Realis ITS

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DatexII 2.3 profile realiscounters-1.0



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DatexII 2.3 Profile realiscounters 1.0

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 - Complex Type: SupplementaryPositionalDescription
 - Complex Type: TemperatureValue
 - Complex Type: TpegAreaDescriptor

 - Complex Type: TpegDescriptor
 Complex Type: TrafficConcentration
 - Complex Type: TrafficData Complex Type: TrafficFlow
 - Complex Type: TrafficHeadway
 - Complex Type: TrafficSpeed
 - Complex Type: TrafficStatusValue Complex Type: VehicleCountValue
 - Complex Type: VehicleFlowValue
 - <u>Complex Type: **ExtensionType**</u> <u>Complex Type: **PointExtensionType**</u>
 - Simple Type: AlertCDirectionEnum

 - <u>Simple Type: AlertCLocationCode</u> <u>Simple Type: AngleInDegrees</u> Simple Type: AreaOfInterestEnum
 - Simple Type: AxlesPerHour Simple Type: Boolean

 - Simple Type: CarriagewayEnum
 - Simple Type: ComputationMethodEnum
 Simple Type: ConcentrationKilogramsPerCubicMetre

 - Simple Type: ConcentrationMicrogramsPerCubicMetre
 - Simple Type: ConcentrationVehiclesPerKilometre Simple Type: ConfidentialityValueEnum
 - Simple Type: CountryEnum

 - Simple Type: DateTime
 Simple Type: DirectionCompassEnum
 Simple Type: ElaboratedDataFaultEnum
 - Simple Type: FaultSeverityEnum
 - Simple Type: Float
 - Simple Type: InformationStatusEnum

```
• Simple Type: Integer
```

- Simple Type: IntensityKilogramsPerSquareMetre
 Simple Type: IntensityMillimetresPerHour
 Simple Type: KilometresPerHour

- Simple Type: LaneEnum
- Simple Type: Language
- Simple Type: LinearReferencingDirectionEnum
- Simple Type: LocationDescriptorEnum
 Simple Type: MetresAsFloat
- Simple Type: MetresAsNonNegativeInteger
- Simple Type: MultilingualStringValueType
 Simple Type: NonNegativeInteger
- Simple Type: OpenIrFormOfWayEnum Simple Type: OpenIrFunctionalRoadClassEnum
 Simple Type: OpenIrOrientationEnum
- Simple Type: OpenIrSideOfRoadEnum
- <u>Simple Type: PassengerCarUnitsPerHour Simple Type: Percentage</u>
- Simple Type: Seconds
- Simple Type: SourceTypeEnum
- Simple Type: String
- Simple Type: TemperatureCelsius
- Simple Type: TimePrecisionEnum
 Simple Type: TpegLoc03AreaDescriptorSubtypeEnum
- Simple Type: TrafficStatusEnum
- <u>Simple Type: **UrgencyEnum**</u> <u>Simple Type: **VehiclesPerHour**</u>

Schema Document Properties

Target Namespace http://datex2.eu/schema/2/2_0

Version 2.3

Element and Attribute Namespaces

- Global element and attribute declarations belong to this schema's target namespace.
- By default, local element declarations belong to this schema's target namespace
 By default, local attribute declarations have no namespace.

Declared Namespaces

Prefix

xml http://www.w3.org/XML/1998/namespace http://www.w3.org/2001/XMLSchema D2LogicalModel http://datex2.eu/schema/2/2_0

Schema Component Representation

```
<xs:schema elementFormDefault="qualified" attributeFormDefault="unqualified" version="2.3"</pre>
targetNamespace="http://datex2.eu/schema/2/2_0">
</xs:schema>
```

Global Declarations

Element: d2LogicalModel

Name d2LogicalModel

Type D2LogicalModel:D2LogicalModel

Nillable no **Abstract**

```
XML Instance Representation
 <D2LogicalModel:d2LogicalModel</pre>
 modelBaseVersion="2 [1]">
    <D2LogicalModel:exchange> D2LogicalModel:Exchange </D2LogicalModel:exchange> [1]
<D2LogicalModel:payloadPublication> D2LogicalModel:PayloadPublication </D2LogicalModel:payloadPublication> [0..1]
    <<u>D2LogicalModel</u>:d2LogicalModelExtension> <u>D2LogicalModel</u>:_<u>ExtensionType</u> </<u>D2LogicalModel</u>:d2LogicalModelExtension>
 </<u>D2LogicalModel</u>:d2LogicalModel>
```

Schema Component Representation

```
<xs:element name="d2LogicalModel" type="D2LogicalModel:D2LogicalModel"/>
```

Global Definitions

Complex Type: AffectedCarriagewayAndLanes

Super-types: None Sub-types. None

Name AffectedCarriagewayAndLanes

<u>Abstract</u> no

Documentation Supplementary positional information which details carriageway and lane locations. Several instances may

exist where the element being described extends over more than one carriageway

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XML Instance Representation

```
<...>
    <<u>D2LogicalModel</u>:carriageway> <u>D2LogicalModel</u>:<u>CarriagewayEnum</u> </<u>D2LogicalModel</u>:carriageway> [1] ?
    <<u>D2LogicalModel</u>:lane> <u>D2LogicalModel</u>:LaneEnum </<u>D2LogicalModel</u>:lane> [0..*] ?
    <<u>D2LogicalModel</u>:footpath> <u>D2LogicalModel</u>:Boolean </<u>D2LogicalModel</u>:footpath> [0..1] ?
    <<u>D2LogicalModel</u>:lengthAffected> <u>D2LogicalModel</u>:MetresAsFloat </<u>D2LogicalModel</u>:lengthAffected> [0..1] ?
    <<u>D2LogicalModel</u>:affectedCarriagewayAndLanesExtension> <u>D2LogicalModel</u>:_ExtensionType
    </<u>D2LogicalModel</u>:affectedCarriagewayAndLanesExtension> [0..1]
</...>
```

Schema Component Representation

<u>top</u>

Complex Type: AlertCDirection

 Super-types:
 None

 Sub-types:
 None

Name AlertCDirection

<u>Abstract</u> no

Documentation The direction of traffic flow along the road to which the information relates.

XML Instance Representation

```
<...>
<D2LogicalModel:alertCDirectionCoded> D2LogicalModel:AlertCDirectionEnum </D2LogicalModel:alertCDirectionCoded>
[1] ?

<D2LogicalModel:alertCDirectionNamed> D2LogicalModel:MultilingualString </D2LogicalModel:alertCDirectionNamed>
[0..1] ?

<D2LogicalModel:alertCDirectionSense> D2LogicalModel:Boolean </D2LogicalModel:alertCDirectionSense> [0..1] ?

<D2LogicalModel:alertCDirectionExtension> D2LogicalModel: ExtensionType </D2LogicalModel:alertCDirectionExtension>
[0..1]
```

Schema Component Representation

<u>top</u>

Complex Type: AlertCLocation

Super-types: None
Sub-types: None

Name AlertCLocation

<u>Abstract</u> no

Documentation Identification of a specific point, linear or area location in an ALERT-C location table.

XML Instance Representation

```
<...>
    <<u>D2LogicalModel</u>:alertCLocationName> <u>D2LogicalModel</u>:MultilingualString </<u>D2LogicalModel</u>:alertCLocationName> [0..1]
    ?
    <<u>D2LogicalModel</u>:specificLocation> <u>D2LogicalModel</u>:AlertCLocationCode </<u>D2LogicalModel</u>:specificLocation> [1]    ?
    <<u>D2LogicalModel</u>:alertCLocationExtension> <u>D2LogicalModel</u>: <u>ExtensionType</u> </<u>D2LogicalModel</u>:alertCLocationExtension> [0..1]
    </...>
```

Schema Component Representation

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Complex Type: AlertCMethod4Point

Sub-types: None

Name AlertCMethod4Point

<u>Abstract</u> no

Documentation A single point on the road network defined by reference to a point in a pre-defined ALERT-C location table

plus an offset distance and which has an associated direction of traffic flow.

XML Instance Representation

Schema Component Representation

Complex Type: AlertCMethod4PrimaryPointLocation

None

Super-types: None

Name AlertCMethod4PrimaryPointLocation

<u>Abstract</u> no

Documentation The point (called Primary point) which is either a single point or at the downstream end of a linear road

section. The point is specified by a reference to a point in a pre-defined ALERT-C location table plus a non-negative effect distance.

negative offset distance.

XML Instance Representation

Sub-types.

```
<...>
<<u>D2LogicalModel</u>:alertCLocation> <u>D2LogicalModel:AlertCLocation</u> </<u>D2LogicalModel</u>:alertCLocation> [1]
<<u>D2LogicalModel</u>:offsetDistance> <u>D2LogicalModel:OffsetDistance</u> </<u>D2LogicalModel</u>:offsetDistance> [1]
<<u>D2LogicalModel</u>:alertCMethod4PrimaryPointLocationExtension> <u>D2LogicalModel:ExtensionType</u>
</<u>D2LogicalModel</u>:alertCMethod4PrimaryPointLocationExtension> [0..1]
</...>
```

Schema Component Representation

Complex Type: AlertCPoint

Super-types: None
Sub-types:

• AlertCMethod4Point (by extension)

Name AlertCPoint
Abstract yes

Documentation A single point on the road network defined by reference to a pre-defined ALERT-C location table and which

has an associated direction of traffic flow.

XML Instance Representation

```
<...>
    <<u>D2LogicalModel</u>:alertCLocationCountryCode> <u>D2LogicalModel</u>:String </<u>D2LogicalModel</u>:alertCLocationCountryCode> [1] ?
    <<u>D2LogicalModel</u>:alertCLocationTableNumber> <u>D2LogicalModel</u>:String </<u>D2LogicalModel</u>:alertCLocationTableNumber> [1] ?
    <<u>D2LogicalModel</u>:alertCLocationTableVersion> <u>D2LogicalModel</u>:String </<u>D2LogicalModel</u>:alertCLocationTableVersion> [1] ?
    <<u>D2LogicalModel</u>:alertCPointExtension> <u>D2LogicalModel</u>:_ExtensionType </<u>D2LogicalModel</u>:alertCPointExtension> [0..1]
<//...>
```

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Schema Component Representation

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Complex Type: ApplicationRateValue

 Super-types:
 DataValue < ApplicationRateValue (by extension)</th>

 Sub-types:
 None

Name ApplicationRateValue

<u>Abstract</u> no

Documentation A measured or calculated value of the application rate of a substance.

