

EASYWAY ES5

RELEASE NOTES DATEX II  
VERSION 2.0

June 2011

European Commission

Directorate General for Transport and Energy

Copyright © 2011

# 1. Introduction

These Release notes describe the modifications made to the previous DATEX II version in order to come to the current version. Chapter 2 gives a short motivation for the release of this version of DATEX II. The following chapters describe per DATEX II configuration item the changes made to that item in comparison to the previous version.

## 1.1. Current version

DATEX II version 2.0

This version contains:

Item	Version	Date
DATEX II Modelling Methodology	2.0	30-6-2011
Data model	2.0	
Tool to generate schemas (incl. sources)	2.0	
Exchange PSM	2.0	
WSDL's	2.0	
XML Schema	2.0	
Documentation on DATEX II standard	2.0	
Guidelines	2.0	
User guide		
SW developers guideline		
XML schema tool guide		
Supporting documentation	2.0	
Example messages		
Exchange PIM		
Data definitions (data dictionary)		
Release notes.	V2.0 (this document)	24-6-2011

## 1.2. Previous version

DATEX II version 1.0

Item	Version	Date
DATEX II Modelling Methodology	Did not exist.	1.7.2009
Data model	1.0	
Tool to generate schemas (incl. sources)	1.0	
Exchange PSM incl. WSDL's	1.0	
XML Schema	1.0	
Documentation on DATEX II standard	1.0	
Guidelines		
User guide		
SW developers guideline		
XML schema tool guide		
Supporting documentation	1.0	
Example messages		
Exchange PIM		
Data definitions (data dictionary)		
Release notes.	Did not exist	

## 2. Rationale for this release of DATEX II

DATEX II version 2.0 is developed to:

- Implement the comments from the commenting round in the CEN standardisation process
- To support VMS publications
- Fix a number of bugs

### 3. Modelling methodology

Modifications to the previous version are:

- Many typos, omissions, and editorial errors corrected
- Amendment of naming convention because of the newly introduced “\_” character
- New concepts of «versionedIdentifiable» and «VersionedReference» introduced
- New concept of typed referencing introduced
- Metamodel updated accordingly
- Use of identity-constraints in XML schema mapping included
- modelBaseVersion as XML attribute introduced
- Extension mapping description corrected – rules hold only for level B
- Uniqueness constraint for identifier removed (“index” is now an XML attribute!)
- Clarification of distinction between level B and level C extensions
- Introduction of “schemaTypeInclude” and “facets” tagged value for more sophisticated data modelling

## 4. Data Model

CONTENT PIM v2.0 RELEASE NOTES (v1.0 to v2.0 changes)	
Subject	Release Notes
Non-capitalisation of acronyms in Attribute names	<p>Changes to the rules on the use of acronyms in DATEX II names (non capitalisation) leads to the following Attribute name changes:</p> <p><u>Attribute Names:</u> pCUFlow --&gt; pcuFlow, tpegILCPointDescriptorType --&gt; tpegIlcPointDescriptorType, uNDGNumber --&gt; undgNumber.</p>
Non-capitalisation of acronyms in Enumeration Value names	<p>Changes to the rules on the use of acronyms in DATEX II names (non capitalisation) leads to the following Enumeration Value name changes:</p> <p><u>Enumeration Value Names:</u> IPG --&gt; lpg, IPGShortage --&gt; lpgShortage, restrictedToAuthoritiesTrafficOperatorsAndVMS --&gt; restrictedToAuthoritiesTrafficOperatorsAndVms, tpegILCName1 --&gt; tpegIlcName1, tpegILCName2 --&gt; tpegIlcName2, tpegILCName3 --&gt; tpegIlcName3, transportOfVIP --&gt; transportOfVip, ADR --&gt; adr</p>
Non-capitalisation of acronyms in Class names	<p>Changes to the rules on the use of acronyms in DATEX II names (non capitalisation) leads to the following Class name changes:</p> <p><u>Class Names:</u> TMCInformationProvision --&gt; TmcInformationProvision, TPEGAreaDescriptor --&gt; TpegAreaDescriptor, TPEGDescriptor --&gt; TpegDescriptor, TPEGAreaLocation --&gt; TpegAreaLocation, TPEGFramedPoint --&gt; TpegFramedPoint, TPEGGeometricArea --&gt; TpegGeometricArea, TPEGHeight --&gt; TpegHeight, TPEGILCPointDescriptor --&gt; TpegIlcPointDescriptor, TPEGJunction --&gt; TpegJunction, TPEGJunctionPointDescriptor --&gt; TpegJunctionPointDescriptor, TPEGLinearLocation --&gt; TpegLinearLocation, TPEGNamedOnlyArea --&gt; TpegNamedOnlyArea, TPEGNonJunctionPoint --&gt; TpegNonJunctionPoint, TPEGOtherPointDescriptor --&gt; TpegOtherPointDescriptor, TPEGPoint --&gt; TpegPoint, TPEGPointDescriptor --&gt; TpegPointDescriptor, TPEGPointLocation --&gt; TpegPointLocation, TPEGSimplePoint --&gt; TpegSimplePoint, URLLink --&gt; UrlLink</p>
Non-capitalisation of acronyms in Enumeration names	<p>Changes to the rules on the use of acronyms in DATEX II names (non capitalisation) leads to the following Enumeration name changes:</p> <p><u>Enumeration Names:</u> TPEGLoc01SimplePointLocationSubtypeEnum --&gt; TpegLoc01SimplePointLocationSubtypeEnum, TPEGLoc01FramedPointLocationSubtypeEnum --&gt; TpegLoc01FramedPointLocationSubtypeEnum, TPEGLoc01LinearLocationSubtypeEnum --&gt; TpegLoc01LinearLocationSubtypeEnum, TPEGLoc01AreaLocationSubtypeEnum --&gt; TpegLoc01AreaLocationSubtypeEnum, TPEGLoc02DirectionTypeEnum --&gt; TpegLoc02DirectionTypeEnum, TPEGLoc03JunctionPointDescriptorSubtypeEnum --&gt; TpegLoc03JunctionPointDescriptorSubtypeEnum, TPEGLoc03IlcPointDescriptorSubtypeEnum --&gt; TpegLoc03IlcPointDescriptorSubtypeEnum, TPEGLoc03OtherPointDescriptorSubtypeEnum --&gt; TpegLoc03OtherPointDescriptorSubtypeEnum, TPEGLoc04HeightTypeEnum --&gt; TpegLoc04HeightTypeEnum, TPEGLoc03AreaDescriptorSubtypeEnum --&gt; TpegLoc03AreaDescriptorSubtypeEnum, URLLinkTypeEnum --&gt; UrlLinkTypeEnum, VMSFaultEnum --&gt; VmsFaultEnum, VMSTypeEnum --&gt; VmsTypeEnum</p>
Non-capitalisation of acronyms in Package names	<p>Changes to the rules on the use of acronyms in DATEX II names (non capitalisation) leads to the following Package name changes:</p> <p><u>Package Names:</u> TPEGAreaLocation --&gt; TpegAreaLocation, TPEGDescriptor --&gt; TpegDescriptor, TPEGLinearLocation --&gt; TpegLinearLocation, TPEGPointLocation --&gt; TpegPointLocation</p>

