAreas	In roadworks areas	In roadworks areas.
inRuralAreas	In rural areas	In rural areas, i.e. outside villages, towns and cities.
inShadedAreas	In shaded areas	In shaded areas.
inTheCityCentre	In the city centre	In the city centre.
inTheInnerCityAreas	In the inner city areas	In the inner city areas.
inTunnels	In tunnels	In tunnels.
onBridges	On bridges	On bridges.
onDownHillSections	On down hill sections	On down hill sections of the road.
onDualCarriagewaySections	On dual carriageway sections	On dual carriageway sections of the road.
onElevatedSections	On elevated sections	On elevated sections of the road.
onEnteringOrLeavingTunnels	On entering or leaving tunnels	On entering or leaving tunnels.
onEnteringTheCountry	On entering the country	On entry into the country.
onFlyovers	On flyovers	On flyover sections of the road, i.e. sections of the road which pass over another road.
onLeavingTheCountry	On leaving the country	On leaving the country.
onMotorways	On motorways	On motorways.
onNonMotorways	On non motorways	On non motorways.
onPasses	On passes	On mountain passes.
onRoundabouts	On roundabouts	On roundabouts.
onSingleCarriagewaySections	On single carriageway sections	On single carriageway sections of the road.
onSlipRoads	On slip roads	On slip roads.

Enumerated value name	Designation	Definition
onUndergroundSections	On underground sections	On underground sections of the road.
onUnderpasses	On underpasses	On underpasses, i.e. sections of the road which pass under another road.
onUpHillSections	On up hill sections	On hill sections of the road.
other	Other	Other than as defined in this enumeration.
overTheCrestOfHills	Over the crest of hills	Over the crest of hills.

Table 32— Values contained in the enumeration "PlacesEnum"

A.4.14 The <<enumeration>> "ProbabilityOfOccurrenceEnum"

Levels of confidence that the sender has in the information, ordered {certain, probable, risk of}.

Enumerated value name	Designation	Definition
certain	Certain	The source is completely certain of the occurrence of the situation record version content.
probable	Probable	The source has a reasonably high level of confidence of the occurrence of the situation record version content.
riskOf	Risk of	The source has a moderate level of confidence of the occurrence of the situation record version content.

Table 33— Values contained in the enumeration "ProbabilityOfOccurrenceEnum"

A.4.15 The <<enumeration>> "RoadOrCarriagewayOrLaneManagementTypeEnum"

Management actions relating to road, carriageway or lane usage.

Enumerated value name	Designation	Definition
carPoolLaneInOperation	Car pool lane in operation	Dedicated car pool lane(s) are in operation for vehicles carrying at least the specified number of occupants.

Enumerated value name	Designation	Definition
carriagewayClosures	Carriageway closures	Carriageway closures are in operation at the specified location.
clearALaneForEmergencyVehicles	Clear a lane for emergency vehicles	Clear a lane for emergency vehicles.
clearALaneForSnowploughsAndGrittingVehicles	Clear a lane for snowploughs and gritting vehicles	Clear a lane for snow ploughs and gritting vehicles.
closedPermanentlyForTheWinter	Closed permanently for the winter	The road is closed to vehicles with the specified characteristics or all, if none defined, for the duration of the winter.
contraflow	Contraflow	Two-way traffic is temporarily sharing a single carriageway.
doNotUseSpecifiedLanesOrCarriageways	Do not use specified lanes or carriageways	Do not use the specified lane(s) or carriageway(s).
hardShoulderRunningInOperation	Hard shoulder running in operation	The hard shoulder is open as an operational lane.
heightRestrictionInOperation	Height restriction in operation	A height restriction is in operation.
intermittentShortTermClosures	Intermittent short term closures	Road closures occur intermittently on the specified road in the specified direction for short durations.
keepToTheLeft	Keep to the left	Keep to the left.
keepToTheRight	Keep to the right	Keep to the right.
laneClosures	Lane closures	Lane closures are in operation at the specified location for vehicles with the specified characteristics or all, if none defined, in the specified direction.
lanesDeviated	Lanes deviated	Lane deviations are in operation at the specified location.
narrowLanes	Narrow lanes	Normal lane widths are temporarily reduced.
newRoadworksLayout	New roadworks layout	A new layout of lanes/carriageway has been implemented associated with roadworks.
other	Other	Other than as defined in this enumeration.
overnightClosures	Overnight closures	Every night the road is closed to vehicles with the specified characteristics or all, if none defined, in the specified direction by decision of the appropriate authorities.

Enumerated value name	Designation	Definition
roadCleared	Road cleared	The road has been cleared of earlier reported problems.
roadClosed	Road closed	The road is closed to vehicles with the specified characteristics or all, if none defined, in the specified direction.
rollingRoadBlock	Rolling road block	Traffic officers or police are driving slowly in front of a queue of traffic to create a gap in the traffic to allow for clearance activities to take place in safety on the road ahead.
rushHourLaneInOperation	Rush hour lane in operation	Dedicated rush (peak) hour lane(s) are in operation.
singleAlternateLineTraffic	Single alternate line traffic	Traffic is being controlled to move in alternate single lines. This control may be undertaken by traffic lights or flagman.
tidalFlowLaneInOperation	Tidal flow lane in operation	Dedicated tidal flow lane(s) are in operation in the specified direction.
turnAroundInOperation	Turn around in operation	Traffic is being directed back down the opposite carriageway, possibly requiring the temporary removal of the central crash barrier.
useOfSpecifiedLanesOrCarriagewaysAllowed	Use of specified lanes or carriageways allowed	The specified lane(s) or carriageway(s) may be used. The normal lane(s) or carriageway(s) restrictions are not currently in force.
useSpecifiedLanesOrCarriageways	Use specified lanes or carriageways	Use the specified lane(s) or carriageway(s).
vehicleStorageInOperation	Vehicle storage in operation	Vehicles are being stored on the roadway and/or at a rest area or service area at the specified location.
weightRestrictionInOperation	Weight restriction in operation	A weight restriction is in operation.

Table 34— Values contained in the enumeration "RoadOrCarriagewayOrLaneManagementTypeEnum"

A.4.16 The <<enumeration>> "SeverityEnum"

Levels of severity of a situation as whole assessed by the impact that the situation may have on traffic flow as perceived by the supplier.

Enumerated value name	Designation	Definition
high	High	Perceived by supplier as being of a high level.
highest	Highest	Perceived by supplier as being of the highest level.
low	Low	Perceived by supplier as being of a low level.
lowest	Lowest	Perceived by supplier as being of the lowest discernible level.
medium	Medium	Perceived by supplier as being of a medium level.
none	None	Perceived by supplier as having a severity rating of none.
unknown	Unknown	Perceived by supplier as being of an unknown level.