XML Instance Representation

Schema Component Representation

top

Complex Type: AxleFlowValue

 Super-types:
 DataValue
 AxleFlowValue
 (by extension)

 Sub-types:
 None

Name AxleFlowValue
Abstract no

Documentation A measured or calculated value of the flow rate of vehicle axles

XML Instance Representation

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```
</xs:extension>
</xs:complexContent>
</xs:complexType>
```

Complex Type: BasicData

```
Super-types:

None

Sub-types:

• TrafficData (by extension)

• TrafficConcentration (by extension)

• TrafficFlow (by extension)

• TrafficHeadway (by extension)

• TrafficSpeed (by extension)
```

NameBasicDataAbstractyes

DocumentationData that is either measured or calculated (elaborated) at the same time or over the same time period.

XML Instance Representation

Schema Component Representation

Complex Type: ConcentrationOfVehiclesValue

 Super-types:
 DataValue
 ConcentrationOfVehiclesValue (by extension)

 Sub-types:
 None

Name ConcentrationOfVehiclesValue

<u>Abstract</u> no

Documentation A measured or calculated value of the concentration of vehicles on a unit stretch of road in a given direction.

XML Instance Representation

Super-types: None
Sub-types: None

Name D2LogicalModel

<u>Abstract</u> ne

Documentation The DATEX II logical model comprising exchange, content payload and management sub-models.

XML Instance Representation

Schema Component Representation

Complex Type: DataValue

Super-types: None Sub-types: ApplicationRateValue (by extension) AxleFlowValue (by extension)

ConcentrationOfVehiclesValue (by extension) <u>DateTimeValue</u> (by extension) <u>DirectionBearingValue</u> (by extension) <u>DirectionCompassValue</u> (by extension) <u>DurationValue</u> (by extension) FloatingPointMetreDistanceValue (by extension) IntegerMetreDistanceValue (by extension) <u>KilogramsConcentrationValue</u> (by extension) <u>MicrogramsConcentrationValue</u> (by extension) OccupancyChangeValue (by extension) PcuFlowValue (by extension)
PercentageValue (by extension)
PrecipitationIntensityValue (by extension) SpeedValue (by extension) Temperature Value (by extension) TrafficStatusValue (by extension) VehicleCountValue (by extension)
VehicleFlowValue (by extension)

Name DataValue
Abstract yes

Documentation

A data value of something that can be measured or calculated. Any provided meta-data values specified in the attributes override any specified generic characteristics such as defined for a specific measurement in the MeasurementSiteTable.

XML Instance Representation

```
<...
accuracy="D2LogicalModel:Percentage [0..1] ?"
computationalMethod="D2LogicalModel:ComputationMethodEnum [0..1] ?"
numberOfIncompleteInputs="D2LogicalModel:NonNegativeInteger [0..1] ?"
numberOfInputValuesUsed="D2LogicalModel:NonNegativeInteger [0..1] ?"
smoothingFactor="D2LogicalModel:Float [0..1] ?"
standardDeviation="D2LogicalModel:Float [0..1] ?"
standardDeviation="D2LogicalModel:Float [0..1] ?"
supplierCalculatedDataQuality="D2LogicalModel:Percentage [0..1] ?">
<D2LogicalModel:dataError> D2LogicalModel:Boolean </D2LogicalModel:dataError> [0..1] ?</D2LogicalModel:reasonForDataError> D2LogicalModel:MultilingualString </D2LogicalModel:reasonForDataError> [0..1] ?

<D2LogicalModel:dataValueExtension> D2LogicalModel: ExtensionType </D2LogicalModel:dataValueExtension> [0..1]
```

Schema Component Representation

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Complex Type: DateTimeValue

Super-types: DataValue < DateTimeValue (by extension)

Sub-types: None

Name DateTimeValue

<u>Abstract</u> no

Documentation A measured or calculated value of an instance in time.

XML Instance Representation

Schema Component Representation

Complex Type: DirectionBearingValue

 Super-types:
 DataValue
 DirectionBearingValue (by extension)

 Sub-types:
 None

Name DirectionBearingValue

<u>Abstract</u> no

Documentation A measured or calculated value of direction as a bearing

XML Instance Representation

Schema Component Representation

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Complex Type: DirectionCompassValue

Super-types:	<u>DataValue</u> < DirectionCompassValue (by extension)
Sub-types:	None

<u>Abstract</u> r

Documentation A

A measured or calculated value of direction as a point of the compass.

```
XML Instance Representation
```

```
<...
accuracy="D2LogicalModel:Percentage [0..1] ?"
computationalMethod="D2LogicalModel:ComputationMethodEnum [0..1] ?"
numberOfIncompleteInputs="D2LogicalModel:NonNegativeInteger [0..1] ?"
numberOfInputValuesUsed="D2LogicalModel:NonNegativeInteger [0..1] ?"
smoothingFactor="D2LogicalModel:Float [0..1] ?"
smoothingFactor="D2LogicalModel:Float [0..1] ?"
standardDeviation="D2LogicalModel:Float [0..1] ?"
supplierCalculatedDataQuality="D2LogicalModel:Percentage [0..1] ?">
< D2LogicalModel:dataError> D2LogicalModel:Boolean </D2LogicalModel:dataError> [0..1] ?
< D2LogicalModel:reasonForDataError> D2LogicalModel:MultilingualString </D2LogicalModel:reasonForDataError> [0..1] ?
< D2LogicalModel:dataValueExtension> D2LogicalModel:_ExtensionType </D2LogicalModel:dataValueExtension> [0..1] 

<D2LogicalModel:directionCompass> D2LogicalModel:DirectionCompassEnum
```

Schema Component Representation

Complex Type: DistanceAlongLinearElement

Super-types: Sub-types:

• <u>DistanceFromLinearElementStart</u> (by extension)

Name DistanceAlongLinearElement

None

<u>Abstract</u> ye

DocumentationDistance of a point along a linear element either measured from the start node or a defined referent on that

linear element, where the start node is relative to the element definition rather than the direction of traffic

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flow.

XML Instance Representation

```
<...>
<...>
    <<u>D2LogicalModel</u>:distanceAlongLinearElementExtension> <u>D2LogicalModel</u>:_<u>ExtensionType</u>
    </<u>D2LogicalModel</u>:distanceAlongLinearElementExtension> [0..1]
</...>
```

Schema Component Representation

Complex Type: DistanceFromLinearElementStart

Super-types: <u>DistanceAlongLinearElement</u> < **DistanceFromLinearElementStart** (by extension)

Sub-types: None

Name DistanceFromLinearElementStart

<u>Abstract</u> no

Documentation Distance of a point along a linear element measured from the start node of the linear element, where start

node is relative to the element definition rather than the direction of traffic flow.

XML Instance Representation

```
<xs:element name="distanceFromLinearElementStartExtension" type="D2LogicalModel:_ExtensionType"</pre>
         minOccurs="0"/>
       </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

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Complex Type: DurationValue

```
Super-types:
                                 <u>DataValue</u> < DurationValue (by extension)
Sub-types.
```

Name DurationValue

Abstract

Documentation A measured or calculated value of a period of time.

```
XML Instance Representation
                                           "D2LogicalModel:Percentage [0..1] ?"
      computationalMethod="D2LogicalModel:ComputationMethodEnum [0..1]
      numberOfIncompleteInputs="D2LogicalModel:NonNegativeInteger [0..1]
      numberOfInputValuesUsed="D2LogicalModel:NonNegativeInteger [0..1] ?"
      smoothingFactor="D2LogicalModel:Float [0..1] ?"
      standardDeviation="D2LogicalModel:Float [0..1] ?"
      supplierCalculatedDataQuality="D2LogicalModel:Percentage [0..1] ?">
            <D2LogicalModel:dataError> D2LogicalModel:Boolean /D2LogicalModel:dataError> [0..1] ?
               <u>P2LogicalModel</u>:reasonForDataError> <u>D2LogicalModel:MultilingualString</u> </<u>D2LogicalModel</u>
                                                                                                                                                                                                                                                                                                                                                                               easonForDataError> [0..1]
             <D2LogicalModel:dataValueExtension> D2LogicalModel: ExtensionType 

CD2LogicalModel:dataValueExtension> [0..1]
             <D2LogicalModel:duration> D2LogicalModel:Seconds D2LogicalModel:duration> [1]
              \langle \underline{D2LogicalModel}: durationValueExtension > \underline{D2LogicalModel}: \underline{ExtensionType} < \langle \underline{D2LogicalModel}: durationValueExtension > \underline{D2LogicalModel}: \underline{D2Logic
             [0..1]
```

Schema Component Representation

```
<xs:complexType name="DurationValue">
  <xs:complexContent>
    <xs:extension base="D2LogicalModel:DataValue">
       <xs:sequence>
          <xs:element name="duration" type="D2LogicalModel:Seconds" minOccurs="1" maxOccurs="1"/>
          <xs:element name="durationValueExtension" type="D2LogicalModel:_ExtensionType" minOccurs="0"/>
       </xs:sequence>
     </xs:extension>
</xs:complexContent>
//xs:complexType>
```

<u>top</u>

Complex Type: ElaboratedData

Super-types:	None	
Sub-types:	None	

ElaboratedData

Abstract

Documentation An instance of data which is derived/computed from one or more measurements over a period of time. It may

be a current value or a forecast value predicted from historical measurements.

XML Instance Representation

```
<u>LogicalModel</u>:source> <u>D2LogicalModel</u>:Source </<u>D2LogicalModel</u>:source> [0..1]
<<u>D2LogicalModel</u>:elaboratedDataFault> <u>D2LogicalModel</u>:<u>ElaboratedDataFault</u> </<u>D2LogicalModel</u>:elaboratedDataFault>
<Pol>
<Pol<</p>
<Pol>
<
<<u>D2LogicalModel</u>:elaboratedDataExtension> <u>D2LogicalModel</u>:_<u>ExtensionType</u> </<u>D2LogicalModel</u>:elaboratedDataExtension>
[0..1]
```

Schema Component Representation

```
<xs:complexType name="ElaboratedData">
            <xs:sequence>
                           <xs:element name="source" type="D2LogicalModel:Source" minOccurs="0"/>

<a href="mailto:source">
<a href="mailto:source">
<a href="mailto:source">
<a href="mailto:source">
<a href="mailto:source"
<a href="mailto:source">
<a href="mailto:source"
<a href="mailto:source">mailto:source</a>
<a href="mailto:source"
<a href="mai
                           <xs:element name="basicData" type="D2LogicalModel:BasicData" minOccurs="0"/>
                           <xs:element name="elaboratedDataExtension" type="D2LogicalModel:_ExtensionType" minOccurs="0"/>
            </xs:sequence>
  </xs:complexType>
```

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Complex Type: ElaboratedDataFault

```
Super-types:
                              Fault < ElaboratedDataFault (by extension)
Sub-types.
```

Name ElaboratedDataFault

Abstract no

Documentation Details of a fault which is being reported for the related elaborated data.

XML Instance Representation

Schema Component Representation

Complex Type: ElaboratedDataPublication

Super-types: PayloadPublication < ElaboratedDataPublication (by extension)

Sub-types: None

Name ElaboratedDataPublication

<u>Abstract</u> no

Documentation A publication containing one or more elaborated data sets.

XML Instance Representation

Schema Component Representation

Complex Type: Exchange

```
Super-types: None
Sub-types: None
```

Name Exchange Abstract no

Documentation Details associated with the management of the exchange between the supplier and the client.

XML Instance Representation

```
<...>
<...>
<<u>D2LogicalModel</u>:supplierIdentification> <u>D2LogicalModel</u>:InternationalIdentifier
</<u>D2LogicalModel</u>:supplierIdentification> [1]
<<u>D2LogicalModel</u>:exchangeExtension> <u>D2LogicalModel</u>:_ExtensionType </<u>D2LogicalModel</u>:exchangeExtension> [0..1]
</...>
```

Schema Component Representation

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Complex Type: Fault

```
Super-types: None
Sub-types:

• ElaboratedDataFault (by extension)
```

Name Fault
Abstract no

Documentation Information about a fault relating to a specific piece of equipment or process.