CONTENT PIM v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

Subject	Release Notes
	TPEGEnumerations --> TpegEnumerations
Non-capitalisation of acronyms in Diagram names	Changes to the rules on the use of acronyms in DATEX II names (non capitalisation) leads to the following Diagram name changes:  Diagram names: TPEGDescriptor --> TpegDescriptor, TPEGAreaLocation --> TpegAreaLocation, TPEGPointLocation --> TpegPointLocation, TPEGLinearLocation --> TpegLinearLocation, TPEGEnumerations --> TpegEnumerations
<<datatype>> corrections	A number of attributes have now been correctly assigned to the correct modelled <<datatype>>. Although previously they appeared to be correctly assigned in the diagrams they were not internally in the modelling tool. No datatypes of any attribute has actually changed (this is just an internal modelling correction).
<<datatype>> <b>Language</b>	Added a new <<datatype>> <b>Language</b> . The schemaType tagged value is set to "language".
<<datatype>> <b>Url</b>	Added a new <<datatype>> <b>Url</b> . The schemaType tagged value is set to "anyURI".
<b>AbnormalTraffic</b>	New attribute <b>trafficFlowCharacteristics</b> added and corresponding new <b>TrafficFlowCharacteristicsEnum</b> introduced with values <b>erraticFlow</b> , <b>smoothFlow</b> , <b>stopAndGo</b> and <b>trafficBlocked</b> .
<b>AbnormalTrafficTypeEnum</b>	Values of <b>unspecifiedAbnormalTraffic</b> and <b>heavyTraffic</b> added to <b>AbnormalTrafficTypeEnum</b> . Value of <b>stopAndGo</b> moved from <b>AbnormalTrafficTypeEnum</b> to <b>TrafficFlowCharacteristicsEnum</b>
<b>Accident</b>	Definition of <b>Accident</b> class updated. Definition of <b>accidentType</b> attribute updated. Attribute <b>totalNumberOfVehiclesInvolved</b> added. Attribute <b>totalNumberOfPeopleInvolved</b> added.
<b>AccidentTypeEnum</b>	Value of <b>accidentInvolvingRadioactiveMaterial</b> and <b>accidentInvolvingMassTransitVehicle</b> added to <b>AccidentTypeEnum</b> . Value <b>accidentInvestigationWork</b> moved from <b>AccidentTypeEnum</b> to <b>AuthorityOperationTypeEnum</b> .
<b>Activities</b>	<b>Activities</b> class restructured as specialisations of an <b>Activity</b> . Multiplicity of attributes changed to [1] and definitions updated.
<b>Advice</b>	<b>Advice</b> class and sub-model deleted. Most enumeration lists now reused in the <b>NetworkManagement</b> sub-model.
Association between <b>TrafficValue</b> (now <b>TrafficData</b> ) and <b>VehicleCharacteristics</b>	Association between <b>TrafficValue</b> (now <b>TrafficData</b> ) and <b>VehicleCharacteristics</b> given a role name and the association given a definition which explains the use of <b>VehicleCharacteristics</b> in Elaborated Data Publications and Measured Data Publications. Also a similar note added to the diagram.
<b>AuthorityOperationTypeEnum</b>	Values of <b>bombSquadInAction</b> , <b>customsOperation</b> , <b>juridicalReconstruction</b> , <b>roadOperatorCheckPoint</b> , <b>transportOfVIP</b> , <b>undefinedAuthorityOperation</b> , <b>vehicleWeighing</b> and <b>weighInMotion</b> added to <b>AuthorityOperationTypeEnum</b> .
<b>AxleWeight</b>	In the definition of <b>AxleWeight</b> class 'axle set' changed to 'axle'. Changed definition of <b>maximumPermittedAxleWeight</b> attribute to be specific to the single axle which is the subject of this class. Changed the role name on the association to <b>'specificAxleWeight'</b> . Attribute <b>axleSequencelIdentifier</b> changed to <b>axlePositionIdentifier</b> and definition updated.

CONTENT PIM v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

Subject	Release Notes
<b>BasicDataValue</b> (now <b>BasicData</b> )	<p><b>BasicDataValue</b> class has been renamed <b>BasicData</b> and the sub-model restructured to allow metadata to be associated with each individual data value within the sub-model which is used in the <b>MeasurementDataPublication</b> and the <b>ElaboratedDataPublication</b>. This is also in line with the anticipated methodology for incorporating data quality metadata into the model. Hence each data value can have its own metadata.</p> <p>A new package and container called <b>DataValue</b> has been introduced to allow metadata to be defined which may be inherited by any measured or calculated data value. The class contains attributes for the metadata where each attribute has a tagged value of "attribute" which means they will appear as xml attributes in the generated schema.</p> <p>An optional attribute, <b>measurementOrCalculatedTimePrecision</b> has been added to the <b>BasicData</b> class consistent with ISO TR21707. Since it is clearly metadata it has a tagged value of "attribute" meaning it will appear as an xml attribute in the generated schema.</p> <p>The aggregation <b>affectedLocation</b> changed to <b>pertinentLocation</b> and a definition introduced for the aggregation plus a note explaining its meaning.</p>
Cardinality of attributes and enumeration values	Cardinality of all attributes and enumeration values made explicit.
<b>CarParks</b>	<b>CarParks</b> class – <b>queuingTime</b> attribute has been corrected to be of type "seconds" since it is a duration.
<b>CarriagewayEnum</b>	<b>roundabout</b> has been added to <b>CarriagewayEnum</b> .
<b>Cause</b>	<p>Definitions of the <b>ManagedCause</b> and <b>NonManagedCause</b> classes updated to refer to publication creator.</p> <p>Definitions of <b>causeDescription</b> and <b>managedCause</b> attributes updated to refer to publication creator.</p> <p>Values added to <b>CauseTypeEnum</b> to incorporate those that were previously used in Advice.</p>
<b>CauseTypeEnum</b>	Values of <b>pollutionAlert</b> , <b>radioactiveLeakAlert</b> , <b>rubberNecking</b> and <b>toxicCloudAlert</b> added to <b>CauseTypeEnum</b> .
<b>Comment</b>	The <b>Comment</b> class has an additional attribute <b>commentType</b> added with corresponding enumeration added.
<b>ComparisonOperatorEnum</b>	Values of <b>lessThanOrEqualTo</b> and <b>GreaterThanOrEqualTo</b> added to <b>ComparisonOperatorEnum</b> .
<b>ConcentrationGramsPerCubicCentimetre</b>	Changed to <b>ConcentrationKilogramsPerCubicMetre</b> (i.e. SI units).