Table 35— Values contained in the enumeration "SeverityEnum"

A.4.17 The <<enumeration>> "SpeedManagementTypeEnum"

Management actions relating to speed.

Enumerated value name	Designation	Definition
activeSpeedControlInOperation	Active speed control in operation	Automatic speed control measures are in place at the specified location, whereby speed limits are set by an automatic system which is triggered by traffic sensing equipment.
doNotSlowdownUnnecessarily	Do not slowdown unnecessarily	Do not slow down unnecessarily.
observeSpeedLimit	Observe speed limit	Observe speed limit.
other	Other	Other than as defined in this enumeration.
policeSpeedChecksInOperation	Police speed checks in operation	Police speed checks are in operation.
reduceYourSpeed	Reduce your speed	Reduce your speed.
speedRestrictionInOperation	Speed restriction in operation	A speed restriction is in operation.

Table 36— Values contained in the enumeration "SpeedManagementTypeEnum"

A.4.18 The <<enumeration>> "TrafficConstrictionTypeEnum"

Types of constriction to which traffic is subjected as a result of an event.

Enumerated value name	Designation	Definition
carriagewayBlocked	Carriageway blocked	The carriageway is totally obstructed in the specified direction due to an unplanned event.
carriagewayPartiallyObstructed	Carriageway partially obstructed	The carriageway is partially obstructed in the specified direction due to an unplanned event.
lanesBlocked	Lanes blocked	One or more lanes is totally obstructed in the specified direction due to an unplanned event.
lanesPartiallyObstructed	Lanes partially obstructed	One or more lanes is partially obstructed in the specified direction due to an unplanned event.
roadBlocked	Road blocked	The road is totally obstructed, for all vehicles in both directions, due to an unplanned event.
roadPartiallyObstructed	Road partially obstructed	The road is partially obstructed in both directions due to an unplanned event.

Table 37— Values contained in the enumeration "TrafficConstrictionTypeEnum"

A.4.19 The <<enumeration>> "TrafficTypeEnum"

Types of traffic, mostly classified by its destination type.

Enumerated value name	Designation	Definition
accessOnlyTraffic	Access only traffic	Traffic destined for local access only.
destinedForAirport	Destined for airport	Traffic destined for the airport.
destinedForAirportArrivals	Destined for airport arrivals	Traffic destined for airport arrivals.
destinedForAirportDepartures	Destined for airport departures	Traffic destined for airport departures.
destinedForFerryService	Destined for ferry service	Traffic destined for the ferry service.
destinedForRailService	Destined for rail service	Traffic destined for the rail service.
holidayTraffic	Holiday traffic	Traffic heading towards holiday destinations.
localTraffic	Local traffic	Traffic heading towards local destinations.
longDistanceTraffic	Long distance traffic	Traffic heading towards destinations which are a long distance away.

Enumerated value name	Designation	Definition
regionalTraffic	Regional traffic	Traffic heading towards local regional destinations.
residentsOnlyTraffic	Residents only traffic	Local residents only traffic.
throughTraffic	Through traffic	Traffic which is not for local access, i.e. traffic not destined for local town, city or built up area but for transit though the area.
visitorTraffic	Visitor traffic	Traffic heading towards local visitor attraction.

Table 38— Values contained in the enumeration "TrafficTypeEnum"

A.4.20 The <<enumeration>> "ValidityStatusEnum"

Values of validity status that can be assigned to a described event, action or item.

Enumerated value name	Designation	Definition
active	Active	The described event, action or item is currently active regardless of the definition of the validity time specification.
definedByValidityTimeSpec	Defined by validity time spec	The validity status of the described event, action or item is in accordance with the definition of the validity time specification.
suspended	Suspended	The described event, action or item is currently suspended, that is inactive, regardless of the definition of the validity time specification.

Table 39— Values contained in the enumeration "ValidityStatusEnum"

A.4.21 The <<enumeration>> "VehicleEquipmentEnum"

Types of vehicle equipment in use or on board.

Enumerated value name	Designation	Definition
notUsingSnowChains	Not using snow chains	Vehicle not using snow chains.
notUsingSnowChainsOrTyres	Not using snow chains or tyres	Vehicle not using either snow tyres or snow chains.
snowChainsInUse	Snow chains in use	Vehicle using snow chains.
snowChainsOrTyresInUse	Snow chains or tyres in use	Vehicle using snow tyres or snow chains.

Enumerated value name	Designation	Definition
snowTyresInUse	Snow tyres in use	Vehicle using snow tyres.
withoutSnowTyresOrChainsOnBoard	Without snow tyres or chains on board	Vehicle which is not carrying on board snow tyres or chains.

Table 40— Values contained in the enumeration "VehicleEquipmentEnum"

A.4.22 The <<enumeration>> "VehicleTypeEnum"

Types of vehicle.

Enumerated value name	Designation	Definition
agriculturalVehicle	Agricultural vehicle	Vehicle normally used for agricultural purposes, e.g. tractor, combined harvester etc.
anyVehicle	Any vehicle	Vehicle of any type.
articulatedVehicle	Articulated vehicle	Articulated vehicle.
bicycle	Bicycle	Bicycle.
bus	Bus	Bus.
car	Car	Car.
caravan	Caravan	Caravan.
carOrLightVehicle	Car or light vehicle	Car or light vehicle.
carWithCaravan	Car with caravan	Car towing a caravan.
carWithTrailer	Car with trailer	Car towing a trailer.
constructionOrMaintenanceVehicle	Construction or maintenance vehicle	Vehicle normally used for construction or maintenance purposes, e.g. digger, excavator, bulldozer, lorry mounted crane etc.
fourWheelDrive	Four wheel drive	Four wheel drive vehicle.
highSidedVehicle	High sided vehicle	High sided vehicle.
lorry	Lorry	Lorry of any type.