XML Instance Representation

```
<...>
     <<u>D2LogicalModel</u>:faultIdentifier> <u>D2LogicalModel</u>:String </<u>D2LogicalModel</u>:faultIdentifier> [0..1] ?
     <<u>D2LogicalModel</u>:faultDescription> <u>D2LogicalModel</u>:String </<u>D2LogicalModel</u>:faultDescription> [0..1] ?
     <<u>D2LogicalModel</u>:faultCreationTime> <u>D2LogicalModel</u>:DateTime </<u>D2LogicalModel</u>:faultCreationTime> [0..1] ?
     <<u>D2LogicalModel</u>:faultLastUpdateTime> <u>D2LogicalModel</u>:DateTime </<u>D2LogicalModel</u>:faultLastUpdateTime> [1] ?
     <<u>D2LogicalModel</u>:faultSeverity> <u>D2LogicalModel</u>:FaultSeverityEnum </<u>D2LogicalModel</u>:faultSeverity> [0..1] ?
     <<u>D2LogicalModel</u>:faultExtension> <u>D2LogicalModel</u>:_ExtensionType </<u>D2LogicalModel</u>:faultExtension> [0..1]
```

Schema Component Representation

Complex Type: FloatingPointMetreDistanceValue

Super-types: DataValue < FloatingPointMetreDistanceValue (by extension)
Sub-types: None

Name FloatingPointMetreDistanceValue

<u>Abstract</u> no

Documentation A measured or calculated value of distance in metres in a floating point format.

XML Instance Representation

Schema Component Representation

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Super-types: None

Sub-types:

- Location (by extension)
- NetworkLocation (by extension)
- Point (by extension)

Name GroupOfLocations

<u>Abstract</u> yes

Documentation

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

may be unrelated. It is not for identifying the same physical location using different Location objects for

different referencing systems.

XML Instance Representation

```
<...>
    <<u>D2LogicalModel</u>:groupOfLocationsExtension> <u>D2LogicalModel</u>: <u>ExtensionType</u>
    </<u>D2LogicalModel</u>:groupOfLocationsExtension> [0..1]
    </...>
```

Schema Component Representation

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Complex Type: HeaderInformation

Super-types: None
Sub-types: None

Name HeaderInformation

<u>Abstract</u> no

Documentation Management information relating to the data contained within a publication.

XML Instance Representation

```
<...>
    <<u>D2LogicalModel</u>:areaOfInterest> <u>D2LogicalModel</u>:AreaOfInterestEnum </<u>D2LogicalModel</u>:areaOfInterest> [0..1] ?
    <<u>D2LogicalModel</u>:confidentiality> <u>D2LogicalModel</u>:ConfidentialityValueEnum </<u>D2LogicalModel</u>:confidentiality> [1] ?
    <<u>D2LogicalModel</u>:informationStatus> <u>D2LogicalModel</u>:InformationStatusEnum </<u>D2LogicalModel</u>:informationStatus> [1] ?
    <<u>D2LogicalModel</u>:urgency> <u>D2LogicalModel</u>:UrgencyEnum </<u>D2LogicalModel</u>:urgency> [0..1] ?
    <<u>D2LogicalModel</u>:headerInformationExtension> <u>D2LogicalModel</u>: <u>ExtensionType</u>
    </<u>D2LogicalModel</u>:headerInformationExtension> [0..1]
```

Schema Component Representation

top

Complex Type: IntegerMetreDistanceValue

Super-types: DataValue < IntegerMetreDistanceValue (by extension)

Sub-types: None

Name IntegerMetreDistanceValue

<u>Abstract</u> no

Documentation A measured or calculated value of distance in whole metres.

XML Instance Representation

```
<...
accuracy="D2LogicalModel:Percentage [0..1] ?"
computationalMethod="D2LogicalModel:ComputationMethodEnum [0..1] ?"
numberOfIncompleteInputs="D2LogicalModel:NonNegativeInteger [0..1] ?"
numberOfInputValuesUsed="D2LogicalModel:NonNegativeInteger [0..1] ?"
smoothingFactor="D2LogicalModel:Float [0..1] ?"
standardDeviation="D2LogicalModel:Float [0..1] ?"
standardDeviation="D2LogicalModel:Float [0..1] ?"
supplierCalculatedDataQuality="D2LogicalModel:Percentage [0..1] ?">
< D2LogicalModel:dataError> D2LogicalModel:Boolean </ D2LogicalModel:dataError> [0..1] ?
< D2LogicalModel:reasonForDataError> D2LogicalModel:MultilingualString </ D2LogicalModel:reasonForDataError> [0..1]
?
< D2LogicalModel:integerMetreDistance> D2LogicalModel:MetresAsNonNegativeInteger
</ D2LogicalModel:integerMetreDistance> D2LogicalModel:Extension> D2LogicalModel:ExtensionType
</ D2LogicalModel:integerMetreDistanceValueExtension> D2LogicalModel:ExtensionType
</ D2LogicalModel:integerMetreDistanceValueExtension> [0..1]
```

Schema Component Representation

top

Complex Type: InternationalIdentifier

```
Super-types: None
Sub-types: None
```

Name InternationalIdentifier

<u>Abstract</u> no

Documentation An identifier/name whose range is specific to the particular country.

XML Instance Representation

```
<...>
    <<u>D2LogicalModel</u>:country> <u>D2LogicalModel</u>:<u>CountryEnum</u> </<u>D2LogicalModel</u>:country> [1] ?
    <<u>D2LogicalModel</u>:nationalIdentifier> <u>D2LogicalModel</u>:String </<u>D2LogicalModel</u>:nationalIdentifier> [1] ?
    <<u>D2LogicalModel</u>:internationalIdentifierExtension> <u>D2LogicalModel</u>:_ExtensionType
    </<u>D2LogicalModel</u>:internationalIdentifierExtension> [0..1]
</...>
```

Schema Component Representation

top

Complex Type: KilogramsConcentrationValue

Super-types: DataValue < KilogramsConcentrationValue (by extension)

Sub-types: None

Name KilogramsConcentrationValue

<u>Abstract</u> no

Documentation A measured or calculated value of concentration of a substance in grams per unit volume.

XML Instance Representation

Schema Component Representation

<u>top</u>

Super-types: None

Sub-types:

• <u>LinearElementByCode</u> (by extension)

Name LinearElement

<u>Abstract</u> no

Documentation A linear element along a single linear object, consistent with ISO 19148 definitions.

XML Instance Representation

```
<...>
    <<u>D2LogicalModel</u>:roadName> <u>D2LogicalModel</u>:<u>MultilingualString</u> </<u>D2LogicalModel</u>:roadName> [0..1] ?
    <<u>D2LogicalModel</u>:linearElementExtension> <u>D2LogicalModel</u>: <u>ExtensionType</u> </<u>D2LogicalModel</u>:linearElementExtension>
    [0..1]
</...>
```

Schema Component Representation

Complex Type: LinearElementByCode

Super-types: LinearElement < LinearElementBvCode (by extension)

Sub-types: None

Name LinearElementByCode

<u>Abstract</u> no

Documentation A linear element along a single linear object defined by its identifier or code in a road network reference

model (specified in LinearElement class) which segments the road network according to specific business

rules.

XML Instance Representation

```
<D2LogicalModel:roadName> D2LogicalModel:MultilingualString 
/D2LogicalModel:roadName> [0..1] ?
<D2LogicalModel:linearElementExtension> D2LogicalModel:_ExtensionType 
/D2LogicalModel:linearElementExtension>
[0..1] ?

<D2LogicalModel:String </pre>
/D2LogicalModel:linearElementIdentifier> D2LogicalModel:String 
/D2LogicalModel:linearElementByCodeExtension> D2LogicalModel:_ExtensionType

/D2LogicalModel:linearElementByCodeExtension> [0..1]
```

Schema Component Representation

Complex Type: Location

Super-types: <u>GroupOfLocations</u> < **Location** (by extension)

Sub-types:

<u>NetworkLocation</u> (by extension)
 <u>Point</u> (by extension)

Name Location
Abstract yes

Documentation 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.

XML Instance Representation

```
<...>
    <<u>D2LogicalModel</u>:groupOfLocationsExtension> <u>D2LogicalModel</u>:_ExtensionType
    </<u>D2LogicalModel</u>:groupOfLocationsExtension> [0..1]

    <<u>D2LogicalModel</u>:locationForDisplay> <u>D2LogicalModel</u>:PointCoordinates </<u>D2LogicalModel</u>:locationForDisplay> [0..1] ?
    </<u>D2LogicalModel</u>:locationExtension> <u>D2LogicalModel</u>: <u>ExtensionType</u> </<u>D2LogicalModel</u>:locationExtension> [0..1] ?
</...>
```

Schema Component Representation

top

top

<u>top</u>

Complex Type: MicrogramsConcentrationValue

Super-types: <u>DataValue</u> < **MicrogramsConcentrationValue** (by extension)

Sub-types: None

Name MicrogramsConcentrationValue

<u>Abstract</u> no

Documentation A measured or calculated value of concentration of a substance in micrograms per unit volume.

XML Instance Representation

Schema Component Representation

top

Complex Type: MultilingualString

Super-types: None
Sub-types: None

Name MultilingualString

<u>Abstract</u> no

XML Instance Representation

Schema Component Representation

<u>top</u>

Complex Type: MultilingualStringValue

```
    Super-types:
    xs:string < MultilingualStringValueType (by restriction) < MultilingualStringValue (by extension)</td>

    Sub-types:
    None
```

Name

MultilingualStringValue

<u>Abstract</u>

no

XML Instance Representation

```
<...
lang="xs:language [0..1]">
D2LogicalModel:MultilingualStringValueType
</...>
```

Schema Component Representation

Complex Type: NetworkLocation

Super-types: GroupOfLocations < Location (by extension) < NetworkLocation (by extension)

Sub-types:

Point (by extension)

Name NetworkLocation

<u>Abstract</u> yes

Documentation The specification of a location on a network (as a point or a linear location).

XML Instance Representation

Schema Component Representation

Complex Type: OccupancyChangeValue

Super-types: DataValue < OccupancyChangeValue (by extension)
Sub-types: None

Name OccupancyChangeValue

<u>Abstract</u> no

Documentation A measured or calculated value of change of occupied parking spaces expressed as integer.

XML Instance Representation

Schema Component Representation

<u>top</u>

<u>top</u>

<u>top</u>

top

```
</xs:sequence>
    </xs:extension>
 </xs:complexContent>
/xs:complexType>
```

Complex Type: OffsetDistance

Super-types: None Sub-types. None

OffsetDistance Name <u>Abstract</u> no

Documentation The non negative offset distance from the ALERT-C referenced point to the actual point.