CONTENT PIM v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

Subject	Release Notes
Constraints	<p>Information hidden in constraints have either been deleted or incorporated into the definitions since the constraints text is not exposed in the schema.</p> <p>Definition of the following classes updated with constraint details and constraint text deleted:                      - <b>Delays, TrafficViewRecord, AlertCLocationCode.</b></p> <p>Definition of the following attributes updated with constraints and constraint text deleted:                      - <b>networkManagementType, vehicleCountryOfOrigin, axleSpacingSequencelIdentifier, axleSequencelIdentifier, dataClass, alertCDirectionSense.</b></p> <p>Constraint text on the following classes deleted:                      - <b>Destination, MeasuredValue, NonNegativeInteger.</b></p> <p>Constraint text on the following attributes deleted:                      - <b>probabilityOfOccurrence, offsetDistance, windDirectionBearing, carParkOccupancy, occupancy, relativeHumidity, percentageLongVehicles.</b></p>
<b>ConstructionWorkTypeEnum</b>	Value <b>roadWideningWork</b> and <b>roadImprovementOrUpgrading</b> added to <b>ConstructionWorkTypeEnum</b> .
<b>D2LogicalModel</b>	Add tagged value <b>rootElement</b> to <b>D2LogicalModel</b> class. The value = d2LogicalModel. (see meaning of tagged value changes elsewhere)
<b>DangerousGoodsRegulationsEnum</b>	Value <b>ADR</b> changed to <b>adr</b> to conform with DATEX II naming rules.
<b>DataClassEnum</b>	<b>DataClassEnum</b> values corrected to reflect categories of data that can be exchanged with the new model.
<b>DayWeekMonth</b>	All the attributes have been made optional, i.e. a multiplicity of [0] is acceptable. Their definitions updated to explain that the non appearance of any attribute in an instance of the class implies the period includes all of the values in the attribute's range (e.g. "all days of the week").
<b>DelayCodeEnum</b>	<p><b>DelayCodedEnum</b> changed to <b>DelayBandEnum</b>.</p> <p>Remove 'delay' prefix from all values in enumeration.</p> <p>Values <b>upToTenMinutes</b> and <b>betweenTenMinutesAndThirtyMinutes</b> added to <b>DelayBandEnum</b>.</p> <p>Value <b>delayLessThanThirtyMinutes</b> deleted from <b>DelayBandEnum</b>.</p>
<b>Delays</b>	Attribute <b>delayCoded</b> changed to <b>delayBand</b> and definition updated.
<b>DisturbanceActivityTypeEnum</b>	<p>Values of <b>attackOnVehicle, blockadeOrBarrier, radioactiveLeakAlert, riot, toxicCloudAlert</b> and <b>unspecifiedAlert</b> added to the <b>DisturbanceActivityTypeEnum</b>.</p> <p>Values <b>explosion</b> and <b>explosionHazard</b> moved from <b>DisturbanceActivityTypeEnum</b> to <b>ObstructionTypeEnum</b>.</p> <p>Value <b>civilEmergency</b> moved from <b>DisturbanceActivityTypeEnum</b> to <b>AuthorityOperationTypeEnum</b>.</p> <p>Value <b>procession</b> moved from <b>DisturbanceActivityTypeEnum</b> to <b>PublicEventTypeEnum</b>.</p>



CONTENT PIM v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

Subject	Release Notes
Documentation of associations	<p>The associations <b>generalPublicComment</b> and <b>nonGeneralPublicComment</b> for the <b>Comment</b> class now have definitions containing explanatory documentation.</p> <p>The associations <b>to</b> and <b>from</b> between the <b>TPEGFramedPoint</b> and the <b>TPEGPoint</b> class now have definitions containing explanatory documentation.</p> <p>The associations <b>to</b> and <b>from</b> between the <b>TPEGLinearLocation</b> and the <b>TPEGPoint</b> class now have definitions containing explanatory documentation.</p> <p>The associations <b>validPeriod</b> and <b>exceptionPeriod</b> for <b>Period</b> class now have definitions containing explanatory documentation.</p>
<b>ElaboratedData</b>	<< <b>identifiable</b> >> stereotype removed from <b>ElaboratedData</b> class and definition updated accordingly.
Empty packages	Empty/redundant packages have been removed from the model.
<b>EnvironmentalObstructionTypeEnum</b>	<p>Values <b>forestFire</b> and <b>smokeOrFumes</b> added to <b>EnvironmentalObstructionTypeEnum</b>.</p> <p>Values <b>fallingIce</b> and <b>fallingLightIceOrSnow</b> moved from <b>ObstructionTypeEnum</b> to <b>EnvironmentalObstructionTypeEnum</b>.</p>
<b>EquipmentDamageTypeEnum</b>	<b>EquipmentDamageTypeEnum</b> renamed <b>InfrastructureDamageTypeEnum</b> and changes to values (see <b>PoorRoadInfrastructure</b> remodelling below).
External location referencing	<b>ExternalReferencing</b> class added as an aggregation [0..*] of <b>Location</b> class.
<b>ExchangeEnumerations</b>	All values in the ExchangeEnumerations now have definitions.
<b>FuelTypeEnum</b>	Values of <b>battery</b> , <b>biodeisel</b> , <b>dieselBatteryHybrid</b> , <b>ethanol</b> , <b>hydrogen</b> , <b>petrolBatteryHybrid</b> added to <b>FuelTypeEnum</b> .
<b>GeneralObstruction</b>	<b>GroupOfPeopleInvolved</b> added as a composition of <b>GeneralObstruction</b> allowing information about people on the roadway to be given.
<b>GenericPublication</b>	Added a <b>GenericPublication</b> as a concrete specialisation of <b>PayloadPublication</b> . This gives the ability to do a level B extension at the <b>PayloadPublication</b> level.
<b>GenericSituationRecord</b>	Added a <b>GenericSituationRecord</b> as a concrete specialisation of <b>SituationRecord</b> . This provides the ability to do a level B extension at the <b>SituationRecord</b> level.
<b>GroupOfLocationsByReference</b> remodelling	The top level of the location sub-model has been restructured making <b>GroupOfLocations</b> class abstract with specialisations of <b>GroupOfLocationsByReference</b> , <b>Itinerary</b> and <b>GroupOfNonOrderedLocations</b> . <b>Itinerary</b> class comprises an ordered (indexed) set of locations and one or more optional <b>routeDestinations</b> .
<b>HeaderInformation</b>	<p>Delete attribute <b>informationUsage</b> from <b>HeaderInformation</b> class.</p> <p>Delete <b>InformationUsageEnum</b>.</p> <p>Add value <b>restrictedToAuthoritiesTrafficOperatorsAndVMS</b> to <b>ConfidentialityValueEnum</b>.</p> <p>In <b>SituationRecord</b> class rename, change type and definition of attribute <b>InformationUsageOverride</b> to <b>confidentialityOverride</b>.</p>
<b>Humidity</b>	<b>Humidity</b> class added back in to <b>BasicDataValue.WeatherValue</b> (now <b>BasicData.WeatherData</b> ).