Enumerated value name	Designation	Definition
moped	Moped	Moped (a two wheeled motor vehicle characterized by a small engine typically less than 50cc and by normally having pedals).
motorcycle	Motorcycle	Motorcycle.
motorcycleWithSideCar	Motorcycle with side car	Three wheeled vehicle comprising a motorcycle with an attached side car.
motorscooter	Motorscooter	Motorscooter (a two wheeled motor vehicle characterized by a step-through frame and small diameter wheels).
other	Other	Other than as defined in this enumeration.
tanker	Tanker	Vehicle with large tank for carrying bulk liquids.
threeWheeledVehicle	Three wheeled vehicle	Three wheeled vehicle of unspecified type.
trailer	Trailer	Trailer.
tram	Tram	Tram.
twoWheeledVehicle	Two wheeled vehicle	Two wheeled vehicle of unspecified type.
van	Van	Van.
vehicleWithCaravan	Vehicle with caravan	Vehicle (of unspecified type) towing a caravan.
vehicleWithCatalyticConverter	Vehicle with catalytic converter	Vehicle with catalytic converter.
vehicleWithoutCatalyticConverter	Vehicle without catalytic converter	Vehicle without catalytic converter.
vehicleWithTrailer	Vehicle with trailer	Vehicle (of unspecified type) towing a trailer.
withEvenNumberedRegistrationPlates	With even numbered registration plates	Vehicle with even numbered registration plate.
withOddNumberedRegistrationPlates	With odd numbered registration plates	Vehicle with odd numbered registration plate.

Table 41— Values contained in the enumeration "VehicleTypeEnum"

A.4.23 The <<enumeration>> "VehicleUsageEnum"

Types of usage of a vehicle.

Enumerated value name	Designation	Definition
agricultural	Agricultural	Vehicle used for agricultural purposes.

Enumerated value name	Designation	Definition
commercial	Commercial	Vehicle which is limited to non-private usage or public transport usage.
emergencyServices	Emergency services	Vehicle used by the emergency services.
military	Military	Vehicle used by the military.
nonCommercial	Non commercial	Vehicle used for non-commercial or private purposes.
patrol	Patrol	Vehicle used as part of a patrol service, e.g. road operator or automobile association patrol vehicle.
recoveryServices	Recovery services	Vehicle used to provide a recovery service.
roadMaintenanceOrConstruction	Road maintenance or construction	Vehicle used for road maintenance or construction work purposes.
roadOperator	Road operator	Vehicle used by the road operator.
taxi	Taxi	Vehicle used to provide an authorised taxi service.

Table 42— Values contained in the enumeration "VehicleUsageEnum"

A.4.24 The <<enumeration>> "WinterEquipmentManagementTypeEnum"

Instructions relating to the use of winter equipment.

Enumerated value name	Designation	Definition
doNoUseStudTyres	Do no use stud tyres	Do not use stud tyres.
other	Other	Other than as defined in this enumeration.
useSnowChains	Use snow chains	Use snow chains.
useSnowChainsOrTyres	Use snow chains or tyres	Use snow chains or snow tyres.
useSnowTyres	Use snow tyres	Use snow tyres.
winterEquipmentOnBoardRequired	Winter equipment on board required	The carrying of winter equipment (snow chains and/or snow tyres) is required.

Table 43— Values contained in the enumeration "WinterEquipmentManagementTypeEnum"

A.5 Alphabetical list of attributes

Attribute name	Class name	Designation	Definition	Multiplicity	Type
actionOrigin	OperatorAction	Action origin	Indicates whether the actions to be undertaken by the operator are the result of an internal operation or external influence.	0..1	OperatorActionOriginEnum
actionPlanIdentifier	OperatorAction	Action plan identifier	The identifier of the traffic management action plan to which this action relates.	0..1	String
applicableForTrafficDirection	NetworkManagement	Applicable for traffic direction	The ultimate traffic direction to which the network management is applicable.	0..*	DirectionEnum
applicableForTrafficType	NetworkManagement	Applicable for traffic type	The type of traffic to which the network management is applicable.	0..*	TrafficTypeEnum
automaticallyInitiated	NetworkManagement	Automatically initiated	Defines whether the network management is initiated by an automatic system.	0..1	Boolean
capacityRemaining	Impact	Capacity remaining	The ratio of current capacity to the normal (free flow) road capacity in the defined direction, expressed as a percentage. Capacity is the maximum number of vehicles that can pass a specified point on the road, in unit time given the specified conditions.	0..1	Percentage
comment	Comment	Comment	A free text comment that can be used by the operator to convey un-coded observations/information.	1..1	MultilingualString
commentDateTime	Comment	Comment date time	The date/time at which the comment was made.	0..1	DateTime
commentType	Comment	Comment type	A classification of the the type of comment.	0..1	CommentTypeEnum
comparisonOperator	GrossWeightCharacteristic	Comparison operator	The operator to be used in the vehicle characteristic comparison operation.	1..1	ComparisonOperatorEnum
comparisonOperator	HeaviestAxleWeightCharacteristic	Comparison operator	The operator to be used in the vehicle characteristic comparison operation.	1..1	ComparisonOperatorEnum
comparisonOperator	HeightCharacteristic	Comparison operator	The operator to be used in the vehicle characteristic comparison operation.	1..1	ComparisonOperatorEnum

comparisonOperator	NumberOfAxlesCharacteristic	Comparison operator	The operator to be used in the vehicle characteristic comparison operation.	1..1	ComparisonOperatorEnum
comparisonOperator	LengthCharacteristic	Comparison operator	The operator to be used in the vehicle characteristic comparison operation.	1..1	ComparisonOperatorEnum
comparisonOperator	WidthCharacteristic	Comparison operator	The operator to be used in the vehicle characteristic comparison operation.	1..1	ComparisonOperatorEnum
complianceOption	NetworkManagement	Compliance option	Defines whether the network management instruction or the control resulting from a network management action is advisory or mandatory.	1..1	ComplianceOptionEnum
confidentialityOverride	SituationRecord	Confidentiality override	The extent to which the related information may be circulated, according to the recipient type. Recipients must comply with this confidentiality statement. This overrides any confidentiality defined for the situation as a whole in the header information.	0..1	ConfidentialityValueEnum
fuelType	VehicleCharacteristics	Fuel type	The type of fuel used by the vehicle.	0..1	FuelTypeEnum
generalInstructionToRoadUsersType	GeneralInstructionOrMessageToRoadUsers	General instruction to road users type	General instruction that is issued by the network/road operator which is applicable to drivers and sometimes passengers.	0..1	GeneralInstructionToRoadUsersTypeEnum
generalMessageToRoadUsers	GeneralInstructionOrMessageToRoadUsers	General message to road users	General message that is issued by the network/road operator which is applicable to drivers and sometimes passengers, e.g. details about an amber alert (missing or abducted child alert).	0..1	MultilingualString
generalNetworkManagementType	GeneralNetworkManagement	General network management type	The type of traffic management action instigated by the network/road operator.	1..1	GeneralNetworkManagementTypeEnum
grossVehicleWeight	GrossWeightCharacteristic	Gross vehicle weight	The gross weight of the vehicle and its load, including any trailers.	1..1	Tonnes
heaviestAxleWeight	HeaviestAxleWeightCharacteristic	Heaviest axle weight	The weight of the heaviest axle on the vehicle.	1..1	Tonnes