XML Instance Representation

```
<<u>D2LogicalModel</u>:offsetDistance> <u>D2LogicalModel:MetresAsNonNegativeInteger</u> </<u>D2LogicalModel</u>:offsetDistance> [1] ?
<<u>D2LogicalModel</u>:offsetDistanceExtension> <u>D2LogicalModel:_ExtensionType</u> </<u>D2LogicalModel</u>:offsetDistanceExtension>
```

Schema Component Representation

```
<xs:complexType name="OffsetDistance">
  <xs:sequence>
     <xs:element name="offsetDistance" type="D2LogicalModel:MetresAsNonNegativeInteger" minOccurs="1" maxOccurs="1"/>
     <xs:element name="offsetDistanceExtension" type="D2LogicalModel:_ExtensionType"</pre>
                                                                                        minOccurs="0"/>
  </xs:sequence>
</xs:complexType>
```

Complex Type: OpenIrBaseLocationReferencePoint

Super-types: Sub-types.

None

- OpenIrLastLocationReferencePoint (by extension)
- OpenIrLocationReferencePoint (by extension)

OpenIrBaseLocationReferencePoint

Abstract yes

Documentation Base class used to hold data about a reference point.

XML Instance Representation

```
<<u>PDLogicalModel</u>:openlrCoordinate> <u>D2LogicalModel</u>:<u>PointCoordinates</u> </<u>D2LogicalModel</u>:openlrCoordinate> [1]
<<u>PDLogicalModel</u>:openlrLineAttributes> <u>D2LogicalModel</u>:<u>OpenlrLineAttributes</u> </<u>D2LogicalModel</u>:openlrLineAttributes>
<<u>^D2LogicalModel</u>:openlrBaseLocationReferencePointExtension> <u>D2LogicalModel</u>: <u>ExtensionType</u>

<p
```

Schema Component Representation

```
<xs:complexType name="OpenlrBaseLocationReferencePoint" abstract="true">
       <xs:element name="openlrCoordinate" type="D2LogicalModel:PointCoordinates"/>
<xs:element name="openlrLineAttributes" type="D2LogicalModel:OpenlrLineAttributes"/>
<xs:element name="openlrBaseLocationReferencePointExtension" type="D2LogicalModel:_E</pre>
                                                                                                                 type="D2LogicalModel: ExtensionType'
       minOccurs="0"/>
   </xs:sequence>
</xs:complexType>
```

top

Complex Type: OpenIrBasePointLocation

Super-types. None

OpenIrPointAlongLine (by extension)
 OpenIrPoiWithAccessPoint (by extension)

Name OpenIrBasePointLocation

Abstract yes

Documentation Holds common data that are used both in OpenIrPointAccessPoint and OpenIrPointAlongLine.

XML Instance Representation

Sub-types:

```
<<u>D2LogicalModel</u>:openlrSideOfRoad> <u>D2LogicalModel</u>:<u>OpenlrSideOfRoadEnum</u> </<u>D2LogicalModel</u>:openlrSideOfRoad> [1]
<<u>D2LogicalModel</u>:openlrOrientation> <u>D2LogicalModel</u>:OpenlrOrientationEnum </<u>D2LogicalModel</u>:openlrOrientation> [1] ?
<D2LogicalModel:openlrPositiveOffset> D2LogicalModel:MetresAsNonNegativeInteger
/D2LogicalModel:openlrPositiveOffset> [0..1] ?
<D2LogicalModel:openlrLocationReferencePoint> D2LogicalModel:OpenlrLocationReferencePoint
/D2LogicalModel:openlrLocationReferencePoint> [1]
<<u>D2LogicalModel</u>:openlrLastLocationReferencePoint> <u>D2LogicalModel:OpenlrLastLocationReferencePoint</u>
/D2LogicalModel:openlrLastLocationReferencePoint> [1]
```

```
<D2LogicalModel:openlrBasePointLocationExtension> D2LogicalModel:_ExtensionType
</D2LogicalModel:openlrBasePointLocationExtension> [0..1]
</...>
```

Schema Component Representation

<u>top</u>

Complex Type: OpenIrExtendedPoint

Super-types: None
Sub-types: None

Name OpenIrExtendedPoint

<u>Abstract</u> no

Documentation Extension class for OpenLR point.

XML Instance Representation

```
<...>
<<u>D2LogicalModel</u>:openlrPointLocationReference> <u>D2LogicalModel</u>:<u>OpenlrPointLocationReference</u>
</<u>D2LogicalModel</u>:openlrPointLocationReference> [1]
</...>
```

Schema Component Representation

top

Complex Type: OpenIrGeoCoordinate

```
Super-types: None
Sub-types: None
```

Name OpenIrGeoCoordinate

<u>Abstract</u> no

Documentation A geo-coordinate pair is a position in a map defined by its longitude and latitude coordinate values.

XML Instance Representation

```
<...>
<<u>D2LogicalModel</u>:openlrCoordinate> <u>D2LogicalModel</u>:<u>PointCoordinates</u> </<u>D2LogicalModel</u>:openlrCoordinate> [1]
<<u>D2LogicalModel</u>:openlrGeoCoordinateExtension> <u>D2LogicalModel</u>:_<u>ExtensionType</u>
</<u>D2LogicalModel</u>:openlrGeoCoordinateExtension> [0..1]
</...>
```

Schema Component Representation

top

Complex Type: OpenIrLastLocationReferencePoint

 Super-types:
 OpenIrBaseLocationReferencePoint (by extension)

 Sub-types:
 None

Name OpenIrLastLocationReferencePoint

<u>Abstract</u> no

Documentation The sequence of location reference points is terminated by a last location reference point.

XML Instance Representation

```
<D2LogicalModel:openlrLastLocationReferencePointExtension> D2LogicalModel:_ExtensionType
```

Schema Component Representation

top

Complex Type: OpenIrLineAttributes

Super-types: None
Sub-types: None

Name OpenIrLineAttributes

<u>Abstract</u> no

DocumentationLine attributes are part of a location reference point and consists of functional road class (FRC), form of way

(FOW) and bearing (BEAR) data.

XML Instance Representation

Schema Component Representation

top

Complex Type: OpenIrLocationReferencePoint

 Super-types:
 OpenIrBaseLocationReferencePoint (by extension)

 Sub-types:
 None

Name OpenIrLocationReferencePoint

<u>Abstract</u> no

Documentation The basis of a location reference is a sequence of location reference points (LRPs).

XML Instance Representation

Super-types: None
Sub-types: None

Name OpenIrPathAttributes

<u>Abstract</u> no

Documentation The field path attributes is part of a location reference point (except for the last location reference point) and

consists of lowest functional road class (LFRCNP) and distance to next point (DNP) data.

XML Instance Representation

```
<...>
     <<u>D2LogicalModel</u>:openlrLowestFRCToNextLRPoint> <u>D2LogicalModel</u>:<u>OpenlrFunctionalRoadClassEnum</u>
     </<u>D2LogicalModel</u>:openlrLowestFRCToNextLRPoint> [1] ?
     <<u>D2LogicalModel</u>:openlrDistanceToNextLRPoint> <u>D2LogicalModel</u>:<u>NonNegativeInteger</u>
     </<u>D2LogicalModel</u>:openlrDistanceToNextLRPoint> [1] ?
     <<u>D2LogicalModel</u>:openlrPathAttributesExtension> <u>D2LogicalModel</u>: <u>ExtensionType</u>
     </<u>D2LogicalModel</u>:openlrPathAttributesExtension> [0..1]
</...>
```

Schema Component Representation

Complex Type: OpenIrPoiWithAccessPoint

 Super-types:
 OpenIrBasePointLocation < OpenIrPoiWithAccessPoint (by extension)</th>

 Sub-types:
 None

Name OpenIrPoiWithAccessPoint

<u>Abstract</u> no

Documentation Point along line with access is a point location which is defined by a line, an offset value and a coordinate.

XML Instance Representation

Schema Component Representation

Complex Type: OpenIrPointAlongLine

 Super-types:
 OpenIrBasePointLocation
 OpenIrPointAlongLine (by extension)

 Sub-types:
 None

Name OpenIrPointAlongLine

<u>Abstract</u> no

Documentation Point along a line

XML Instance Representation

```
<...>
    <<u>D2LogicalModel</u>:openlrSideOfRoad> <u>D2LogicalModel:OpenlrSideOfRoadEnum</u> </<u>D2LogicalModel</u>:openlrSideOfRoad> [1] ?
    <<u>D2LogicalModel</u>:openlrOrientation> <u>D2LogicalModel:OpenlrOrientationEnum</u> </<u>D2LogicalModel</u>:openlrOrientation> [1] ?
    <<u>D2LogicalModel</u>:openlrPositiveOffset> <u>D2LogicalModel:MetresAsNonNegativeInteger</u>
    </<u>D2LogicalModel</u>:openlrPositiveOffset> [0..1] ?
```

<u>top</u>

top

Schema Component Representation

<u>top</u>

Complex Type: OpenIrPointLocationReference

 Super-types:
 None

 Sub-types:
 None

Name OpenIrPointLocationReference

<u>Abstract</u> no

Documentation A point location is a zero-dimensional element in a map that specifies a geometric location.

XML Instance Representation

```
<...>
    <<u>D2LogicalModel</u>:openlrGeoCoordinate> <u>D2LogicalModel</u>:OpenlrGeoCoordinate </<u>D2LogicalModel</u>:openlrGeoCoordinate>
    [0..1]
    <<u>D2LogicalModel</u>:openlrPoiWithAccessPoint> <u>D2LogicalModel</u>:OpenlrPoiWithAccessPoint
    </<u>D2LogicalModel</u>:openlrPoiWithAccessPoint> [0..1]
    <<u>D2LogicalModel</u>:openlrPointAlongLine> <u>D2LogicalModel</u>:OpenlrPointAlongLine </<u>D2LogicalModel</u>:openlrPointAlongLine>
    [0..1]
    <<u>D2LogicalModel</u>:openlrPointLocationReferenceExtension> <u>D2LogicalModel</u>: <u>ExtensionType</u>
    </<u>D2LogicalModel</u>:openlrPointLocationReferenceExtension> [0..1]
```

Schema Component Representation

top

Complex Type: PayloadPublication

Super-types: None
Sub-types:

• ElaboratedDataPublication (by extension)

Name PayloadPublication

<u>Abstract</u> yes

DocumentationA payload publication of traffic related information or associated management information created at a

specific point in time that can be exchanged via a DATEX II interface.

XML Instance Representation

Complex Type: PcuFlowValue

Super-types: DataValue < PcuFlowValue (by extension)

Sub-types: None

Name PcuFlowValue
Abstract no

Documentation A measured or calculated value of the flow rate of passenger car units.

XML Instance Representation

Schema Component Representation

Complex Type: PercentageValue

 Super-types:
 DataValue
 PercentageValue (by extension)

 Sub-types:
 None

Name Percentage Value

<u>Abstract</u> no

Documentation A measured or calculated value expressed as a percentage

XML Instance Representation

Schema Component Representation

Complex Type: Point

 Super-types:
 GroupOfLocations < Location (by extension) < NetworkLocation (by extension) < Point (by extension)</th>

 Sub-types:
 None

Name Point

<u>top</u>

top

Abstract no

Documentation A single geospatial point

```
XML Instance Representation
```

Schema Component Representation

top

top

Complex Type: PointAlongLinearElement

Super-types: None
Sub-types: None

Name PointAlongLinearElement

<u>Abstract</u> no

Documentation A point on a linear element where the linear element is either a part of or the whole of a linear object (i.e. a

road), consistent with ISO 19148 definitions.