CONTENT PIM v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

Subject	Release Notes
<b>&lt;&lt;identifiable&gt;&gt; stereotype</b>	<p>The stereotype of &lt;&lt;identifiable&gt;&gt; has been changed to &lt;&lt;versionedIdentifiable&gt;&gt; in the following classes: <b>Situation, SituationRecord, PredefinedLocation, MeasurementSiteTable, MeasurementSiteRecord.</b></p> <p>Also any attribute in the above classes which held version information has been deleted from the class, since this information is now part of the &lt;&lt;versionedIdentifiable&gt;&gt; stereotype implementation and will appear as an xml attribute in the resulting schema.</p>
<b>Impact</b>	<p>Attribute <b>impactOnTraffic</b> deleted.</p> <p>Move attributes from <b>ImpactDetails</b> class to <b>Impact</b> class and delete <b>ImpactDetails</b> class.</p> <p>The definitions of attributes <b>numberOfLanesRestricted, numberOfOperationalLanes</b> and <b>originalNumberOfLanes</b> have been updated.</p> <p>Attribute <b>residualRoadWidth</b> now include in level A model.</p>
<b>Impact</b>	<p>The multiplicity of Impact has been changed to [0..*] so that a SituationRecord may have multiple instances of Impact. Each instance of Impact may also now have its own time/space profile defining the time period and locations applicable to the Impact instance within the overall bounds of validity and location applicable to the SituationRecord.</p>
<b>InjuryStatusTypeEnum</b>	<p>Value <b>injured</b> added to <b>InjuryStatusTypeEnum</b>.</p> <p>Value <b>slightInjury</b> renamed <b>slightlyInjured</b> in <b>InjuryStatusTypeEnum</b>.</p>
<b>IntensityKilogrammesPerSquare Metre</b>	<p>Changed to <b>IntensityKilogramsPerSquareMetre</b> (i.e. standardised throughout model the SI accepted spelling of kilograms)</p>
<b>LifeCycleManagement</b>	<p>Definition of <b>end</b> attribute in <b>LifeCycleManagement</b> class updated with conditional text.</p>
<b>Linear</b>	<p>The definitions of <b>Linear, AlertCLinear</b> and <b>TPEGLinearLocation</b> updated to clarify that the linear sections are on a single road, i.e. the start and end points are on the same road.</p>
<b>LoadTypeEnum</b>	<p>Value <b>materialsDangerousForWater</b> and <b>liquid</b> added to <b>LoadTypeEnum</b>.</p>
<b>LoadTypeEnum</b>	<p>Values <b>empty</b> and <b>goods</b> added.</p>
<b>Location</b>	<p>The <b>Location</b> package has been restructured to allow itineraries used elsewhere in the model to make use of those explicitly defined and those defined by reference to a predefined itinerary. Also the top level class, <b>GroupOfLocations</b>, has been redefined to encompass itineraries, non ordered locations and single locations.</p> <p>The <b>Point</b> and <b>Linear</b> packages have also been remodelled to incorporate a linear referencing method consistent with the concepts of ISO 19148. This replaces the RoadsideReferencing method.</p>
<b>Location</b> precision	<p>Attribute <b>locationPrecision</b> added to <b>SupplementaryPositionalDescription</b> class.</p>
<b>LocationDescriptionEnum</b>	<p>Values <b>inbound, outbound, onElevatedSection, onFlyover, onUndergroundSection</b> and <b>onUnderpass</b> added to <b>LocationDescriptionEnum</b>.</p>
<b>locationForDisplay</b>	<p><b>PointCoordinates</b> class added as an aggregation of <b>Location</b> class with role of <b>locationForDisplay</b>.</p>
<b>MaintenanceVehicles</b>	<p><b>AssociatedMaintenanceVehicles</b> class renamed <b>MaintenanceVehicles</b>.</p>

CONTENT PIM v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

Subject	Release Notes
<b>ManagementDescriptiveData</b>	<b>ManagementDescriptiveData</b> class deleted (was not connected to the rest of the model)
<b>MeasuredValue</b>	Definition of the <b>MeasuredValue</b> class corrected.
<b>MeasurementSiteRecord</b>	The note on the <b>measurementSide</b> attribute in the <b>MeasurementSiteRecord</b> has been deleted.
<b>MeasurementSiteRecord</b>	Attribute <b>measurementSiteRecordVersionTime</b> added to <b>MeasurementSiteRecord</b> class. Note the version of the measurement site record may be conveyed in a corresponding xml schema's attribute generated as part of the implementation of the <<versionedIdentifiable>> stereotyping of the class.
<b>MeasurementSiteTablePublication Package</b>	Definition of the <b>MeasurementSiteTablePublication</b> package corrected.
<b>MeasurementSiteTable</b>	<b>measurementSiteLocation</b> has changed from <b>Location</b> to <b>GroupOfLocations</b> .
Index Qualifiers used in the <b>MeasuredDataPublication</b> and <b>MeasurementSiteTablePublication</b>	The <b>index</b> qualifiers used in the <b>MeasuredDataPublication</b> and <b>MeasurementSiteTablePublication</b> models were on the wrong side of the aggregations. These have been corrected and the multiplicity and {ordering} have been removed to correctly model the intended semantics.
Indexed aggregations in the <b>MeasurementSiteTablePublication</b> and the <b>MeasuredDataPublication</b>	The indexed aggregations in the <b>MeasurementSiteTablePublication</b> and the <b>MeasuredDataPublication</b> have been given definitions which explain the use of the index.
<b>Mobility</b>	The definition of the <b>Mobility</b> class and <b>MobilityEnum</b> corrected to indicate it may apply to any associated <b>SituationRecord</b> .
<b>MultiLingualString</b>	Added tagged value of <b>schemaTypeInclude</b> = MultiLingualString.xsd (see meaning of tagged value changes elsewhere) MultiLingualString is no longer a specialisation of String (each PSM needs to decide its own mapping).
<b>NetworkManagement</b>	<b>NetworkManagement</b> sub-model redesigned to comprise a set of specialisations: <b>GeneralInstructionOrMessageToRoadUsers</b> , <b>ReroutingManagement</b> , <b>SpeedManagement</b> , <b>RoadOrCarriagewayOrLaneManagement</b> , <b>WinterDrivingManagement</b> and <b>GeneralNetworkManagement</b> and the enumerations used in each updated.  Top level <b>NetworkManagement</b> class made abstract and the following attributes added: <b>complianceOption</b> , <b>applicableForTrafficDirection</b> , <b>applicableForTrafficType</b> , <b>placesAtWhichApplicable</b> and <b>automaticallyInitiated</b> .
<b>NetworkManagementTypeEnum</b>	<b>NetworkManagementTypeEnum</b> renamed <b>GeneralNetworkManagementTypeEnum</b> and now used in <b>GeneralNetworkManagement</b> class. Value of <b>convoyServiceDueToBadWeather</b> changed to <b>convoyService</b> and definition amended. A number of other values relating to specific network management topics now moved to enumerations used in other specialisations of <b>NetworkManagement</b> .
<b>NonWeatherRelatedRoadConditionTypeEnum</b>	In <b>NonWeatherRelatedRoadConditionTypeEnum</b> value of <b>dieselOnRoad</b> added and value <b>petrolOnRoadway</b> renamed <b>petrolOnRoad</b> .
<b>ObstructionTypeEnum</b>	Value <b>debris</b> added to <b>ObstructionTypeEnum</b> . The value <b>movingHazardsOnTheRoad</b> in <b>ObstructionTypeEnum</b> changed to <b>hazardsOnTheRoad</b> . Value of <b>damagedCrashBarrier</b> moved from <b>ObstructionTypeEnum</b> to <b>InfrastructureDamageTypeEnum</b> (previously <b>EquipmentDamageTypeEnum</b> ).