loadType	VehicleCharacteristics	Load type	The type of load carried by the vehicle, especially in respect of hazardous loads.	0..1	LoadTypeEnum
minimumCarOccupancy	RoadOrCarriagewayOrLaneManagement	Minimum car occupancy	The minimum number of persons required in a vehicle in order for it to be allowed to transit the specified road section.	0..1	NonNegativeInteger
numberOfAxles	NumberOfAxlesCharacteristic	Number of axles	The total number of axles of an individual vehicle.	1..1	NonNegativeInteger
numberOfLanesRestricted	Impact	Number of lanes restricted	The number of normally usable lanes on the carriageway which are now restricted either fully or partially (this may include the hard shoulder if it is normally available for operational use, e.g. in hard shoulder running schemes).	0..1	NonNegativeInteger
numberOfOperationalLanes	Impact	Number of operational lanes	The number of usable lanes in the specified direction which remain fully operational (this may include the hard shoulder if it is being used as an operational lane).	0..1	NonNegativeInteger
operatorActionStatus	OperatorAction	Operator action status	The status of the defined operator action.	0..1	OperatorActionStatusEnum
originalNumberOfLanes	Impact	Original number of lanes	The normal number of usable lanes in the specified direction that the carriageway has before reduction due to roadworks or traffic events.	0..1	NonNegativeInteger
overallEndTime	OverallPeriod	Overall end time	End of bounding period of validity defined by date and time.	0..1	DateTime
overallStartTime	OverallPeriod	Overall start time	Start of bounding period of validity defined by date and time.	1..1	DateTime
overrunning	Validity	Overrunning	The activity or action described by the SituationRecord is still in progress, overrunning its planned duration as indicated in a previous version of this record.	0..1	Boolean
placesAtWhichApplicable	NetworkManagement	Places at which applicable	Places, in generic terms, at which the network management applies.	0..*	PlacesEnum
predefinedLocationReference	LocationByReference	Predefined location reference	A reference to a versioned predefined location.	1..1	VersionedReference

			ASFINAG: This class & this attribute will only be used in a two-file solution (i.e. together with a static file with predefined locations), not with the 'single file solution'		
probabilityOfOccurrence	SituationRecord	Probability of occurrence	An assessment of the degree of likelihood that the reported event will occur.	1..1	ProbabilityOfOccurrenceEnum
residualRoadWidth	Impact	Residual road width	The total width of the combined operational lanes in the specified direction.	0..1	MetresAsFloat
roadOrCarriagewayOrLaneManagementType	RoadOrCarriagewayOrLaneManagement	Road or carriageway or lane management type	Type of road, carriageway or lane management action instigated by operator.	1..1	RoadOrCarriagewayOrLaneManagementTypeEnum
severity	SituationRecord	Severity	The assessment of the impact (in terms of severity) that this element of the situation is having, or will have, on the traffic flow as perceived by the supplier.	0..1	SeverityEnum
situationRecordCreationReference	SituationRecord	Situation record creation reference	A unique alphanumeric reference (either an external reference or GUID) of the SituationRecord object (the first version of the record) that was created by the original supplier.	0..1	String
situationRecordCreationTime	SituationRecord	Situation record creation time	The date/time that the SituationRecord object (the first version of the record) was created by the original supplier.	1..1	DateTime
situationRecordFirstSupplierVersionTime	SituationRecord	Situation record first supplier version time	The date/time that the current version of the Situation Record was written into the database of the original supplier in the supply chain.	0..1	DateTime
situationRecordObservationTime	SituationRecord	Situation record observation time	The date/time that the information represented by the current version of the SituationRecord was observed by the original (potentially external) source of the information.	0..1	DateTime
situationRecordVersionTime	SituationRecord	Situation record version time	The date/time that this current version of the SituationRecord within the situation was written into the database of the	1..1	DateTime

			supplier which is involved in the data exchange. Identity and version of record are defined by the class stereotype implementation.		
speedManagementType	SpeedManagement	Speed management type	Type of speed management action instigated by operator.	0..1	SpeedManagementTypeEnum
temporarySpeedLimit	SpeedManagement	Temporary speed limit	Temporary limit defining the maximum advisory or mandatory speed of vehicles.	0..1	KilometresPerHour
trafficConstrictionType	Impact	Traffic constriction type	The type of constriction to which traffic is subjected as a result of an event or operator action.	0..1	TrafficConstrictionTypeEnum
trafficManuallyDirectedBy	GeneralNetworkManagement	Traffic manually directed by	Type of person that is manually directing traffic (applicable if generalNetworkManagementType is set to "trafficBeingManuallyDirected").	0..1	PersonCategoryEnum
validityStatus	Validity	Validity status	Specification of validity, either explicitly overriding the validity time specification or confirming it.	1..1	ValidityStatusEnum
vehicleEquipment	VehicleCharacteristics	Vehicle equipment	The type of equipment in use or on board the vehicle.	0..1	VehicleEquipmentEnum
vehicleHeight	HeightCharacteristic	Vehicle height	The height of the highest part, excluding antennae, of an individual vehicle above the road surface, in metres.	1..1	MetresAsFloat
vehicleLength	LengthCharacteristic	Vehicle length	The overall distance between the front and back of an individual vehicle, including the length of any trailers, couplings, etc.	1..1	MetresAsFloat
vehicleType	VehicleCharacteristics	Vehicle type	Vehicle type.	0..*	VehicleTypeEnum
vehicleUsage	VehicleCharacteristics	Vehicle usage	The type of usage of the vehicle (i.e. for what purpose is the vehicle being used).	0..1	VehicleUsageEnum
vehicleWidth	WidthCharacteristic	Vehicle width	The maximum width of an individual vehicle, in metres.	1..1	MetresAsFloat
winterEquipmentManagementType	WinterDrivingManagement	Winter equipment management type	Type of winter equipment management action instigated by operator.	1..1	WinterEquipmentManagementTypeEnum