XML Instance Representation

Schema Component Representation

Complex Type: PointByCoordinates

Super-types: None
Sub-types: None

Name PointByCoordinates

<u>Abstract</u> no

Documentation A single point defined only by a coordinate set with an optional bearing direction.

XML Instance Representation

```
<xs:complexType name="PointByCoordinates">
    <xs:sequence>
```

<u>top</u>

Complex Type: PointCoordinates

Super-types: None
Sub-types: None

Name PointCoordinates

<u>Abstract</u> no

Documentation A pair of coordinates defining the geodetic position of a single point using the European Terrestrial Reference

System 1989 (ETRS89).

XML Instance Representation

Schema Component Representation

<u>top</u>

Complex Type: PrecipitationIntensityValue

Super-types: DataValue < PrecipitationIntensityValue (by extension)

Sub-types: None

Name PrecipitationIntensityValue

<u>Abstract</u> no

Documentation A measured or calculated value of the accumulation rate of precipitation.

XML Instance Representation

Schema Component Representation

<u>top</u>

Complex Type: Source

Super-types:	None
Sub-types:	None

Name Source
Abstract no

Documentation

Details of the source from which the information was obtained.

XML Instance Representation

Schema Component Representation

Complex Type: SpeedPercentile

 Super-types:
 None

 Sub-types:
 None

Name SpeedPercentile

<u>Abstract</u> no

Documentation Details of percentage (from an observation set) of vehicles whose speeds fall below a stated value.

XML Instance Representation

Schema Component Representation

Complex Type: SpeedValue

Name SpeedValue Abstract no

Documentation A measured or calculated value of speed.

XML Instance Representation

Schema Component Representation

<u>top</u>

top

top

Complex Type: SupplementaryPositionalDescription

Super-types: None
Sub-types: None

Name SupplementaryPositionalDescription

<u>Abstract</u> no

Documentation A collection of supplementary positional information which improves the precision of the location.

XML Instance Representation

Schema Component Representation

Complex Type: TemperatureValue

Super-types: DataValue < TemperatureValue (by extension)
Sub-types: None

Name Temperature Value

<u>Abstract</u> no

Documentation A measured or calculated value of temperature.

XML Instance Representation

Schema Component Representation

top

Complex Type: TpegAreaDescriptor

```
        Super-types:
        TpegDescriptor < TpegAreaDescriptor (by extension)</th>

        Sub-types:
        None
```

Name TpegAreaDescriptor

<u>Abstract</u> no

Documentation A descriptor for describing an area location.

XML Instance Representation

Schema Component Representation

Complex Type: TpegDescriptor

Super-types: None
Sub-types:

• TpegAreaDescriptor (by extension)

Name TpegDescriptor
Abstract yes

Documentation A collection of information providing descriptive references to locations using the TPEG-Loc location

referencing approach.

XML Instance Representation

```
<...>
<<u>D2LogicalModel</u>:descriptor> <u>D2LogicalModel</u>:MultilingualString </<u>D2LogicalModel</u>:descriptor> [1] ?
<<u>D2LogicalModel</u>:tpegDescriptorExtension> <u>D2LogicalModel</u>:_ExtensionType </<u>D2LogicalModel</u>:tpegDescriptorExtension>
[0..1]
</...>
```

Schema Component Representation

Complex Type: TrafficConcentration

Super-types: BasicData < TrafficData (by extension) < TrafficConcentration (by extension)

Sub-types: None

Name TrafficConcentration

<u>Abstract</u> no

Documentation Averaged measurements or calculations of traffic concentration.

XML Instance Representation

```
<pr
```

Schema Component Representation

<u>top</u>

<u>top</u>

```
<xs:sequence>
          <xs:element name="concentration" type="D2LogicalModel:ConcentrationOfVehiclesValue" minOccurs="0"/>
          <xs:element name="occupancy" type="D2LogicalModel:PercentageValue" minOccurs="0"</pre>
          <xs:element name="trafficConcentrationExtension"</pre>
                                                             type="D2LogicalModel:_ExtensionType" minOccurs="0"/>
       </xs:sequence>
  </xs:complexContent>
</xs:complexTvpe>
```

top

top

Complex Type: TrafficData

```
BasicData < TrafficData (by extension)
Super-types:
Sub-types:
                                          • <u>TrafficConcentration</u> (by extension)
                                             <u>TrafficFlow</u> (by extension)
                                             TrafficHeadway (by extension)
                                          • <u>TrafficSpeed</u> (by extension)
```

Name TrafficData Abstract

Documentation Measured or derived values relating to traffic or individual vehicle movements on a specific section or at a

specific point on the road network.

XML Instance Representation

```
\verb|measurementOrCalculatedTimePrecision="| \underline{D2LogicalModel: \underline{TimePrecisionEnum}} | [0..1] | ?">
  <D2LogicalModel:measurementOrCalculationPeriod> D2LogicalModel:Seconds
   </p
  <<u>D2LogicalModel</u>:measurementOrCalculationTime> <u>D2LogicalModel:DateTime</u>
  /D2LogicalModel:measurementOrCalculationTime> [0..1] ?
  $$ \frac{\text{D2LogicalModel}:pertinentLocation> \underline{D2LogicalModel}:\underline{GroupOfLocations} </\underline{D2LogicalModel}:pertinentLocation> [0..1] ? \\ \frac{\text{D2LogicalModel}:basicDataExtension> \underline{D2LogicalModel}:\underline{ExtensionType} </\underline{D2LogicalModel}:basicDataExtension> [0..1] ? \\ \end{aligned}
   <<u>D2LogicalModel:trafficDataExtension> D2LogicalModel:ExtensionType D2LogicalModel:trafficDataExtension> [0..1]</u>
```

Schema Component Representation

```
<xs:complexType name="TrafficData" abstract="true">
  <xs:complexContent>
    <xs:extension base="D2LogicalModel:BasicData">
       <xs:sequence>
          <xs:element name="trafficDataExtension" type="D2LogicalModel:_ExtensionType" minOccurs="0"/>
       </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Complex Type: TrafficFlow

Super-types. BasicData < TrafficData (by extension) < TrafficFlow (by extension) Sub-types: None

Name TrafficFlow **Abstract**

Averaged measurements or calculations of traffic flow rates. **Documentation**

```
XML Instance Representation
    measurementOrCalculatedTimePrecision="D2LogicalModel:TimePrecisionEnum [0..1] ?">
           <\!\underline{\texttt{D2LogicalModel}}\!:\!\texttt{measurementOrCalculationPeriod}\!>\!\underline{\texttt{D2LogicalModel}}\!:\!\underline{\texttt{Seconds}}
           </\underline{\texttt{D2LogicalModel}}{:} \texttt{measurementOrCalculationPeriod}{>} \ [\texttt{0..1}] \quad \ref{eq:calculationPeriod}
            <D2LogicalModel:measurementOrCalculationTime> D2LogicalModel:DateTime
             /D2LogicalModel:measurementOrCalculationTime> [0..1]
                                                                                                                                                                                                                     ?
            < \underline{\text{D2LogicalModel}} \text{ pertinentLocation} > \underline{\text{D2LogicalModel}} : \underline{\text{GroupOfLocations}} < / \underline{\text{D2LogicalModel}} : \text{pertinentLocation} > [0..1]
            <<u>D2LogicalModel</u>:basicDataExtension> <u>D2LogicalModel</u>: <u>ExtensionType</u> </<u>D2LogicalModel</u>: basicDataExtension> [0..1]
<<u>D2LogicalModel</u>:trafficDataExtension> <u>D2LogicalModel</u>: <u>ExtensionType</u> </<u>D2LogicalModel</u>:trafficDataExtension> [0..1]
            <<u>D2LogicalModel</u>:axleFlow> <u>D2LogicalModel</u>:AxleFlowValue </<u>D2LogicalModel</u>:axleFlow> [0..1] ?
             <<u>D2LogicalModel</u>:pcuFlow> <u>D2LogicalModel</u>:<u>PcuFlowValue</u> </<u>D2LogicalModel</u>:pcuFlow> [0..1]
            < \underline{D2LogicalModel}: percentageLongVehicles > \underline{D2LogicalModel}: \underline{PercentageValue} < / \underline{D2LogicalModel}: percentageLongVehicles > \underline{D2LogicalModel}: \underline{PercentageValue} < / \underline{D2LogicalModel}: \underline{D2Logic
            [0..1] ?
            <D2LogicalModel:vehicleFlow> D2LogicalModel:VehicleFlowValue 
             <<u>D2LogicalModel</u>:trafficFlowExtension> <u>D2LogicalModel</u>:_ExtensionType </<u>D2LogicalModel</u>:trafficFlowExtension> [0..1]
```

```
<xs:complexType name="TrafficFlow">
   <xs:complexContent>
      <xs:extension base="D2LogicalModel:TrafficData">
         <xs:sequence>
             <xs:element name="axleFlow" type="D2LogicalModel:AxleFlowValue" minOccurs="0"/>
             <xs:element name="pcuFlow" type="D2LogicalModel:PcuFlowValue" minOccurs="0"/>
<xs:element name="percentageLongVehicles" type="D2LogicalModel:PercentageValue" minOccurs="0"/>
<xs:element name="vehicleFlow" type="D2LogicalModel:VehicleFlowValue" minOccurs="0"/>
             <xs:element name="trafficFlowExtension" type="D2LogicalModel:_ExtensionType" minOccurs="0"/>
          </xs:sequence>
      </xs:extension>
   </xs:complexContent>
</xs:complexType>
```

Complex Type: TrafficHeadway

Super-types BasicData < TrafficData (by extension) < TrafficHeadway (by extension)

Sub-types None

Name TrafficHeadway

Abstract

Averaged measurements or calculations of traffic headway, i.e. the distance or time interval between Documentation

vehicles. This measure is measured from the head of one vehicle to the head of the following vehicle.

XML Instance Representation

```
\verb|measurementOrCalculatedTimePrecision="| \underline{D2LogicalModel:TimePrecisionEnum}| [0..1] | ?">
  < \underline{\texttt{D2LogicalModel}} : \texttt{measurementOrCalculationPeriod} > \underline{\texttt{D2LogicalModel}} : \underline{\texttt{Seconds}}
  </D2LogicalModel:measurementOrCalculationPeriod> [0..1] ?
  <<u>D2LogicalModel</u>:measurementOrCalculationTime> <u>D2LogicalModel</u>:<u>DateTime</u>
   /D2LogicalModel:measurementOrCalculationTime> [0..1]
                                                                                    ?
   < \underline{D2LogicalModel}: pertinent Location > \underline{D2LogicalModel}: \underline{GroupOfLocations} < / \underline{D2LogicalModel}: pertinent Location > [0..1]
   $$ \frac{D2 Logical Model: basic Data Extension > D2 Logical Model: \underline{Extension Type} < / \underline{D2 Logical Model: basic Data Extension > D2 Logical Model: \underline{Extension Type} < / \underline{D2 Logical Model: traffic Data Extension > D2 Logical Model: \underline{Extension Type} < / \underline{D2 Logical Model: traffic Data Extension > [0..1] } 
   <u>D2LogicalModel</u>:averageDistanceHeadway> <u>D2LogicalModel</u>:FloatingPointMetreDistanceValue
   < \underline{D2LogicalModel}: averageTimeHeadway > \underline{D2LogicalModel}: \underline{DurationValue} < / \underline{D2LogicalModel}: averageTimeHeadway > [0..1] ? 
  <<u>D2LogicalModel</u>:trafficHeadwayExtension> <u>D2LogicalModel</u>: <u>ExtensionType</u> </<u>D2LogicalModel</u>:trafficHeadwayExtension>
```

Schema Component Representation