CONTENT PIM v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

Subject	Release Notes
<b>OperatorAction</b>	Attribute <b>actionPlanIdentifier</b> added to <b>OperatorAction</b> class. Also <b>OperatorAction</b> class made non abstract to allow just TMP status to be exchanged without specific action details.
<b>OperatorActionStatusEnum</b>	New values added and definitions updated to <b>OperatorActionStatusEnum</b> . ( <b>requested, approved, beingImplemented, implemented, rejected, terminationRequested, beingTerminated</b> )
<b>overallImpact</b>	Attribute <b>overallImpact</b> in the <b>Situation</b> class changed to <b>overallSeverity</b> . Enumeration <b>OverallImpactEnum</b> changed to <b>OverallSeverityEnum</b> and definition updated. Value <b>normal</b> in enumeration <b>OverallSeverityEnum</b> (was <b>OverallImpactEnum</b> ) changed to <b>medium</b> and definition changed. Value <b>unknown</b> and <b>none</b> added to <b>OverallSeverityEnum</b> .
<b>PayloadPublication</b>	Attribute <b>feedDescription</b> added to <b>PayloadPublication</b> class.
<b>PayloadPublication.defaultLanguage</b>	Changed datatype to <b>Language</b> Added tagged value of <b>attribute</b> = yes Added tagged value of <b>schemaName</b> = lang (see meaning of tagged value changes elsewhere)
<b>PeopleInvolved</b>	Name of class <b>PeopleInvolved</b> changed to <b>GroupOfPeopleInvolved</b> and role name on association deleted. Definition of <b>numberOfPeople</b> attribute updated to reflect it is specific to this group of people with common attributes.
<b>PlacesAdviceEnum</b>	<b>PlacesAdviceEnum</b> renamed <b>PlacesEnum</b> and used now in Network Management sub-model. Values of <b>onElevatedSections, onEnteringTheCountry, onFlyovers, onLeavingTheCountry, onNonMotorways</b> and <b>onUnderpasses, onPasses, inBuiltUpAreas, inContraflowSections, inForestedAreas, inRuralAreas, onDownHillSections, onDualCarriagewaySections, onSingleCarriagewaySections, onUpHillSections</b> added.
<b>poorEnvironmentType</b>	Attribute <b>poorEnvironmentType</b> in <b>PoorEnvironmentConditions</b> class changed to have cardinality of [1..*].
<b>PoorEnvironmentTypeEnum</b>	Value of <b>pollution</b> (of unspecified nature) added to <b>PoorEnvironmentTypeEnum</b> . Value of <b>abnormalTemperature</b> deleted from <b>PoorEnvironmentTypeEnum</b> .
<b>PoorRoadInfrastructure</b> remodelling	<b>PoorRoadInfrastructure</b> class changed to <b>EquipmentOrSystemFault</b> and separate attributes added. <b>EquipmentOrSystemTypeEnum</b> added to cover equipments and systems whose condition may be of interest.  <b>EquipmentDamageObstruction</b> class changed to <b>InfrastructureDamageObstruction</b> and infrastructure types from the old <b>PoorRoadInfrastructureEnum</b> added to the new <b>InfrastructureDamageTypeEnum</b> .
<b>PrecipitationInformation</b>	Attribute <b>noPrecipitation</b> added to <b>PrecipitationInformation</b> class. Association with <b>PrecipitationDetail</b> made optional, i.e. [0..1].
<b>PrecipitationTypeEnum</b>	Value <b>freezingRain</b> added to <b>PrecipitationTypeEnum</b> .
<b>PredefinedLocationsPublication</b>	The <b>PredefinedLocationsPublication</b> has been restructured to allow itineraries, non ordered location groups and individual locations to be separately predefined and made version identifiable.
<b>probabilityOfOccurrence</b>	Delete value <b>improbable</b> from <b>ProbabilityOfOccurrenceEnum</b> . Delete attribute <b>provisional</b> in <b>OperatorAction</b> class.

CONTENT PIM v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

Subject	Release Notes
<b>PublicEventTypeEnum</b>	Values <i>agriculturalShow</i> , <i>airShow</i> , <i>boatShow</i> , <i>commercialEvent</i> , <i>culturalEvent</i> , <i>gardeningOrFlowerShow</i> , <i>motorShow</i> added to <b>PublicEventTypeEnum</b> .
<b>Reference</b>	<b>Reference</b> <<datatype>> is no longer a specialization of String. Instead it uses the <b>schemaTypeInclude</b> tagged value to define a complex type specified by <b>Reference.xsd</b> (comprising a unique reference plus a target class name)
<b>ReferenceSettings</b>	In the <b>ElaboratedDataPublication</b> the <b>ReferenceSettings</b> class now uses a reference to a predefined non ordered location group.
Reference to original Datex	Value <i>maintenanceWork</i> in <b>RoadMaintenanceTypeEnum</b> tagged with reference to original Datex RWK.
Reference to original Datex	Value <i>blastingWork</i> in <b>ConstructionWorkTypeEnum</b> tagged with reference to original Datex RBL.
Reference to original Datex	Value <i>clearanceWorkOnCarriageway</i> in <b>RoadMaintenanceTypeEnum</b> tagged with reference to original Datex CLW.
Reference to original Datex	Value <i>demolitionWork</i> in <b>ConstructionWorkTypeEnum</b> tagged with reference to original Datex RBD.
Reference to original Datex	Value <i>longTerm</i> in <b>RoadworksDurationEnum</b> tagged with reference to original Datex RWL.
Reference to original Datex	Value <i>major</i> in <b>RoadworksScaleEnum</b> tagged with reference to original Datex RWM.
Reference to original Datex	Value <i>constructionWork</i> in <b>ConstructionTypeEnum</b> tagged with reference to original Datex RCW.
<b>RelativeTrafficFlowEnum</b>	Values of <i>trafficFlowNormal</i> and <i>trafficVeryMuchLighterThanNormal</i> added to <b>RelativeTrafficFlowEnum</b> .
<b>Rerouting</b>	<b>Rerouting</b> class renamed <b>ReroutingManagement</b> and repositioned in the <b>NetworkManagement</b> sub-model. Attribute <i>reroutingType</i> changed to <i>reroutingManagementType</i> and corresponding enumeration updated. Attributes <i>entry</i> , <i>exit</i> and <i>roadOrJunctionNumber</i> added. Attribute <i>alternativeRerouting</i> changed to <i>signedRerouting</i> and definition updated. An <i>alternativeRoute</i> (new <i>Itinerary</i> class) aggregation to the <b>ReroutingManagement</b> class has been added.
<b>Restriction</b>	Contents of <b>Restriction</b> class remodelled in new Network Management sub-model.
<b>RoadMaintenanceTypeEnum</b>	Values of <i>controlledAvalanche</i> , <i>overheadWorks</i> , <i>litterClearance</i> and <i>sweepingOfRoad</i> added to <b>RoadMaintenanceTypeEnum</b> . Values of <i>overrunningRoadworks</i> and <i>clearanceAction</i> deleted from <b>RoadMaintenanceTypeEnum</b> . Value <i>clearanceWorkOnCarriageway</i> changed to <i>clearanceWork</i> . Value <i>roadworkClearanceInProgress</i> changed to <i>roadworksClearance</i> .  Attribute of <i>overrunning</i> added to <b>Validity</b> class.
<b>RoadOperatorServiceDisruption</b>	<b>RoadOperatorServiceDisruption</b> class added as a specialisation of <b>NonRoadEventInformation</b> . <b>RoadOperatorServiceDisruptionTypeEnum</b> created containing values <i>emergencyTelephoneServiceOutOfService</i> , <i>informationServiceTelephoneNumberOutOfService</i> and <i>noTrafficOfficerPatrolService</i> .