Table 44- Alphabetical list of attributes

A.6 Alphabetical list of roles

Role name	Class name	Designation	Definition	Multiplicity	Target
forVehiclesWithCharacteristicsOf	NetworkManagement	For vehicles with characteristics of	The characteristics of those vehicles for which the network management is applicable.	0..*	VehicleCharacteristics
generalPublicComment	SituationRecord	General public comment	A comment which may be freely distributed to the general public	0..*	Comment
locationContainedInGroup	NonOrderedLocationGroupByList	Location contained in group	A location contained in a non ordered group of locations.	2..*	Location
locationContainedInItinerary	ItineraryByIndexedLocations	Location contained in itinerary	A location contained in an itinerary (i.e. an ordered set of locations defining a route or itinerary).	1..1	Location
locationForDisplay	Location	Location for display	A location which may be used by clients for visual display on user interfaces.	0..1	PointCoordinates
nonGeneralPublicComment	SituationRecord	Non general public comment	A comment which should not be distributed to the general public.	0..*	Comment
routeDestination	Itinerary	Route destination	Destination of a route or final location in an itinerary.	0..*	Destination
validityTimeSpecification	Validity	Validity time specification	A specification of periods of validity defined by overall bounding start and end times and the possible intersection of valid periods with exception periods (exception periods overriding valid periods).	1..1	OverallPeriod