```
<xs:complexType name="TrafficHeadway">
  <xs:complexContent>
     <xs:extension base="D2LogicalModel:TrafficData">
       <xs:sequence>
          <xs:element name="averageDistanceHeadway" type="D2LogicalModel:FloatingPointMetreDistanceValue"</pre>
         minOccurs="0"/>
         <xs:element name="averageTimeHeadway" type="D2LogicalModel:DurationValue" minOccurs="0"/>
          <xs:element name="trafficHeadwayExtension" type="D2LogicalModel:_ExtensionType" minOccurs="0"/>
       </xs:sequence>
     </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Complex Type: TrafficSpeed

Super-types. <u>BasicData</u> < <u>TrafficData</u> (by extension) < **TrafficSpeed** (by extension)

Sub-types. None

Name TrafficSpeed **Abstract** no

Documentation Averaged measurements or calculations of traffic speed

XML Instance Representation

```
measurementOrCalculatedTimePrecision="D2LogicalModel:TimePrecisionEnum [0..1] ?">
  <D2LogicalModel:measurementOrCalculationPeriod> D2LogicalModel:Seconds

CalculationPeriod
[0..1] ?
  <<u>D2LogicalModel:measurementOrCalculationTime> D2LogicalModel:DateTime</u>
  /D2LogicalModel:measurementOrCalculationTime>
                                                       [0..1]
  <D2LogicalModel:pertinentLocation> D2LogicalModel:GroupOfLocations </D2LogicalModel:pertinentLocation> [0..1] ?
  <<u>D2LogicalModel</u>:basicDataExtension> <u>D2LogicalModel</u>: <u>ExtensionType</u> </<u>D2LogicalModel</u>: basicDataExtension> [0..1]
<<u>D2LogicalModel</u>:trafficDataExtension> <u>D2LogicalModel</u>: <u>ExtensionType</u> </<u>D2LogicalModel</u>:trafficDataExtension> [0..1]
  <<u>D2LogicalModel</u>:averageVehicleSpeed> <u>D2LogicalModel</u>:SpeedValue </<u>D2LogicalModel</u>:averageVehicleSpeed> [0..1] ?
  	ext{<} \underline{D2LogicalModel}: trafficSpeedExtension> \underline{D2LogicalModel}: \underline{ExtensionType} < 	ext{<} \underline{D2LogicalModel}: trafficSpeedExtension>
  [0..1]
```

Schema Component Representation

```
<xs:complexType name="TrafficSpeed">
  <xs:complexContent>
     <xs:extension base="D2LogicalModel:TrafficData">
       <xs:sequence>
         <xs:element name="averageVehicleSpeed" type="D2LogicalModel:SpeedValue" minOccurs="0"</pre>
          <xs:element name="speedPercentile" type="D2LogicalModel:SpeedPercentile" minOccurs="0"/>
         <xs:element name="trafficSpeedExtension" type="D2LogicalModel:_ExtensionType" minOccurs="0"/>
       </xs:sequence>
     </xs:extension>
  </xs:complexContent>
/xs:complexType>
```

top

top

Complex Type: TrafficStatusValue

Sub-types: None

Name TrafficStatusValue

<u>Abstract</u> no

Documentation A measured or calculated value of the status of traffic conditions on a section of road in a specified direction.

XML Instance Representation

Schema Component Representation

Complex Type: VehicleCountValue

Super-types: <u>DataValue</u> < **VehicleCountValue** (by extension)

Sub-types: None

Name VehicleCountValue

<u>Abstract</u> no

Documentation A measured or calculated value of absolute count of vehicles within a specified period of time expressed as

non negative integer

XML Instance Representation

Schema Component Representation

<u>top</u>

top

Complex Type: VehicleFlowValue

 Super-types:
 DataValue < VehicleFlowValue (by extension)</th>

 Sub-types:
 None

Name VehicleFlowValue

<u>Abstract</u> n

Documentation A measured or calculated value of the flow rate of vehicles

```
XML Instance Representation
```

Schema Component Representation

top

Complex Type: _ExtensionType

```
Super-types: None
Sub-types: None
```

Name _ExtensionType

<u>Abstract</u> no

XML Instance Representation

```
<...>
Allow any elements from any namespace (lax validation). [0..*]
</...>
```

Schema Component Representation

top

Complex Type: _PointExtensionType

```
Super-types: None
Sub-types: None
```

Name __PointExtensionType

<u>Abstract</u> no

XML Instance Representation

```
<...>
<<u>D2LogicalModel</u>:openlrExtendedPoint> <u>D2LogicalModel</u>:<u>OpenlrExtendedPoint</u> </<u>D2LogicalModel</u>:openlrExtendedPoint>
[0..1]
Allow any elements from a namespace other than this schema's namespace (lax validation). [0..*]
</...>
```

Schema Component Representation

<u>top</u>

Simple Type: AlertCDirectionEnum

```
Super-types: xs:string < AlertCDirectionEnum (by restriction)
Sub-types: None
```

Name AlertCDirectionEnum

Content

• value comes from list: {'both'|'negative'|'positive'|'unknown'}

Documentation

The direction of traffic flow concerned by a situation or traffic data. In ALERT-C the positive (resp. negative) direction corresponds to the positive offset direction within the RDS location table.

Schema Component Representation

<u>top</u>

Simple Type: AlertCLocationCode

 Super-types:
 xs:nonNegativeInteger < NonNegativeInteger (by restriction) < AlertCLocationCode (by restriction)</th>

 Sub-types:
 None

Name AlertCLocationCode

Content

Base XSD Type: nonNegativeInteger

Documentation A positive integer number (between 1 and 63,487) which uniquely identifies a pre-defined Alert C location

defined within an Alert-C table.

Schema Component Representation

<u>top</u>

Simple Type: AngleInDegrees

 Super-types:
 xs:nonNegativeInteger < NonNegativeInteger (by restriction) < AngleInDegrees (by restriction)</td>

 Sub-types:
 None

Name AngleInDegrees

Content

Base XSD Type: nonNegativeInteger

Documentation An integer number representing an angle in whole degrees between 0 and 359.

Schema Component Representation

```
<xs:simpleType name="AngleInDegrees">
    <xs:restriction base="D2LogicalModel:NonNegativeInteger"/>
</xs:simpleType>
```

<u>top</u>

Simple Type: AreaOfInterestEnum

```
Super-types: xs:string < AreaOfInterestEnum (by restriction)
Sub-types: None
```

Name AreaOfInterestEnum

Content

Base XSD Type: string

 $\bullet \quad \textit{value} \ comes \ from \ list: \ \{'continentWide' | 'national' | 'neighbouringCountries' | 'notSpecified' | 'regional' \}$

Documentation Types of areas of interest.

Schema Component Representation

<u>top</u>

Simple Type: AxlesPerHour

Super-types:	xs:nonNegativeInteger < NonNegativeInteger (by restriction) < AxlesPerHour (by restriction)
Sub-types:	None

Name AxlesPerHour

Content

Base XSD Type: nonNegativeInteger

Documentation

Vehicle axles per hour.

Schema Component Representation

<u>top</u>

Simple Type: Boolean

```
    Super-types:
    xs:boolean < Boolean (by restriction)</th>

    Sub-types:
    None
```

Name Boolean

Content

· Base XSD Type: boolean

DocumentationBoolean has the value space required to support the mathematical concept of binary-valued logic: {true,

false).

Schema Component Representation

top

Simple Type: CarriagewayEnum

 Super-types:
 xs:string < CarriagewayEnum (by restriction)</th>

 Sub-types:
 None

Name CarriagewayEnum

Content

- · Base XSD Type: string
- value comes from list:

{connectingCarriageway'|entrySlipRoad'|exitSlipRoad'|flyover'|leftHandFeederRoad'|leftHandParallelCarriageway'|mainCarriageway'|oppositeCar

Documentation List of descriptors identifying specific carriageway details.

Schema Component Representation

<u>top</u>

Simple Type: ComputationMethodEnum

```
    Super-types:
    xs:string < ComputationMethodEnum (by restriction)</td>

    Sub-types:
    None
```

Name

ComputationMethodEnum

Content

- Base XSD Type: string
- value comes from list:

{arithmeticAverageOfSamplesBasedOnAFixedNumberOfSamples'|'arithmeticAverageOfSamplesInATimePeriod'|'harmonicAverageOfSamplesInATin

Documentation Types of computational methods used in deriving data values for data sets.

Simple Type: ConcentrationKilogramsPerCubicMetre

Super-types: xs:float < Float (by restriction) < ConcentrationKilogramsPerCubicMetre (by restriction)

Sub-types: None

Name ConcentrationKilogramsPerCubicMetre

Content

· Base XSD Type: float

DocumentationConcentration defined in kilograms per cubic metre (equivalent to grams per litre under standard conditions).

Schema Component Representation

<u>top</u>

Simple Type: ConcentrationMicrogramsPerCubicMetre

Super-types: xs:float < Float (by restriction) < ConcentrationMicrogramsPerCubicMetre (by restriction)

Sub-types: None

Name ConcentrationMicrogramsPerCubicMetre

Content

· Base XSD Type: float

Documentation

A measure of concentration defined in $\mu g/m3$ (micrograms/cubic metre).

Schema Component Representation

top

Simple Type: ConcentrationVehiclesPerKilometre

Super-types: xs:nonNegativeInteger < NonNegativeInteger (by restriction) < ConcentrationVehiclesPerKilometre (by restriction)

Sub-types: None

Name ConcentrationVehiclesPerKilometre

Content

Base XSD Type: nonNegativeInteger

Documentation A measure of traffic density defined in number of vehicles per kilometre of road.

Schema Component Representation

<u>top</u>

Simple Type: ConfidentialityValueEnum

 Super-types:
 xs:string < ConfidentialityValueEnum (by restriction)</th>

 Sub-types:
 None

Name

ConfidentialityValueEnum

Content

- Base XSD Type: string
- value comes from list:

 $\label{thm:continuous} \begin{tabular}{ll} \label{thm:continuous} \begin{tabular}{ll} \begin{tabular}{ll$

Documentation Values of confidentiality.

