class NRWN

GeoBase Draft - National Railway Network Model (NRWN)- (UML) 2011-12

Infrastructure Common Model

«DescriptiveEvol»
CommonModel::ContactInformation
+ NID :DT_UUID
+ authority :CL_Authority
+ lastUpdateDate :Character (8) YYYYMMDD
+ firstName :Character (50)
+ surname :Character (50)
+ officeName :Character (100)
+ areaCode :Integer (3)
+ telephoneNumber :Integer (7)
+ extension :Character (6)
+ email :Character (100)
+ organizationName :Character (100)
+ notes :Character (255)

user 0..* 1..*
operated 0..* 1..*
regulated 0..1 1..*
owned 1 1..*

«DescriptiveEvol»
CommonModel::GenericFeature
+ NID :DT_UUID
+ securityClass :CL_SecurityClassification
+ geometryObjectMetadata :DT_GeometryObjectMD
+ attributeObjectMetadata :DT_AttributeObjectMD

feature 1 1..*

«DescriptiveEvol»
CommonModel::Dataset
+ datasetName :DT_DatasetMD

Line Geometry

«spatialDescriptiveEvol»
Line Geometry::Track
+ trackSegmentID :DT_UUID
+ geometry :GB_Curve
+ trackName :Character (100)
+ trackClassification :CL_TrackClassification
+ regulator :CL_Regulator
+ type :CL_TransportType
+ use :CL_UseType
+ gauge :CL_Gauge
+ numberOfTracks :Integer (1)
+ electrification :CL_Boolean
+ status :CL_Status
+ designSpeeds :DT_DesignSpeeds
+ sourceID :Character (50)
+ operatorStart :Real (5,2)
+ operatorEnd :Real (5,2)

1 1
1..* 1..* 1..* 1..*

Point Geometry

«DescriptiveEvol»
Point Geometry::TrackEvent
+ geometry :GB_Point
+ trackNID :DT_UUID
+ trackName :Character(100)
+ trackClassification :CL_TrackClassification
+ subdivision1Reference :DT_Subdivision
+ subdivision2Reference :DT_Subdivision

1..* 1..*

«spatialDescriptiveEvol»
Point Geometry::Junction
+ geometry :GB_Point
+ boundaryTransitionIndicator :CL_Boolean
+ subdivisionLimitIndicator :CL_Boolean
+ type :CL_TrackJunctionType

«spatialDescriptiveEvol»
Point Geometry::Crossing
+ crossingID :DT_UUID
+ levelOfCrossing :CL_CrossingLevel
+ type :CL_CrossingType
+ warningSystem :CL_WarningType
+ roadClassification :CL_RoadClassification
+ crossingTypeName :Character (250)
+ routeNumber :Character (10)
+ roadAccessibility :CL_RoadAccessibility
+ TCID :Integer (9)

«spatialDescriptiveEvol»
Point Geometry::MarkerPost

«spatialDescriptiveEvol»
Point Geometry::Station
+ name :DT_Names
+ type :CL_StationType
+ numberOfPlatforms :Integer (2)

1

subdivision
touches
touches

Subdivision Table

1..2

«DescriptiveEvol»
Tables::Subdivision
+ NID :DT_UUID
+ name :Character (100)
+ start :Real (5,2)
+ end :Real (5,2)
+ unitOfDistance :CL_UnitOfMeasure

1..2 1..2

subdivision
subdivision

owner
operator user
user

Point or Line Geometry

1..* 1

«DescriptiveEvol»
Point or Line Geometry::Structure
+ structureID :DT_UUID
+ name :DT_Names
+ type :CL_StructureType
+ trackNID :DT_UUID
+ trackName :Character (100)
+ trackClassification :CL_TrackClassification
+ subdivision1Reference :DT_Subdivision
+ subdivision2Reference :DT_Subdivision

1
geometry
1

«spatialDescriptiveEvol»
Point or Line Geometry::PointOrLine
+ geometryPoint :GB_Point
+ geometryLine :GB_Curve

Carrier Table

1 0..4 1..4

«DescriptiveEvol»
Tables::Carrier
+ NID :DT_UUID
+ englishName :Character (100)
+ frenchName :Character (100)
+ reportingMark :Character (10)
+ activeDate :Character (8) YYYYMMDD
+ retiredDate :Character (8) YYYYMMDD