Table 45- Alphabetical list of roles

A.7 Figures

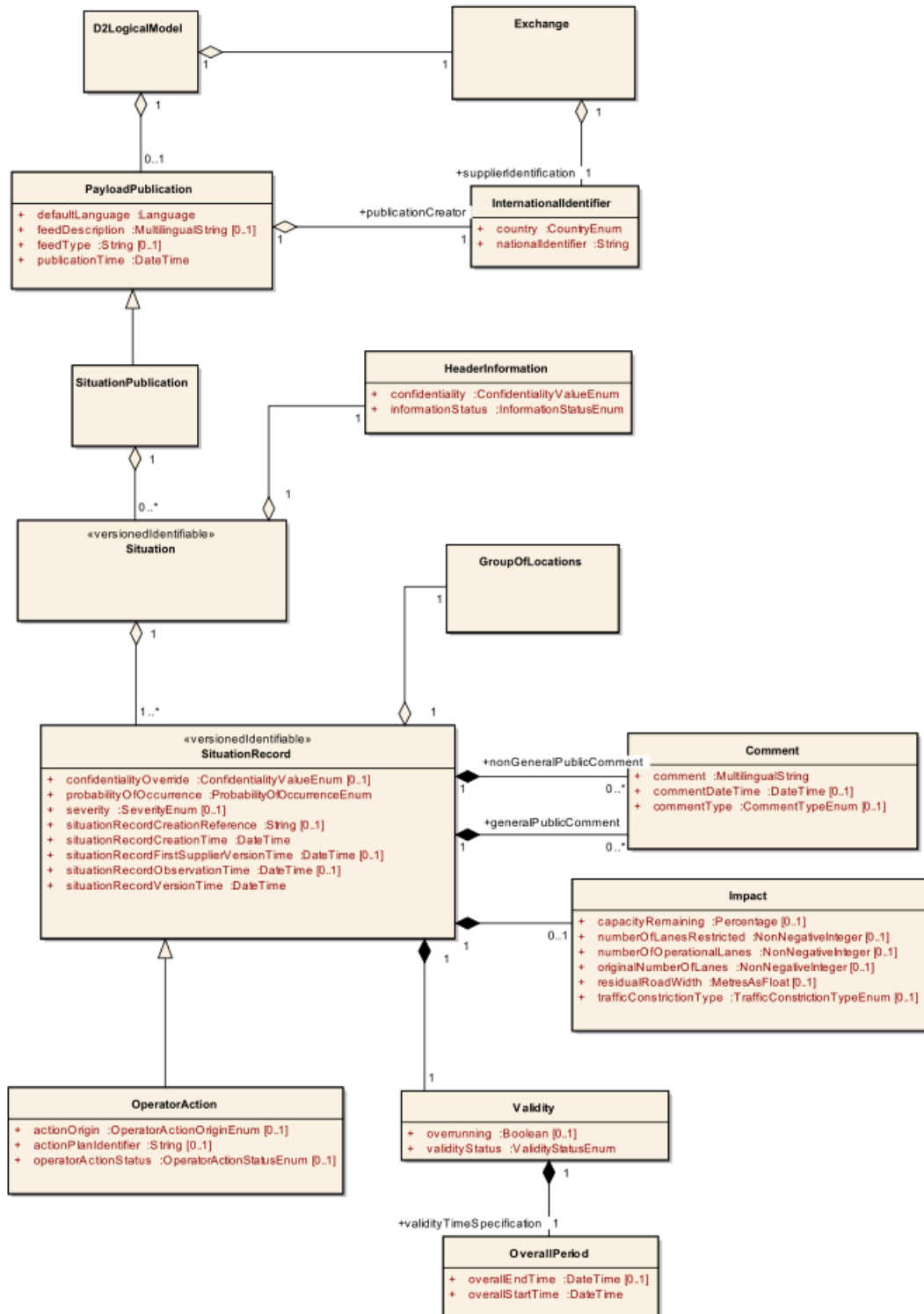


Figure 1: Situation Publication

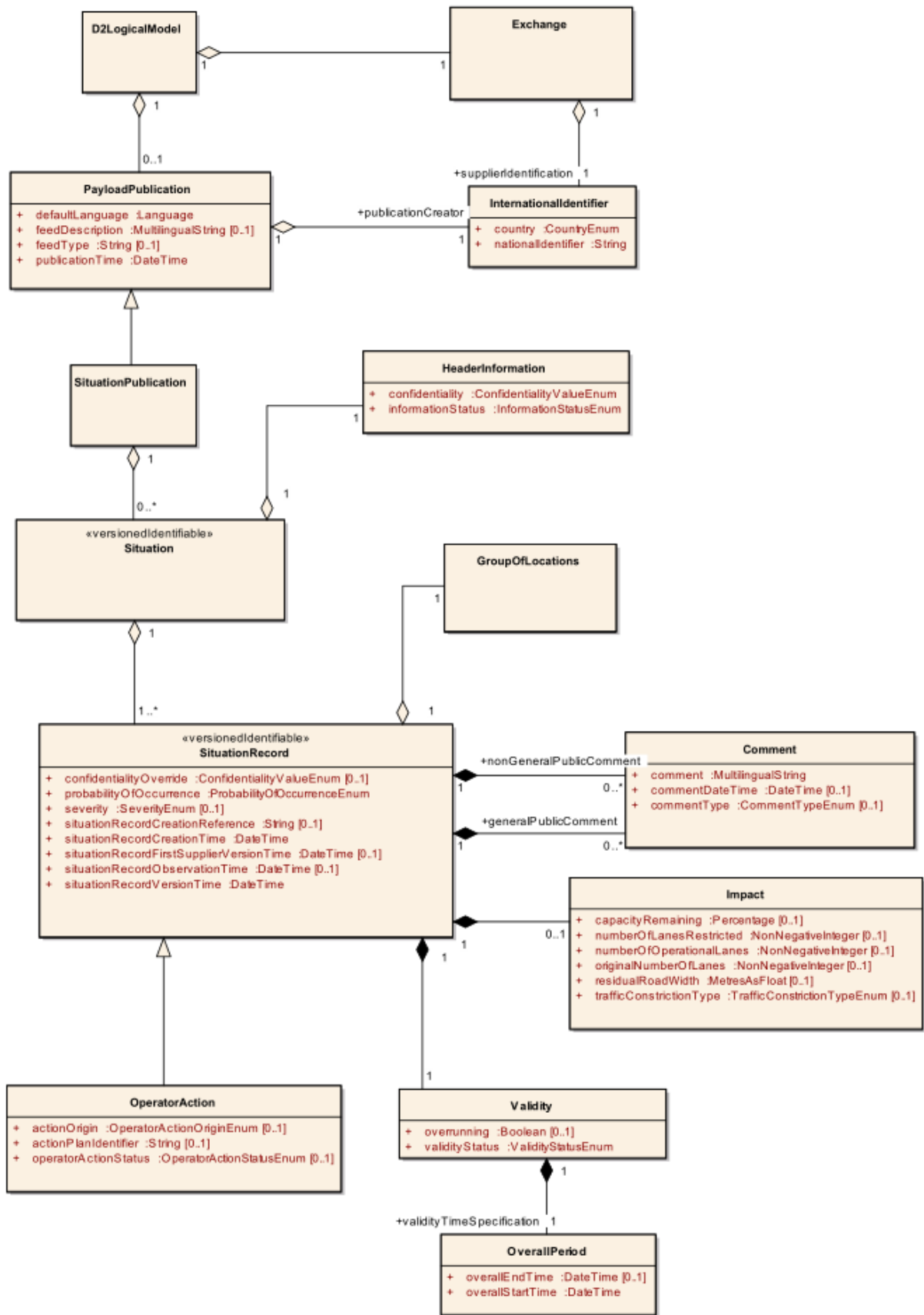


Figure 2: Operator Action

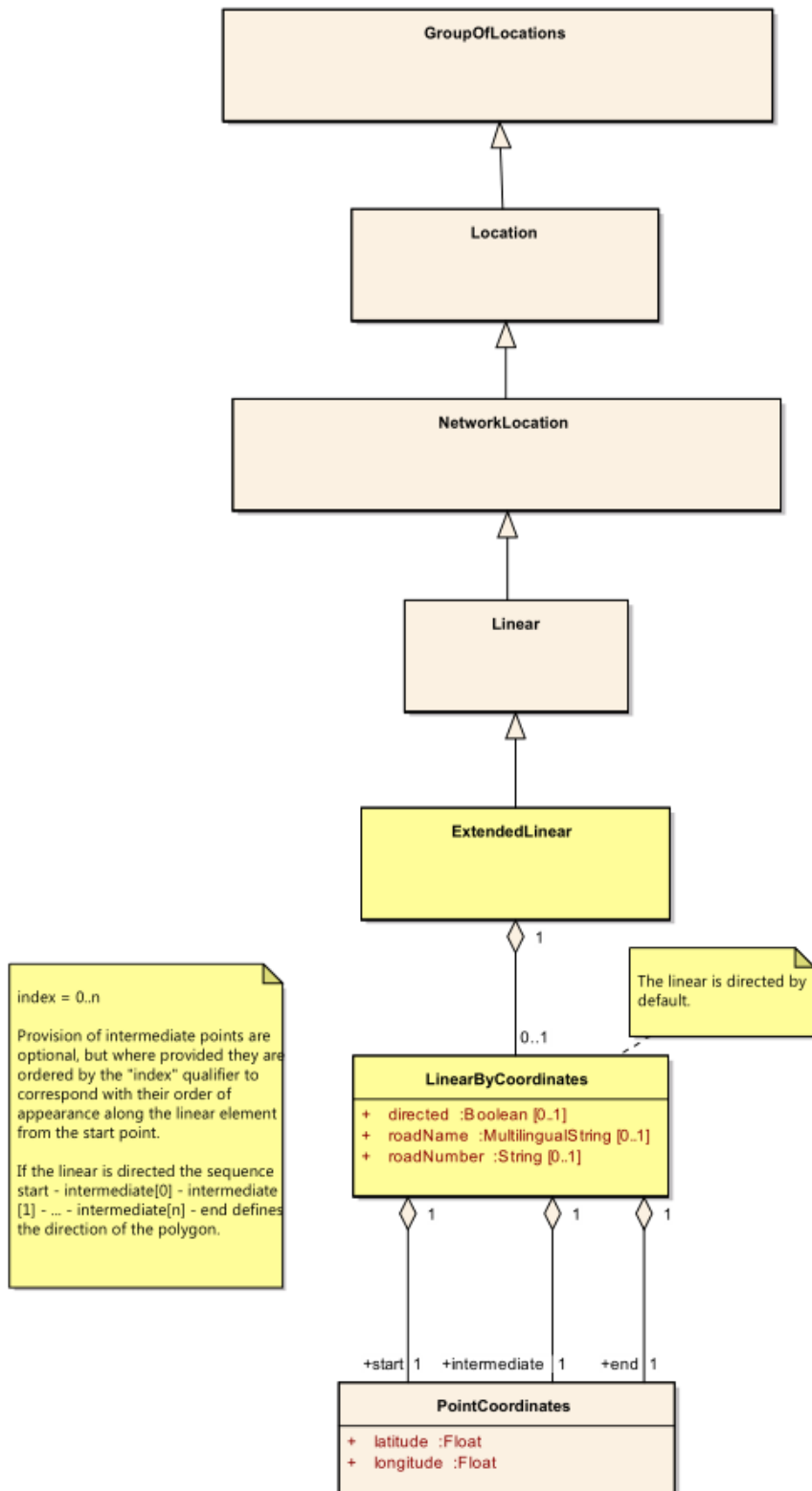


Figure 3: LinearByCoordinates when using single file solution (location reference classes not included in this document) OR when using a static file.