Schema Component Representation

<u>top</u>

```
    Sub-types:
    xs:string < CountryEnum (by restriction)</th>

    Sub-types:
    None
```

Name

CountryEnum

Content

- Base XSD Type: string
- value comes from list:

Documentation List of countries

Schema Component Representation

```
<xs:simpleType name="CountryEnum"</pre>
   <xs:restriction base="xs:string">
     <xs:enumeration value="at'</pre>
     <xs:enumeration value="be'</pre>
      <xs:enumeration value="bg</pre>
     <xs:enumeration value="ch"</pre>
      <xs:enumeration value="cs"</pre>
      <xs:enumeration value="cy'</pre>
     <xs:enumeration value="cz"</pre>
      <xs:enumeration value="de'</pre>
      <xs:enumeration value="dk"</pre>
     <xs:enumeration value="ee'</pre>
      <xs:enumeration value="es"</pre>
      <xs:enumeration value="fi"</pre>
     <xs:enumeration value="fo"</pre>
     <xs:enumeration value="fr'</pre>
      <xs:enumeration value="gb"</pre>
     <xs:enumeration value="gg'</pre>
      <xs:enumeration value="gi"</pre>
      <xs:enumeration value="gr"</pre>
     <xs:enumeration value="hr"</pre>
      <xs:enumeration value="hu"</pre>
      <xs:enumeration value="ie"</pre>
     <xs:enumeration value="im"</pre>
      <xs:enumeration value="is"</pre>
      <xs:enumeration value="it"</pre>
     <xs:enumeration value="je"</pre>
      <xs:enumeration value="li"</pre>
      <xs:enumeration value="lt"</pre>
     <xs:enumeration value="lu"</pre>
      <xs:enumeration value="lv"</pre>
      <xs:enumeration value="ma"</pre>
     <xs:enumeration value="mc"</pre>
     <xs:enumeration value="mk'</pre>
      <xs:enumeration value="mt"</pre>
     <xs:enumeration value="nl"</pre>
     <xs:enumeration value="no'</pre>
      <xs:enumeration value="pl"</pre>
     <xs:enumeration value="pt"</pre>
     <xs:enumeration value="ro"</pre>
      <xs:enumeration value="se"</pre>
     <xs:enumeration value="si"</pre>
     <xs:enumeration value="sk"</pre>
      <xs:enumeration value="sm"</pre>
      <xs:enumeration value="tr"</pre>
     <xs:enumeration value="va"</pre>
      <xs:enumeration value="other"/>
  </xs:restriction>
</xs:simpleType>
```

Simple Type: DateTime

Super-types: xs:dateTime < DateTime (by restriction)
Sub-types: None

Name

DateTime

Content

• Base XSD Type: dateTime

Documentation

A combination of integer-valued year, month, day, hour, minute properties, a decimal-valued second property and a time zone property from which it is possible to determine the local time, the equivalent UTC time and the time zone offset from UTC.

Schema Component Representation

```
<xs:simpleType name="DateTime">
    <xs:restriction base="xs:dateTime"/>
    </xs:simpleType>
```

<u>top</u>

top

Simple Type: DirectionCompassEnum

```
    Super-types:
    xs:string < DirectionCompassEnum (by restriction)</td>

    Sub-types:
    None
```

Name

DirectionCompassEnum

Content

Base XSD Type: string

value comes from list:

{'east'|eastNorthEast'|reatSouthEast'|north|reatt'|northNorthEast'|northNorthWest'|southreatt'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|southEast'|sout

Documentation Cardinal direction points of the compass.

Schema Component Representation

```
<xs:enumeration value="eastNorthEast"/>
    <xs:enumeration value="eastSouthEast"/>
     <xs:enumeration value="north"</pre>
     <xs:enumeration value="northEast"/>
    <xs:enumeration value="northNorthEast"</pre>
     <xs:enumeration value="northNorthWest"/>
     <xs:enumeration value="northWest"/>
    <xs:enumeration value="south"/</pre>
     <xs:enumeration value="southEast"</pre>
     <xs:enumeration value="southSouthEast"/>
    <xs:enumeration value="southSouthWest"/>
     <xs:enumeration value="southWest"/</pre>
     <xs:enumeration value="west"/</pre>
    <xs:enumeration value="westNorthWest"/>
     <xs:enumeration value="westSouthWest"/>
  </xs:restriction>
/xs:simpleType>
```

<u>top</u>

Simple Type: ElaboratedDataFaultEnum

```
    Super-types:
    xs:string < ElaboratedDataFaultEnum (by restriction)</th>

    Sub-types:
    None
```

Name

ElaboratedDataFaultEnum

Content

- Base XSD Type: string
- value comes from list:

{'intermittentDataValues'|'noDataValuesAvailable'|'spuriousUnreliableDataValues'|'unspecifiedOrUnknownFault'|'other'}

Documentation Types of elaborated data faults.

Schema Component Representation

<u>top</u>

Simple Type: FaultSeverityEnum

```
Super-types: xs:string < FaultSeverityEnum (by restriction)
Sub-types: None
```

Name

FaultSeverityEnum

Content

· Base XSD Type: string

• value comes from list: {'low'|'medium'|'high'|'unknown'}

Documentation

Classification of the severity of faults.

Schema Component Representation

<u>top</u>

Simple Type: Float

```
Sub-types:

- ConcentrationKilogramsPerCubicMetre (by restriction)
- ConcentrationMicrogramsPerCubicMetre (by restriction)
- ConcentrationMicrogramsPerCubicMetre (by restriction)
- IntensityKilogramsPerSquareMetre (by restriction)
- IntensityMillimetresPerHour (by restriction)
- KilometresPerHour (by restriction)
- KilometresPerHour (by restriction)
- MetresAsFloat (by restriction)
- Percentage (by restriction)
- Seconds (by restriction)
```

• <u>TemperatureCelsius</u> (by restriction)

Name

Float

Content

· Base XSD Type: float

Documentation

A floating point number whose value space consists of the values m × 2^e, where m is an integer whose absolute value is less than 2^24, and e is an integer between -149 and 104, inclusive.

Schema Component Representation

```
<xs:simpleType name="Float"</pre>
  <xs:restriction base="xs:float"/>
</xs:simpleType>
```

<u>top</u>

Simple Type: InformationStatusEnum

Super-types. xs:string < InformationStatusEnum (by restriction) Sub-types. None

InformationStatusEnum Name

Content

· Base XSD Type: string

• value comes from list: {'real'|'securityExercise'|'technicalExercise'|'test'}

Documentation Status of the related information (i.e. real, test or exercise).

Schema Component Representation

```
<xs:simpleType name="InformationStatusEnum">
    <xs:restriction base="xs:string">
    <xs:enumeration value="real"/>
       <xs:enumeration value="securityExercise"/>
       <xs:enumeration value="technicalExercise"/>
       <xs:enumeration value="test"/</pre>
   </xs:restriction>
 /xs:simpleType>
```

<u>top</u>

Simple Type: Integer

Super-types: xs:integer < Integer (by restriction) Sub-types. None

Integer

Content

Base XSD Type: integer

An integer number whose value space is the set $\{-2147483648, -2147483647, -2147483646, ..., -2, -1, 0, 1, 2, ..., 2147483645, 2147483646, 2147483647\}$. Documentation

Schema Component Representation

```
<xs:simpleType name="Integer">
  <xs:restriction base="xs:integer"/>
</xs:simpleType>
```

<u>top</u>

Simple Type: IntensityKilogramsPerSquareMetre

Super-types: xs:float < Float (by restriction) < IntensityKilogramsPerSquareMetre (by restriction) Sub-types. None

Name IntensityKilogramsPerSquareMetre Content · Base XSD Type: float

Documentation A measure of the quantity of application of a substance to an area defined in kilograms per square metre.

Schema Component Representation

```
<xs:simpleType name="IntensityKilogramsPerSquareMetre">
  <xs:restriction base="D2LogicalModel:Float"</pre>
</xs:simpleType>
```

<u>top</u>

Simple Type: IntensityMillimetresPerHour

Super-types:	xs:float < Float (by restriction) < IntensityMillimetresPerHour (by restriction)
Sub-types:	None

IntensityMillimetresPerHour

Content

Base XSD Type: float

Schema Component Representation

<u>top</u>

Simple Type: KilometresPerHour

Super-types: xs:float < Float (by restriction) < KilometresPerHour (by restriction)
Sub-types: None

Name KilometresPerHour

Content

Base XSD Type: float

Documentation A measure of speed defined in kilometres per hour.

Schema Component Representation

<u>top</u>

Simple Type: LaneEnum

Super-types: xs:string < LaneEnum (by restriction)
Sub-types: None

Name LaneEnum

Content

- Base XSD Type: string
- value comes from list:

('allLanesCompleteCarriageway'|'busLane'|'busStop'|'carPoolLane'|'centralReservation'|'crawlerLane'|'emergencyLane'|'escapeLane'|'expressLane'|'h

Documentation List of descriptors identifying specific lanes.

Schema Component Representation

```
<xs:simpleType name="LaneEnum</pre>
  <xs:restriction base="xs:string">
     <xs:enumeration value="allLanesCompleteCarriageway"/>
     <xs:enumeration value="busLane"</pre>
     <xs:enumeration value="busStop"</pre>
     <xs:enumeration value="carPoolLane"/>
     <xs:enumeration value="centralReservation"/>
     <xs:enumeration value="crawlerLane"</pre>
     <xs:enumeration value="emergencyLane"</pre>
     <xs:enumeration value="escapeLane"</pre>
     <xs:enumeration value="expressLane"</pre>
     <xs:enumeration value="hardShoulder"</pre>
     <xs:enumeration value="heavyVehicleLane"/>
     <xs:enumeration value="lane1"</pre>
     <xs:enumeration value="lane2"</pre>
     <xs:enumeration value="lane3"</pre>
     <xs:enumeration value="lane4"</pre>
     <xs:enumeration value="lane5"</pre>
     <xs:enumeration value="lane6"</pre>
     <xs:enumeration value="lane7"</pre>
     <xs:enumeration value="lane8"</pre>
     <xs:enumeration value="lane9"</pre>
     <xs:enumeration value="layBy"</pre>
     <xs:enumeration value="leftHandTurningLane"/>
     <xs:enumeration value="leftLane"</pre>
     <xs:enumeration value="localTrafficLane"/>
     <vs:enumeration value="middleLane"</pre>
     <xs:enumeration value="opposingLanes"</pre>
     <xs:enumeration value="overtakingLane"/>
     <xs:enumeration value="rightHandTurningLane"/>
     <xs:enumeration value="rightLane"</pre>
     <xs:enumeration value="rushHourLane"/>
     <xs:enumeration value="setDownArea"</pre>
     <xs:enumeration value="slowVehicleLane"/>
     <xs:enumeration value="throughTrafficLane"/>
     <xs:enumeration value="tidalFlowLane"/</pre>
     <xs:enumeration value="turningLane"/>
     <xs:enumeration value="verge"</pre>
  </xs:restriction>
/xs:simpleTvpe>
```

<u>top</u>

Simple Type: Language

```
    Super-types:
    xs:language < Language (by restriction)</td>

    Sub-types:
    None
```

Name Language

Content

• Base XSD Type: language

Documentation

A language datatype, identifies a specified language by an ISO 639-1 2-alpha / ISO 639-2 3-alpha code.

Schema Component Representation

```
<xs:simpleType name="Language">
    <xs:restriction base="xs:language"/>
</xs:simpleType>
```

<u>top</u>

Simple Type: LinearReferencingDirectionEnum

```
    Super-types:
    xs:string < LinearReferencingDirectionEnum (by restriction)</td>

    Sub-types:
    None
```

Name

LinearReferencingDirectionEnum

Content

Base XSD Type: string

• value comes from list: {'both'|'opposite'|'aligned'|'unknown'}

Documentation

Directions of traffic flow relative to the direction in which the linear element is defined.