Owner Table

1

«DescriptiveEvol»
Tables::Owner
+ NID :DT_UUID
+ englishName :Character (100)
+ frenchName :Character (100)
+ abbreviatedName :Character (10)
+ activeDate :Character (8) YYYYMMDD
+ retiredDate :Character (8) YYYYMMDD

Point Geometry

+ Crossing
+ Junction
+ MarkerPost
+ Station
+ *TrackEvent*

«CodeList»
Code Lists::CL_CrossingLevel
+ unknown :Integer = -1
+ atGrade :Integer = 1
+ over :Integer = 2
+ under :Integer = 3
+ combination :Integer = 4

«CodeList»
Code Lists::CL_RoadClassification
+ unknown :Integer = -1
+ none :Integer = 0
+ freeway :Integer = 1
+ expressway/Highway :Integer = 2
+ arterial :Integer = 3
+ collector :Integer = 4
+ local/Street :Integer = 5
+ local/Strata :Integer = 6
+ local/Unknown :Integer = 7
+ alleyway/Lane :Integer = 8
+ ramp :Integer = 9
+ resource/Recreation :Integer = 10
+ rapidTransit :Integer = 11
+ serviceLane :Integer = 12
+ winter :Integer = 13
+ farm :Integer = 14

«CodeList»
Code Lists::CL_TrackJunctionType
+ unknown :Integer = -1
+ administrative :Integer = 1
+ switch :Integer = 2
+ diamond :Integer = 3
+ end :Integer = 4
+ other :Integer = 5

«CodeList»
Code Lists::CL_CrossingType
+ other :Integer = 1
+ trail :Integer = 2
+ hydrographic :Integer = 3
+ road :Integer = 4
+ track :Integer = 5
+ pipeline :Integer = 6
+ powerTransmissionLine :Integer = 7

«CodeList»
Code Lists::CL_WarningType
+ unknown :Integer = -1
+ none :Integer = 0
+ FLB :Integer = 1
+ FLBG :Integer = 2
+ SRCS :Integer = 3
+ STOP :Integer = 4
+ SRCSAndSTOP :Integer = 5
+ trafficSignal :Integer = 6
+ closedGate :Integer = 7
+ walkDontWalk :Integer = 8
+ other :Integer = 9