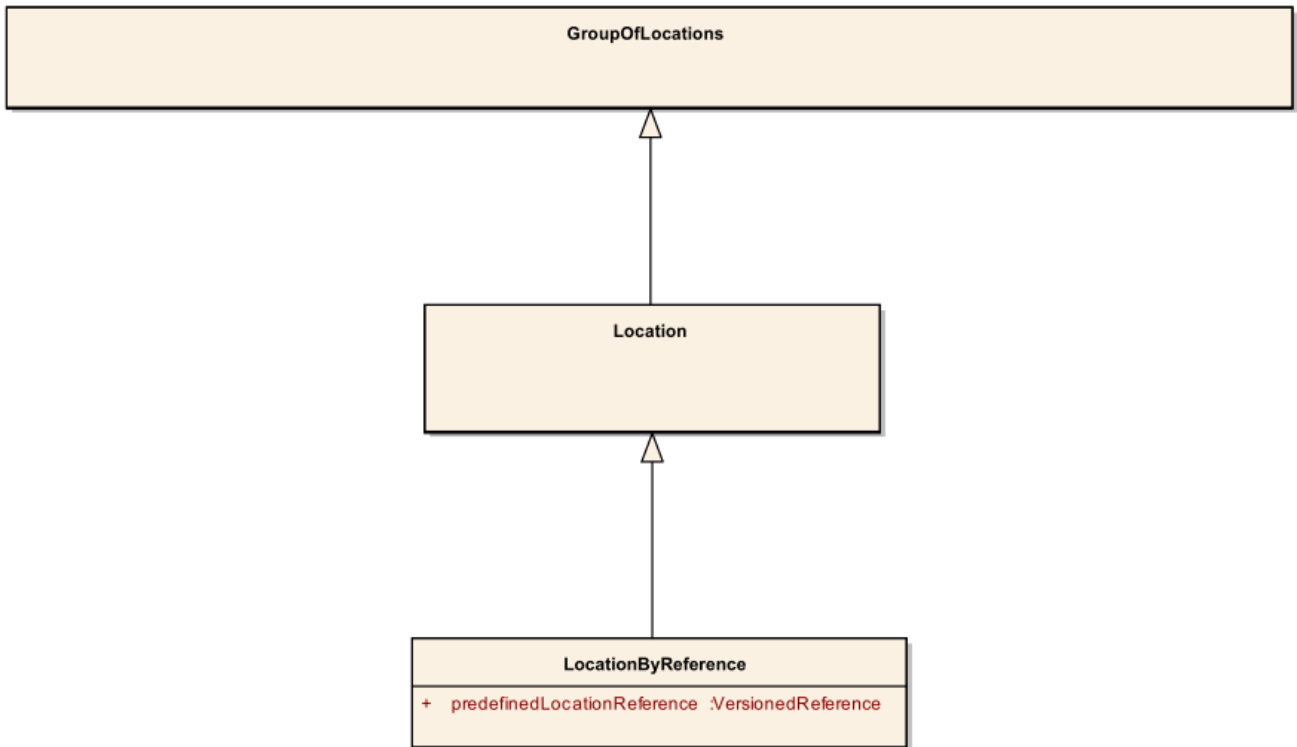


Figure 4: LocationByReference when using a static file in addition

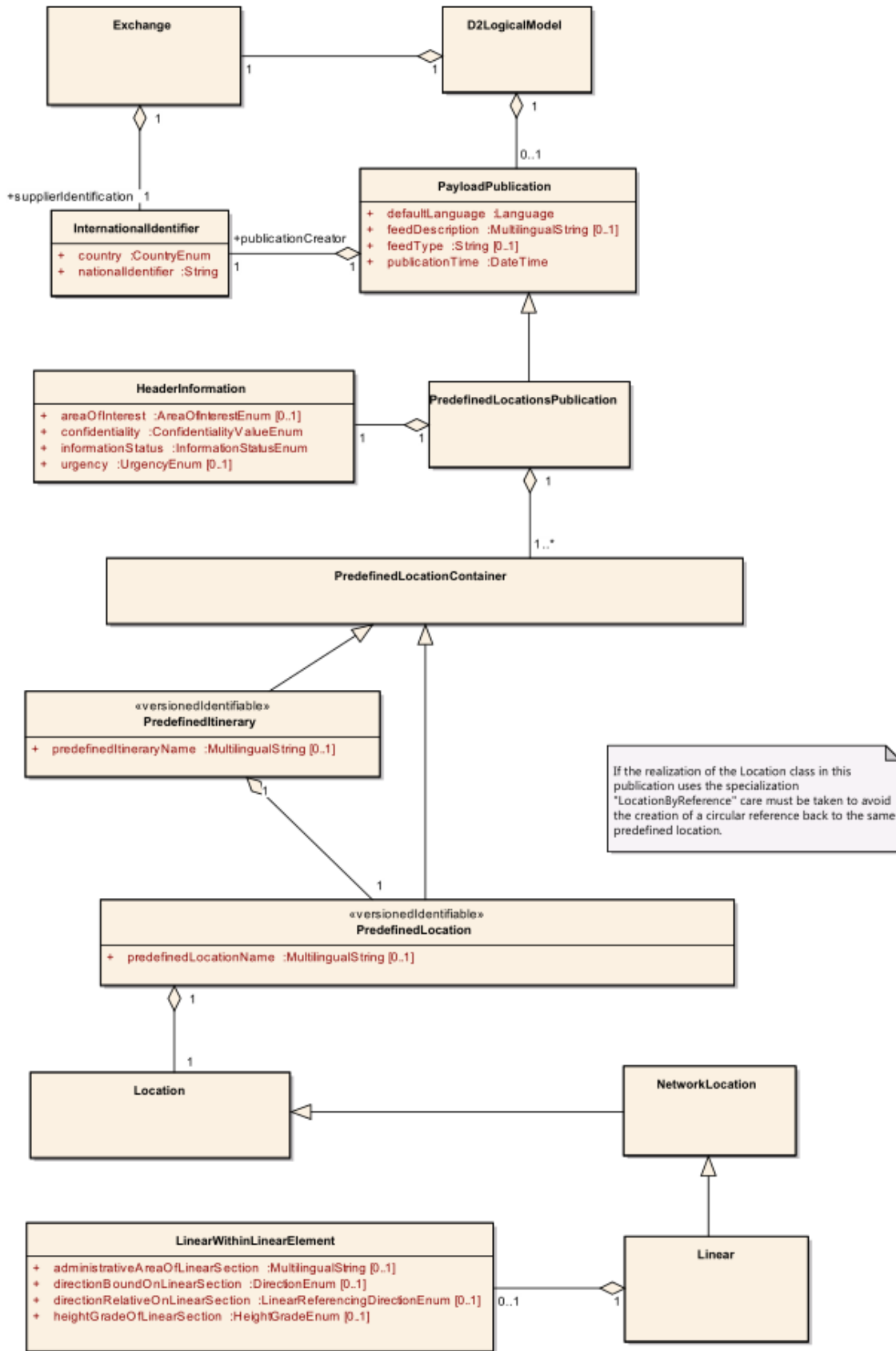


Figure 5: PredefinedLocationPublication (static structure, not part of this document)