Schema Component Representation

<u>top</u>

Simple Type: LocationDescriptorEnum

 Super-types:
 xs:string < LocationDescriptorEnum (by restriction)</th>

 Sub-types:
 None

Name

LocationDescriptorEnum

Content

- Base XSD Type: string
- value comes from list:

{aroundABendInRoad'|atMotorwayInterchange'|atRestArea'|atServiceArea'|atToIIPlaza'|atTunnelEntryOrExit'|inbound'|inGallery/|inTheCentre'|inT

Documentation List of descriptors to help to identify a specific location.

Schema Component Representation

```
<xs:simpleType name="LocationDescriptorEnum">
   <xs:restriction base="xs:string">
  <xs:enumeration value="aroundABendInRoad"/>
  <xs:enumeration value="atMotorwayInterchange"/>
      <xs:enumeration value="atRestArea"</pre>
      <xs:enumeration value="atServiceArea"</pre>
      <xs:enumeration value="atTollPlaza</pre>
      <xs:enumeration value="atTunnelEntryOrExit"/>
      <xs:enumeration value="inbound"/>
<xs:enumeration value="inGallery"/>
<xs:enumeration value="inTheCentre"</pre>
      <xs:enumeration value="inTheOppositeDirection"/>
      <xs:enumeration value="inTunnel"</pre>
      <xs:enumeration value="onBorder"</pre>
      <xs:enumeration value="onBridge"</pre>
      <xs:enumeration value="onConnector"/>
      <xs:enumeration value="onElevatedSection"/>
      <xs:enumeration value="onFlyover"</pre>
      <xs:enumeration value="onIceRoad"</pre>
      <xs:enumeration value="onLevelCrossing"/>
      <xs:enumeration value="onLinkRoad"</pre>
      <xs:enumeration value="onPass"</pre>
      <xs:enumeration value="onRoundabout"/>
      <xs:enumeration value="onTheLeft"</pre>
      <xs:enumeration value="onTheRight"/>
<xs:enumeration value="onTheRoadway"/>
      <xs:enumeration value="onUndergroundSection"/>
      <xs:enumeration value="onUnderpass"/>
<xs:enumeration value="outbound"/>
      <xs:enumeration value="overCrestOfHill"/>
      <xs:enumeration value="withinJunction"/>
   </xs:restriction>
 /xs:simpleType>
```

<u>top</u>

Simple Type: MetresAsFloat

```
Super-types: xs:float < Float (by restriction) < MetresAsFloat (by restriction)

Sub-types: None
```

Name MetresAsFloat

Content

· Base XSD Type: float

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

Schema Component Representation

```
<xs:simpleType name="MetresAsFloat">
  <xs:restriction base="D2LogicalModel:Float"/>
</xs:simpleType>
```

top

Simple Type: MetresAsNonNegativeInteger

Super-types: xs:nonNegativeInteger < NonNegativeInteger (by restriction) < MetresAsNonNegativeInteger (by restriction) Sub-types. None

Name MetresAsNonNegativeInteger

Content

· Base XSD Type: nonNegativeInteger

Documentation A measure of distance defined in metres in a non negative integer format.

Schema Component Representation

```
<xs:simpleType name="MetresAsNonNegativeInteger";</pre>
  <xs:restriction base="D2LogicalModel:NonNegativeInteger"/>
</xs:simpleType>
```

<u>top</u>

Simple Type: MultilingualStringValueType

Super-types: xs:string < MultilingualStringValueType (by restriction) Sub-types: • MultilingualStringValue (by extension)

Name MultilingualStringValueType

Content

• Base XSD Type: string

lenath <= 1024

Schema Component Representation

```
<xs:simpleType name="MultilingualStringValueType">
  <xs:restriction base="xs:string"
<xs:maxLength value="1024"/>
  </xs:restriction>
</xs:simpleType>
```

top

Simple Type: NonNegativeInteger

Super-types. xs:nonNegativeInteger < NonNegativeInteger (by restriction)

Sub-types:

- AlertCLocationCode (by restriction)
- AngleInDegrees (by restriction)
- AxlesPerHour (by restriction)
 ConcentrationVehiclesPerKilometre (by restriction)
- MetresAsNonNegativeInteger (by restriction)
- PassengerCarUnitsPerHour (by restriction)
- VehiclesPerHour (by restriction)

NonNegativeInteger Name

Content

Base XSD Type: nonNegativeInteger

Documentation An integer number whose value space is the set {0, 1, 2, ..., 2147483645, 2147483646, 2147483647}.

Schema Component Representation

```
<xs:simpleType name="NonNegativeInteger"</pre>
  <xs:restriction base="xs:nonNegativeInteger"/>
</xs:simpleType>
```

<u>top</u>

Simple Type: OpenIrFormOfWayEnum

xs:string < OpenIrFormOfWayEnum (by restriction) Super-types: Sub-types.

Name OpenIrFormOfWayEnum

Content

· Base XSD Type: string

 value comes from list: {'undefined'|'motorway'|'multipleCarriageway'|'singleCarriageway'|'roundabout'|'slipRoad'|'trafficSquare'|'other'}

Documentation

Enumeration of for of way

Schema Component Representation

<u>top</u>

Simple Type: OpenIrFunctionalRoadClassEnum

```
Super-types: xs:string < OpenIrFunctionalRoadClassEnum (by restriction)
Sub-types: None
```

Name Content OpenIrFunctionalRoadClassEnum

· Base XSD Type: string

• value comes from list: {'FRC0'|'FRC1'|'FRC2'|'FRC3'|'FRC4'|'FRC5'|'FRC6'|'FRC7'}

Documentation

Enemuration of functional road class

Schema Component Representation

<u>top</u>

Simple Type: OpenIrOrientationEnum

```
    Super-types:
    xs:string < OpenIrOrientationEnum (by restriction)</th>

    Sub-types:
    None
```

Name Content OpenIrOrientationEnum

Base XSD Type: string

 $\bullet \quad \textit{value} \ \, \text{comes from list: \{'noOrientationOrUnknown'|'withLineDirection'|'againstLineDirection'|'both'\}}$

Documentation

Enumeration of side of road

Schema Component Representation

<u>top</u>

Simple Type: OpenIrSideOfRoadEnum

```
    Super-types:
    xs:string < OpenIrSideOfRoadEnum (by restriction)</th>

    Sub-types:
    None
```

Name

OpenIrSideOfRoadEnum

Content

Base XSD Type: string

• value comes from list: {'onRoadOrUnknown'|'right'|'left'|'both'}

Documentation Enumeration of side of road

<u>top</u>

Simple Type: PassengerCarUnitsPerHour

 Super-types:
 xs:nonNegativeInteger < NonNegativeInteger (by restriction) < PassengerCarUnitsPerHour (by restriction)</th>

 Sub-types:
 None

Name PassengerCarUnitsPerHour

Content

Base XSD Type: nonNegativeInteger

Documentation Passenger car units per hour.

Schema Component Representation

<u>top</u>

Simple Type: Percentage

```
    Super-types:
    xs:float < Float (by restriction) < Percentage (by restriction)</td>

    Sub-types:
    None
```

Name Percentage

Content

Documentation

Base XSD Type: float
A measure of percentage.

Schema Component Representation

<u>top</u>

Simple Type: Seconds

```
    Super-types:
    xs:float < Float (by restriction) < Seconds (by restriction)</td>

    Sub-types:
    None
```

Name Seconds

Content

Base XSD Type: float

Documentation Seconds.

Schema Component Representation

```
<xs:simpleType name="Seconds">
    <xs:restriction base="D2LogicalModel:Float"/>
</xs:simpleType>
```

<u>top</u>

Simple Type: SourceTypeEnum

```
    Super-types:
    xs:string < SourceTypeEnum (by restriction)</th>

    Sub-types:
    None
```

Name

SourceTypeEnum

Content

- Base XSD Type: string
- value comes from list:
 least a child Club Date

{automobileClubPatrol'|'cameraObservation'|'freightVehicleOperator'|'inductionLoopMonitoringStation'|'infraredMonitoringStation'|'microwaveMonitori

Documentation Type of sources from which situation information may be derived.

<u>top</u>

Simple Type: String

 Super-types:
 xs:string < String (by restriction)</th>

 Sub-types:
 None

Name String

Content

Documentation

Base XSD Type: string

length <= 1024

A character string whose value space is the set of finite-length sequences of characters. Every character has a corresponding Universal Character Set code point (as defined in ISO/IEC 10646), which is an integer.

Schema Component Representation

<u>top</u>

Simple Type: TemperatureCelsius

Super-types: xs:float < Float (by restriction) < TemperatureCelsius (by restriction)

Sub-types: None

Name TemperatureCelsius

Content

• Base XSD Type: float

Documentation A measure of temperature defined in degrees Celsius.

Schema Component Representation

<u>top</u>

Simple Type: TimePrecisionEnum

 Super-types:
 xs:string < TimePrecisionEnum (by restriction)</td>

 Sub-types:
 None

Name TimePrecisionEnum

Content

Base XSD Type: string

 $\bullet \ \ \textit{value} \ comes \ from \ list: \{ 'tenthsOfSecond' | 'second' | 'minute' | 'quarterHour' | 'halfHour' | 'hour' \} \\$

Documentation List of precisions to which times can be given.

Schema Component Representation

<u>top</u>

Simple Type: TpegLoc03AreaDescriptorSubtypeEnum

Sub-types: None

Name

TpeqLoc03AreaDescriptorSubtypeEnum

Content

- Base XSD Type: string
- value comes from list:

 $\label{thm:control} \mbox{\colored} \mbox{\c$

Documentation Descriptors for describing area locations.

Schema Component Representation

top

Simple Type: TrafficStatusEnum

```
    Super-types:
    xs:string < TrafficStatusEnum (by restriction)</th>

    Sub-types:
    None
```

Name

TrafficStatusEnum

Content

- · Base XSD Type: string
- value comes from list: {'impossible'|'congested'|'heavy'|'freeFlow'|'unknown'}

Documentation

List of terms used to describe traffic conditions.

Schema Component Representation

<u>top</u>

Simple Type: UrgencyEnum

```
    Super-types:
    xs:string < UrgencyEnum (by restriction)</th>

    Sub-types:
    None
```

Name

UrgencyEnum

Content

- Base XSD Type: string
- value comes from list: {'extremelyUrgent'|'urgent'|'normalUrgency'}

Documentation

Degrees of urgency that a receiving client should associate with the disseminate of the information contained in the publication.

Schema Component Representation

top

Simple Type: VehiclesPerHour

```
        Super-types:
        xs:nonNegativeInteger < NonNegativeInteger (by restriction) < VehiclesPerHour (by restriction)</th>

        Sub-types:
        None
```

Name VehiclesPerHour

Content

• Base XSD Type: nonNegativeInteger

Documentation Vehicles per hour.

Schema Component Representation

```
<xs:simpleType name="VehiclesPerHour">
    <xs:restriction base="D2LogicalModel:NonNegativeInteger"/>
</xs:simpleType>
```

<u>top</u>