CONTENT PIM v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

Subject	Release Notes
<b>RoadsideAssistance</b>	Definition of <b>RoadsideAssistance</b> class updated.
<b>RoadsideServiceDisruption</b>	Definition of <b>RoadsideServiceDisruption</b> class and <b>RoadsideServiceDisruptionType</b> attribute updated.
<b>Roadworks</b>	Definition of attributes <b>underTraffic</b> , <b>urgentRoadworks</b> and <b>roadworksScale</b> have been updated.
Scope of attributes in model	<p>Scope of all attribute names made global:</p> <p>Attributes <b>accuracy</b>, <b>period</b> and <b>smoothingFactor</b> in <b>BasicDataValue</b> class (now in <b>DataValue</b> class) and <b>MeasurementSpecificCharacteristics</b> class now have aligned definitions.</p> <p>Attribute <b>measurementSiteReference</b> in <b>measurementSiteRecord</b> class changed to <b>measurementSiteIdentification</b>.</p> <p>Attribute <b>measurementSiteTableReference</b> in <b>MeasurementSiteTable</b> class changed to <b>measurementSiteTableIdentification</b>.</p> <p>Attribute <b>tppegDescriptorType</b> in <b>TPEGAreaDescriptor</b> class, <b>TPEGJunctionPointDescriptor</b> class, <b>TPEGILCPointDescriptor</b> class and <b>TPEGOtherPointDescriptor</b> class now has a consistent definition.</p> <p>Attribute <b>tppegDirection</b> in <b>TPEGPointLocation</b> class and <b>TPEGLinearLocation</b> class now has a consistent definition.</p> <p>Attribute <b>vehicleStatus</b> in <b>VehiclesInvolved</b> class and <b>Vehicle</b> class now has an updated consistent definition.</p> <p>Attribute <b>vehicleType</b> in <b>TravelTimeValue</b> class (now <b>TravelTimeData</b> class), <b>VehicleCharacteristics</b> class and <b>VehiclesInvolved</b> class now has an updated consistent definition.</p> <p>Attribute <b>locationSetReference</b> in <b>ReferenceSettings</b> class changed to <b>predefinedNonOrderedLocationGroupReference</b> for consistency with use in <b>Location</b> sub-model.</p>
<b>sequentialRampNumber</b>	Attribute <b>sequentialRampNumber</b> moved from <b>Restriction</b> class to <b>SupplementaryPositionalDescription</b> class and description elaborated.
<b>ServiceDisruption</b>	Class <b>ServiceDisruption</b> renamed <b>RoadsideServiceDisruption</b> . Attribute <b>serviceDisruptionType</b> renamed <b>roadsideServiceDisruptionType</b> . Enumeration <b>ServiceDisruptionTypeEnum</b> renamed <b>RoadsideServiceDisruptionTypeEnum</b> .
<b>SituationRecord</b>	<b>severity</b> attribute has been added to <b>SituationRecord</b> class
<b>Situation</b> versioning	<b>situationVersionTime</b> attributes added to the <b>Situation</b> class. Situation version may be provided in the xml attribute generated in the schema as a result of the <<versionedIdentifiable>> stereotype on the Situation class.
<b>slipperyRoad</b>	Value of <b>slipperyRoad</b> added to both <b>WeatherRelatedRoadConditionTypeEnum</b> and <b>NonWeatherRelatedRoadConditionTypeEnum</b> .
<b>SourceInformation</b>	Name of class <b>SourceInformation</b> changed to <b>Source</b> . Definition of attribute <b>sourceIdentification</b> changed to say it is an identifier.
<b>String</b>	Added tagged value of <b>facets</b> to <b>String</b> datatype. The value = <xs:maxLength value='1024'/> (see meaning of tagged value changes elsewhere)
<b>SubjectTypeOfWorks</b>	Name of class <b>SubjectTypeOfWorks</b> changed to <b>Subjects</b> .
<b>SubjectTypeOfWorksEnum</b>	Values of <b>gantry</b> , <b>noiseProtection</b> , <b>roadsideDrains</b> , <b>roadsideEmbankment</b> , <b>tollGate</b> added to <b>SubjectTypeOfWorksEnum</b> . Values of <b>carriageway</b> , <b>centralReservation</b> and <b>lane</b> deleted from <b>SubjectTypeOfWorksEnum</b> .

CONTENT PIM v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

Subject	Release Notes
<b>SupplementaryPositionalDescription</b>	A new class called <b>AffectedCarriagewayAndLanes</b> has been added as an aggregation of <b>SupplementaryPositionalDescription</b> and the attributes <b>carriageway</b> , <b>lane</b> , <b>footpath</b> and <b>lengthAffected</b> have been moved into it (with <b>carriageway</b> now mandatory).
Tagged value, new TV of <b>attribute</b>	New tagged value of <b>attribute</b> allowed which is valid on UML attributes, if attribute = yes, the UML attribute will be generated as an XSD attribute instead of an XSD element. This is the normal convention for representing metadata in xml schemas. Now used on <b>defaultLanguage</b> in the PayloadPublication class, on <b>measurementOrCalculatedTimePrecision</b> in the <b>BasicData</b> class and on all attributes in the <b>DataValue</b> class.
Tagged value, new TV of <b>facets</b>	New tagged value of <b>facets</b> allowed which provides the ability on datatypes to specify XML schema facets e.g. maxLength. The format should be in XML according to the XSD specifications. E.g. <xs:maxLength value='1024'/>
Tagged value, new TV of <b>rootElement</b>	New tagged value of <b>rootElement</b> allowed which provides the ability to specify a root element in the XML schema.
Tagged value, new TV of <b>schemaName</b>	New tagged value of <b>schemaName</b> allowed which provides the ability to specify a different name for an UML attribute in the generated XML schema. Currently only used on <b>defaultLanguage</b> in the <b>PayloadPublication</b> class.
Tagged value, new TV of <b>schemaTypeInclude</b>	New tagged value of <b>schemaTypeInclude</b> allowed which provides the ability to include a definition from an external XML schema. The content of the external schema is copied into the output schema.
Tagged value, removal of TV <b>contentType</b>	Tagged value <b>contentType</b> = complex has been removed. Was on <b>Date</b> , <b>Time</b> and <b>DateTime</b> .
Tagged value, removal of TV <b>maxLength</b>	Tagged value of <b>maxLength</b> has been removed. Was on <b>String</b> and <b>MultiLingualString</b> .
Tagging corrections	Tags of originalCode and Origin corrected on <b>RoadSurfaceConditionMeasurements.waterFilmThickness</b> .
Tagging corrections	Order tags on a number of attributes and enumeration values corrected.
<b>TPEGAreaDescriptor</b>	Attribute <b>tpegDescriptorType</b> renamed <b>tpegAreaDescriptorType</b> to conform to attribute scoping within model.
<b>TPEGAreaLocation</b>	Attribute <b>tpegLocationType</b> renamed <b>tpegAreaLocationType</b> to conform to attribute scoping within model.
<b>TPEGFramedPoint</b>	Attribute <b>tpegLocationType</b> renamed <b>tpegFramedPointLocationType</b> to conform to attribute scoping within model.
<b>TPEGILCPointDescriptor</b>	Attribute <b>tpegDescriptorType</b> renamed <b>tpegIlcPointDescriptorType</b> to conform to attribute scoping within model.
<b>TPEGJunctionPointDescriptor</b>	Attribute <b>tpegDescriptorType</b> renamed <b>tpegJunctionPointDescriptorType</b> to conform to attribute scoping within model.
<b>TPEGLinearLocation</b>	Attribute <b>tpegLocationType</b> renamed <b>tpegLinearLocationType</b> to conform to attribute scoping within model.
<b>TPEGLoc03OtherPointDescriptor SubtypeEnum</b>	Values of <b>administrativeAreaName</b> , <b>administrativeReferenceName</b> , <b>areaName</b> , <b>countyName</b> , <b>nationName</b> and <b>regionName</b> added to <b>TPEGLoc03OtherPointDescriptorSubtypeEnum</b> .
<b>TPEGNonJunctionPointDescriptor</b>	The association between <b>TPEGNonJunctionPoint</b> and <b>TPEGOtherPointDescriptor</b> with a role name of 'name' has now got a definition which explicitly requires the descriptor to identify the road on which the non junction point is located. A note has also been added to the TPEGPointLocation diagram.
<b>TPEGOtherPointDescriptor</b>	Attribute <b>tpegDescriptorType</b> renamed <b>tpegOtherPointDescriptorType</b> to conform to attribute scoping within model.