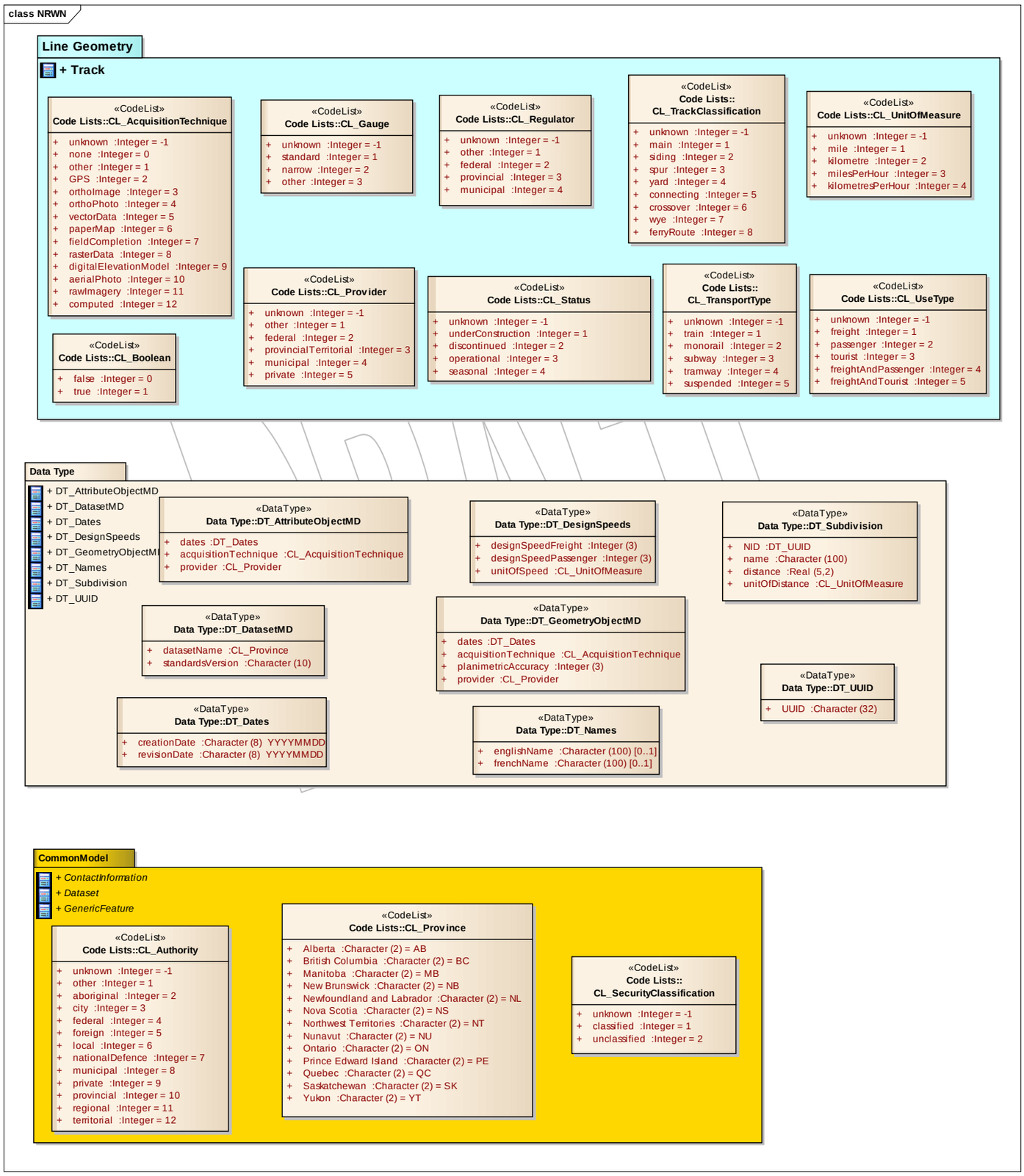
«CodeList»
Code Lists::CL_StationType
+ unknown :Integer = -1
+ passengerStation :Integer = 1
+ maintenance :Integer = 2
+ intermodal :Integer = 3
+ other :Integer = 4
+ mixed :Integer = 5
+ freight :Integer = 6

«CodeList»
Code Lists::CL_RoadAccessibility
+ unknown :Integer = -1
+ public :Integer = 1
+ private :Integer = 2

Point or Line Geometry

+ PointOrLine
+ *Structure*

«CodeList»
Code Lists::CL_StructureType
+ unknown :Integer = -1
+ bridge :Integer = 1
+ bridgeMoveable :Integer = 2
+ snowShed :Integer = 3
+ tunnel :Integer = 4
+ culvert :Integer = 5
+ dam :Integer = 6