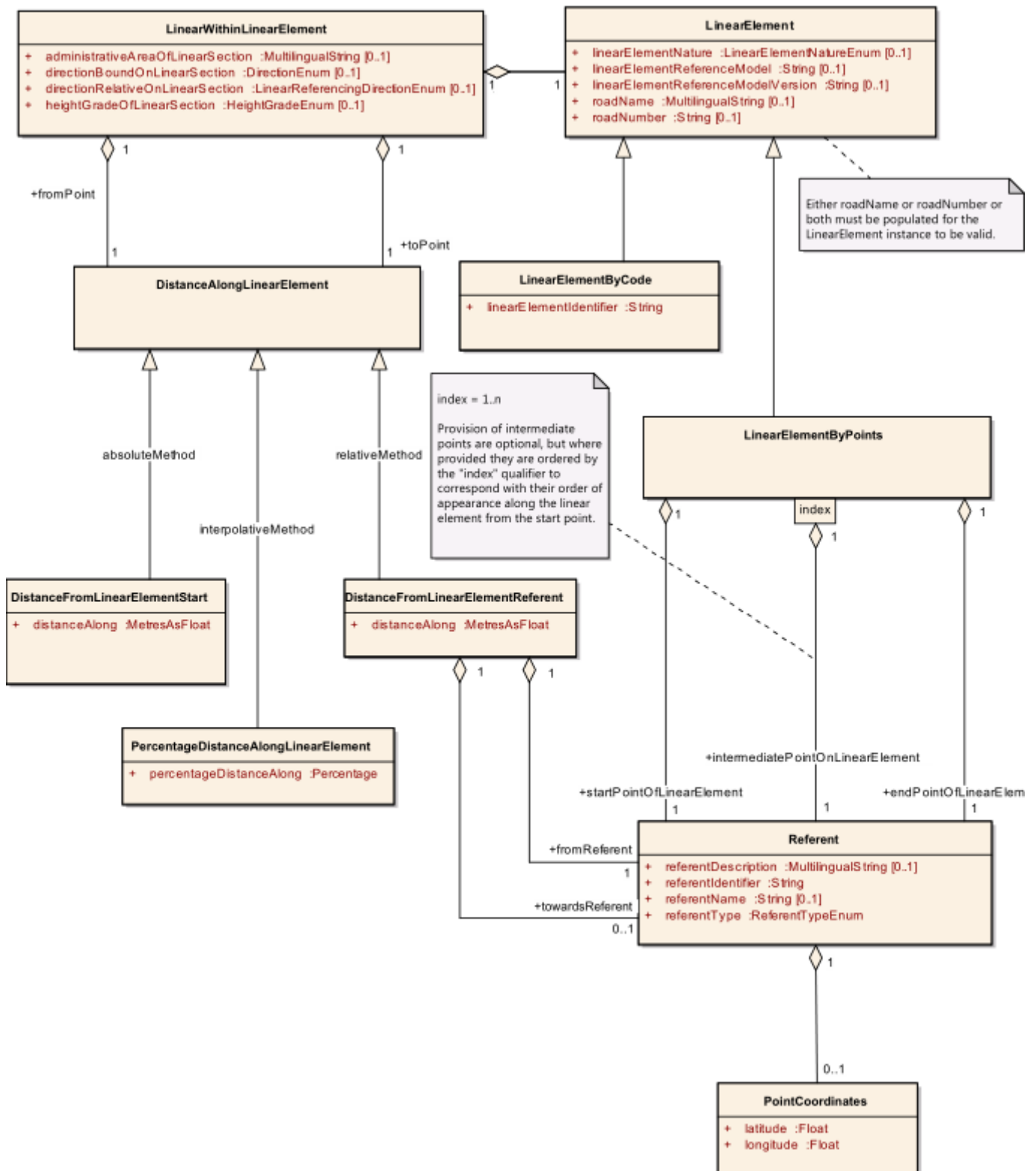


Figure 6: LinearWithinLinear (static structure, not part of this document)

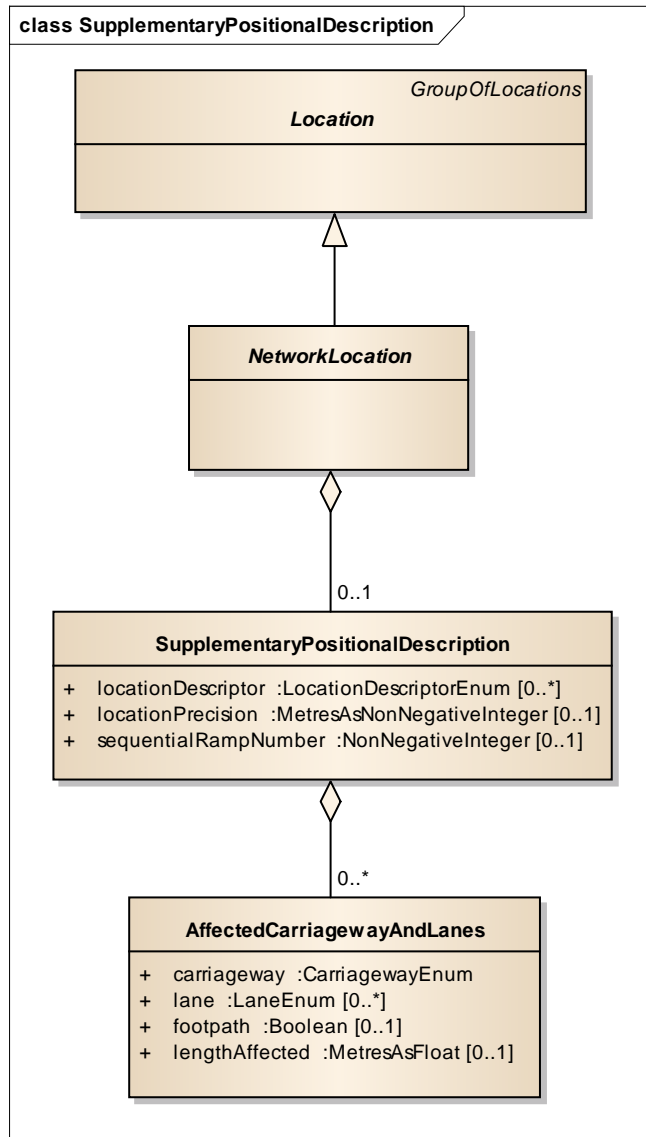


Figure 7: Supplementary Positional Description and Affected Carriageways and Lanes (static structure, not part of this document)