CONTENT PIM v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

Subject	Release Notes
<b>TPEGSimplePoint</b>	Attribute <b>tppegLocationType</b> renamed <b>tppegSimplePointLocationType</b> to conform to attribute scoping within model.
<b>TrafficControl</b>	Contents of TrafficControl class now remodelled in new Network Management sub-model.
<b>TrafficHeadway</b>	Definition of <b>TrafficHeadway</b> class corrected to include "time between vehicles"
<b>trafficRestrictionType</b> and <b>effectOnRoadLayout</b>	In <b>ImpactDetails</b> (now <b>Impact</b> ) class attribute <b>trafficRestrictionType</b> renamed <b>trafficConstrictionType</b> and definition updated. Enumeration <b>TrafficRestrictionType</b> renamed <b>TrafficConstrictionType</b> and definition updated plus value <b>laneDeviated</b> deleted. Attribute <b>effectOnRoadLayout</b> in <b>Roadworks</b> class deleted. Enumeration <b>EffectOnRoadLayoutEnum</b> deleted and values moved to new <b>NetworkManagementActionTypeEnum</b> .
<b>TrafficStatusValue</b>	<b>TrafficStatusValue</b> class name changed to <b>TrafficStatus</b> due to restructuring of the <b>BasicDataValue</b> (now <b>BasicData</b> ) sub-model.
<b>TravelTimeValue</b>	<b>TravelTimeValue</b> class name changed to <b>TravelTimeData</b> due to restructuring of the <b>BasicDataValue</b> (now <b>BasicData</b> ) sub-model.
<b>TrafficValue</b>	<b>TrafficValue</b> class name changed to <b>TrafficData</b> due to restructuring of the <b>BasicDataValue</b> (now <b>BasicData</b> ) sub-model.
<b>TrafficValue</b> (now <b>TrafficData</b> )	Definition of classes and attributes in <b>TrafficData</b> sub-classes have been corrected to refer to measurement site rather than point.
<b>TrafficView</b>	<b>predefinedLocationSetReference</b> attribute has been changed to <b>predefinedNonOrderedLocationGroupReference</b> and its type changed to <b>VersionedReference</b> .
<b>TransitServiceInformationEnum</b> and <b>TransitServiceTypeEnum</b>	Deleted values <b>ferryDelayed</b> , <b>ferryServiceNotOperating</b> , <b>railServiceNotOperating</b> , <b>ferryServicesIrregularDelays</b> , <b>railServiceIrregularDelays</b> , <b>railInformationServiceNotAvailable</b> and <b>rapidTransitInformationServiceNotAvailable</b> from <b>TransitServiceInformationEnum</b> .  Added values <b>ServiceNotOperating</b> , <b>irregularServiceDelays</b> and <b>informationServiceNotAvailable</b> to <b>TransitServiceInformationEnum</b> .  <b>ferryLoadCapacityChanged</b> changed to <b>loadCapacityChanged</b> in <b>TransitServiceInformationEnum</b> .
Typo	Correct spelling in definitions of <b>VehicleUsageEnum</b> and its attribute <b>commercial</b> .
Typo	<b>DangerousGoodRegulationsEnum</b> corrected to be <b>DangerousGoodsRegulationsEnum</b>
Typo	Correct spelling of <b>fourthWeekOfMonth</b> value in <b>WeekOfMonthEnum</b> .
Typo	Correct spelling of <b>inGalleries</b> value in <b>PlacesEnum</b> (previously <b>PlacesAdviceEnum</b> ).
<b>UrlLink</b>	<b>UrlLink</b> class containing attributes <b>urlLinkAddress</b> , <b>urlLinkDescription</b> and <b>urlLinkType</b> added to the <b>ReusableClasses</b> package. <b>UrlLink</b> class added as aggregation of <b>SituationRecord</b> class and <b>TrafficViewRecord</b> . <b>CCTVImages</b> class deleted from <b>TrafficViewPublication</b> .
<b>VehicleDetectionTime</b>	<b>passageTime</b> changed to <b>passageDurationTime</b> and <b>presenceTime</b> changed to <b>presenceDurationTime</b> . Also type changed to <b>Seconds</b> .



CONTENT PIM v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

Subject	Release Notes
<b>vehicleIdentifier</b>	Definitions of attributes <b>vehicleIdentifier</b> and <b>VehicleRegistrationPlateIdentifier</b> updated.
<b>VehicleObstructionTypeEnum</b>	Value of <b>vehicleInDifficulty</b> added to <b>VehicleObstructionTypeEnum</b> . Value of <b>vehiclesSlowingToLookAtAccident</b> moved from <b>VehicleObstructionTypeEnum</b> to <b>CauseTypeEnum</b> and definition amended.
<b>VehiclesInvolved</b>	Name of class <b>VehiclesInvolved</b> changed to <b>GroupOfVehiclesInvolved</b> and role name on association deleted. Definition of <b>numberOfVehicles</b> attribute updated to reflect it is specific to this group of vehicles with common attributes. Origin mapping back to DATEX NVE trigram removed - now mapped to <b>totalNumberOfVehiclesInvolved</b> . Aggregation to <b>VehicleCharacteristics</b> added and attributes <b>vehicleType</b> and <b>vehicleUsage</b> deleted.
<b>VehicleTypeEnum</b>	Values of <b>bicycle</b> , <b>caravan</b> , <b>moped</b> , <b>motorcycleWithSideCar</b> , <b>motorscooter</b> , <b>tanker</b> , <b>threeWheeledVehicle</b> , <b>trailer</b> , <b>tram</b> , <b>agriculturalVehicle</b> and <b>constructionOrMaintenanceVehicle</b> have been added to <b>VehicleTypeEnum</b> . Values <b>heavyVehicle</b> , <b>heavyLorry</b> , <b>lightVehicle</b> and <b>goodsVehicle</b> deleted.
<b>VersionedReference</b>	A new <b>VersionedReference</b> <<datatype>> has been added which uses the <b>schemaTypeInclude</b> tagged value to define a complex type specified by <b>VersionedReference.xsd</b> (comprising a unique reference, a version and a target class name).  The following attributes have had their types changed from <b>Reference</b> to <b>VersionedReference</b> and a new tagged value of " <b>targetClass</b> " added which contains the name of the class being referenced: <b>Situation.relatedSituation</b> , <b>ManagedCause.managedCause</b> , <b>LocationByReference.predefinedLocationReference</b> , <b>MeasuredDataPublication.measurementSiteTableReference</b> , <b>SiteMeasurements.measurementSiteReference</b> , <b>FilterReference.keyFilterReference</b> , <b>CatalogueReference.keyCatalogueReference</b>
<b>VMSFaultEnum</b>	Value <b>outOfService</b> added to <b>VMSFaultEnum</b> .
<b>VmsPublication</b> and <b>SignSetting</b>	Two new publications, <b>VmsPublication</b> and <b>VmsTablePublication</b> , have been added to model. The <b>VmsTablePublication</b> contains one or more tables each containing records which identify the characteristics of VMS units. The <b>VmsPublication</b> allows the publication (in bulk) of the current details of the setting and status of VMSs deployed on the road network. In addition the new <b>VmsPublication</b> structures have been integrated into the <b>OperatorAction</b> submodel (replacing the simplistic <b>SignSetting</b> structure) to maintain the ability to incorporate VMS settings into Situations. This includes making the <b>SignSetting</b> class realizable.
<b>WeatherRelatedRoadConditionTypeEnum</b>	Values <b>damp</b> and <b>wetOrDamp</b> deleted.
<b>WeatherValue</b>	<b>WeatherValue</b> class name changed to <b>WeatherData</b> due to restructuring of the <b>BasicDataValue</b> (now <b>BasicData</b> ) sub-model.
<b>Wind</b>	New dataType of <b>AngleInDegrees</b> introduced into <b>DataTypes:Specific</b> package. Attribute <b>windDirectionBearing</b> changed to be of type <b>AngleInDegrees</b> .