class NRWN
Line Geometry
+ Track
«CodeList»
Code Lists::CL_AcquisitionTechnique
+ unknown :Integer = -1
+ none :Integer = 0
+ other :Integer = 1
+ GPS :Integer = 2
+ orthoImage :Integer = 3
+ orthoPhoto :Integer = 4
+ vectorData :Integer = 5
+ paperMap :Integer = 6
+ fieldCompletion :Integer = 7
+ rasterData :Integer = 8
+ digitalElevationModel :Integer = 9
+ aerialPhoto :Integer = 10
+ rawImagery :Integer = 11
+ computed :Integer = 12
«CodeList»
Code Lists::CL_Gauge
+ unknown :Integer = -1
+ standard :Integer = 1
+ narrow :Integer = 2
+ other :Integer = 3
«CodeList»
Code Lists::CL_Regulator
+ unknown :Integer = -1
+ other :Integer = 1
+ federal :Integer = 2
+ provincial :Integer = 3
+ municipal :Integer = 4
«CodeList»
Code Lists::
CL_TrackClassification
+ unknown :Integer = -1
+ main :Integer = 1
+ siding :Integer = 2
+ spur :Integer = 3
+ yard :Integer = 4
+ connecting :Integer = 5
+ crossover :Integer = 6
+ wye :Integer = 7
+ ferryRoute :Integer = 8
«CodeList»
Code Lists::CL_UnitOfMeasure
+ unknown :Integer = -1
+ mile :Integer = 1
+ kilometre :Integer = 2
+ milesPerHour :Integer = 3
+ kilometresPerHour :Integer = 4
«CodeList»
Code Lists::CL_Boolean
+ false :Integer = 0
+ true :Integer = 1
«CodeList»
Code Lists::CL_Provider
+ unknown :Integer = -1
+ other :Integer = 1
+ federal :Integer = 2
+ provincialTerritorial :Integer = 3
+ municipal :Integer = 4
+ private :Integer = 5
«CodeList»
Code Lists::CL_Status
+ unknown :Integer = -1
+ underConstruction :Integer = 1
+ discontinued :Integer = 2
+ operational :Integer = 3
+ seasonal :Integer = 4
«CodeList»
Code Lists::
CL_TransportType
+ unknown :Integer = -1
+ train :Integer = 1
+ monorail :Integer = 2
+ subway :Integer = 3
+ tramway :Integer = 4
+ suspended :Integer = 5
«CodeList»
Code Lists::CL_UseType
+ unknown :Integer = -1
+ freight :Integer = 1
+ passenger :Integer = 2
+ tourist :Integer = 3
+ freightAndPassenger :Integer = 4
+ freightAndTourist :Integer = 5
Data Type
+ DT_AttributeObjectMD
+ DT_DatasetMD
+ DT_Dates
+ DT_DesignSpeeds
+ DT_GeometryObjectMD
+ DT_Names
+ DT_Subdivision
+ DT_UUID
«DataType»
Data Type::DT_AttributeObjectMD
+ dates :DT_Dates
+ acquisitionTechnique :CL_AcquisitionTechnique
+ provider :CL_Provider
«DataType»
Data Type::DT_DesignSpeeds
+ designSpeedFreight :Integer (3)
+ designSpeedPassenger :Integer (3)
+ unitOfSpeed :CL_UnitOfMeasure
«DataType»
Data Type::DT_Subdivision
+ NID :DT_UUID
+ name :Character (100)
+ distance :Real (5,2)
+ unitOfDistance :CL_UnitOfMeasure
«DataType»
Data Type::DT_DatasetMD
+ datasetName :CL_Province
+ standardsVersion :Character (10)
«DataType»
Data Type::DT_GeometryObjectMD
+ dates :DT_Dates
+ acquisitionTechnique :CL_AcquisitionTechnique
+ planimetricAccuracy :Integer (3)
+ provider :CL_Provider
«DataType»
Data Type::DT_UUID
+ UUID :Character (32)
«DataType»
Data Type::DT_Dates
+ creationDate :Character (8) YYYYMMDD
+ revisionDate :Character (8) YYYYMMDD
«DataType»
Data Type::DT_Names
+ englishName :Character (100) [0..1]
+ frenchName :Character (100) [0..1]
CommonModel
+ ContactInformation
+ Dataset
+ GenericFeature
«CodeList»
Code Lists::CL_Authority
+ unknown :Integer = -1
+ other :Integer = 1
+ aboriginal :Integer = 2
+ city :Integer = 3
+ federal :Integer = 4
+ foreign :Integer = 5
+ local :Integer = 6
+ nationalDefence :Integer = 7
+ municipal :Integer = 8
+ private :Integer = 9
+ provincial :Integer = 10
+ regional :Integer = 11
+ territorial :Integer = 12
«CodeList»
Code Lists::CL_Province
+ Alberta :Character (2) = AB
+ British Columbia :Character (2) = BC
+ Manitoba :Character (2) = MB
+ New Brunswick :Character (2) = NB
+ Newfoundland and Labrador :Character (2) = NL
+ Nova Scotia :Character (2) = NS
+ Northwest Territories :Character (2) = NT
+ Nunavut :Character (2) = NU
+ Ontario :Character (2) = ON
+ Prince Edward Island :Character (2) = PE
+ Quebec :Character (2) = QC
+ Saskatchewan :Character (2) = SK
+ Yukon :Character (2) = YT
«CodeList»
Code Lists::
CL_SecurityClassification
+ unknown :Integer = -1
+ classified :Integer = 1
+ unclassified :Integer = 2