## 5. Tool to generate schema's

Modifications to the previous version are:

Schema generation tool v2.0 RELEASE NOTES (v1.0 to v2.0 changes)	
<u>Subject</u>	<u>Release Notes</u>
UML qualifiers	UML qualifiers was modelled incorrect in the UML model in version 1.0. When changed the tool has been updated so it will generate the same result as before
Order of classes	The order of the classes was dependent on the national settings in the operation system. Change so the order is independent of computer settings.
Extension classes	Bug found with extensions and entry classes. Only occurred when the extension is the entry class that is has the same name as the package.
Meta model	Re-designed the tool to use an Metadata model internally. This will make it easier to support different version of XMI in the future.
Extension point	Some classes did not have a extension point e.g. Cause.
Entry classes	Now entry classes (a class with the same name as the package) is not needed anymore.
Types generated	Only those types (data types and enumeration) that are used are generated in the schema.
Attributes connections	In 1.0 some attributes where not correctly link to it's type. The tool had a feature that solved this by looking the attribute up on it's name. This has been corrected in the model and the feature has been removed from the tool.
Sub schema	New feature to create sub schema. Via a tree a selection can be made. Selection can be loaded or saved.
Definitions	Definitions on data types where missing.

Schema generation tool v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

<u>Subject</u>	<u>Release Notes</u>
Attribute scope	New check: Check if two attributes in the model has the same name and type then the definition has to be the same.
Check on order	Now there is a check that order numbers on attributes and associations, separately, within a class has to be unique.
Check on role	When a role exists then a definition is required
BOM	The XML file generates a BOM(Byte Order Mark) this is optional and could cause problems with some tools. This has been removed.
rootElement	New tagged value. If present a element is generated.
schemaTypeInclude	New tagged value that loads definition of a type from an external XML schema. Used on MultiLingualString
attribute	New tagged value, if attribute = yes it will be generated as an attribute instead of an element
schemaName	New tagged value, possibility to give different name when generating the schema
initialValue	Tagged value initialValue has been removed.
Check on tagged values	Check on duplicates on tagged values.
LCC	Enhancements when generating correct LCC

Schema generation tool v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

<u>Subject</u>	<u>Release Notes</u>
Check on definitions	New checks on definitions
Checks	Generally more checks are done.
MultilingualString	Changed implementation of MultilingualString, it now includes one more "layer" called values. This fixes interoperability issues.
Qualifier	Corrected bug on mapping of qualifier. The former implementation used an anonymous types which caused problems in some places.
Naming of tool generated types	The name of all types that are created by the tool and not defined in the model, will begin with the letter _. The letter _ is not a valid name of a type that a user can create, so it will be impossible that a naming conflict can occur.
Stereotypes	Corrected bug that if a new stereotype was introduced, that type was not read at all. Now new stereotypes can be added and they will be read as an ordinary class.
VersionedIdentifiable	Implement support for VersionedIdentifiable stereotype. Mapping of VersionedIdentifiable are done to two XML attributes id and version.
Word export	Changed the column Identifiable to Stereotype. The Stereotype will include the name of the Stereotype on a class, if present.
Reference and VersionedReference	Added support for Reference and VersionedReference data types. The definition for these two are in separate XSD file (Reference.xsd and VersionedReference.xsd). The targetClass tagged value on a attribute will be used to generate typed "references".
targetClass	Added check on tagetClass. targetClass should point to a existing class in the model, otherwise there would be a warning and generation can continue.
Bug Selection feature	There are abstract base classes that never are used. Those are never visible in the selection. Added extra check to uncheck those that are not visible and does not have any specializations..

## Schema generation tool v2.0 RELEASE NOTES (v1.0 to v2.0 changes)

<u>Subject</u>	<u>Release Notes</u>
Check on attribute tagged value, on attributes	Check if legal values and that if attribute = yes then the multiplicity cannot be unbounded.
Data Dictionary export	When generating DD, generic types should not be included. Added support for exceptions in config.
LevelC generation	Removed hardcoded namespace prefix D2LogicalModel. The namespace defined in configuration are now used.

## 6. Exchange PSM and WSDL's

Only modified references in document.  
ChangeAnd modified WSDL's

## 7. WSDL's

Modifications in WSDL's to refer to correct xsd schema's etc.

## 8. XML schema

Related to modifications in tool.

<b>Subject</b>	<b>Description</b>
Qualifier	Corrected bug on mapping of qualifier. The former implementation used an anonymous types which caused problems in some places.
Naming of tool generated types	The name of all types that are created by the tool and not defined in the model, will begin with the letter _. The letter _ is not a valid name of a type that a user can create, so it will be impossible that a naming conflict can occur.
VersionedIdentifiable	Implement support for VersionedIdentifiable stereotype. Mapping of VersionedIdentifiable are done to two XML attributes id and version.
Reference and VersionedReference	Added support for Reference and VersionedReference data types. The targetClass XML attribute on a "reference" must have the name of the type/class that the reference point too.



## 9. Documentation on D<sub>A</sub>T<sub>E</sub>X II (guidelines)

### 9.1. User guide

Minor textual modifications due to reference to new version

### 9.2. SW developers guideline

Minor textual modifications due to reference to new version

### 9.3. XML schema tool

Minor textual modifications due to reference to new version

## 10. Documentation on DATEX II (supporting)

### 10.1. Example messages

New message set due to model modifications

### 10.2. Exchange PIM

Minor textual modifications due to reference to new version

### 10.3. Data definitions

Modified lists due to modifications in model and naming conventions.