Infotripla Tampere Datex II Services

User documentation

Document version 1.0

Table of Contents

1. Introduction

Datex II has been developed in attempt to standardize the traffic information exchange between various actors e.g. traffic management centres, traffic information centres and service providers.

1.1. Overview

Infotripla provides traffic information feeds that are combined from various information sources, most notably Finnish Transport Agency and Finnish Meteorological Institute. Also a number of vehicle fleets from third parties are collecting sensory data for Infotripla which is then used to enrich the content – especially real time traffic flow information. For Tampere Datex II service the used source are the traffic announcements done by an author using a dedicated web-portal for that purpose. This information is collected and published as a dedicated Tampere Datex II Service which provides published Datex2 -messages at 1-minute intervals.

1.2. Purpose

This document aims to describe the Infotripla Datex II Service for Tampere in such detail that third parties are able to develop an interface and start using the data. Help and Assistance -section provides contact details in case of further assistance is required.

1.3. Abbreviations

DATEX II	Data Exchange 2 – European specifications for language independent exchange of traffic information
HTTP	Hyper Text Transfer Protocol
SOAP	Service Oriented Architecture Protocol
URL	Uniform Resource Locator
WGS84	World Geodetic System, 1984
XML	Extensible Markup Language

2. Information Products

This section provides a high level technical view to Infotripla's DATEX II service for Tampere, introducing the available data product and instructs how to access it.

2.1. Available information product

Infotripla structures the traffic information for Tampere as a one combined set of traffic situations ,such as unplanned events or current and future roadworks. Infotripla is using Datex II Pull Exchange mechanism meaning that data delivery is initiated by the data utilizer and is a snapshot of the Tampere traffic situation at the time of request is delivered. Available Information product, its update frequence and estimated payload sizes is described below.

Information Product	Product Type	Update frequency	Estimated Payload Size
Tampere traffic events	Event	1 minutes	100 K bytes

The estimated payload sizes at the moment are more like good guesses and they will be more accurate in the future.

2.2. Tampere traffic events -product

The Tampere traffic events -information product consist of information that is typically warnings, roadworks or other potentially valuable information what is happening in the roadway at Tampere region. The messages are using Datex II 2.1 schema and the Datex II -payload type used is *SituationPublication*. Contents for the Tampere traffic events -payload is defined more detailed in section 3.

2.3. Access

All information products are published as Web Service interfaces using HTTP transport protocol and SOAP Version 1.1 as described in the DATEX II Software Developers Guide available from the official DATEX II website (http://www.datex2.eu). All interfaces are secured with HTTP Basic Access Authentication and only users with explicit permisson are allowed to download payload data. Credentials are delivered as an offline process according to a separate contract between Infotripla and the data utilizer. After receiving the credentials, the WSDL -documents describing the interfaces are accessible from the following URLs:

1. Tampere Traffic Events

http://tampere.datex2.fi:8180/axis2/services/tampereDatex2PullService?wsdl

2.3.1. Requesting the data

In order to receive and utilize the data a DATEX II Client web service should be built with the corresponding WSDL document (see above). To just check the contents of the feeds a web service testing tool comes in handy e.g. open source solution SoapUI (http://www.soapui.org/).

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3. Event products

Fundamentally, the payload of the event product messages comply to Datex II 2.1 -schema (available at http://www.datex2.eu/news/2012/06/05/datex-ii-v21-has-been-released-datex-ii-website-0) but this section aims to give deeper insight what are the relevant variable parts within the Infotripla's event product publications. Chapter 3.1 presents a message template with placeholders (presented in bold) and chapter 3.2 provides descriptions for the placeholders.

3.1. Event Product Message Template

```
<d2LogicalModel xsi:schemaLocation="http://datex2.eu/schema/2_0RC2/2_0
http://www.datex2.eu/schema/2_0RC2/2_0/DATEXIISchema_2_0RC2_2_0.xsd" modelBaseVersion="2.0RC2"
xmlns="http://datex2.eu/schema/2_0RC2/2_0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

    <exchange>
        <supplierIdentification>
            <country>fi</country>
            <nationalIdentifier>InfoTripla Oy</nationalIdentifier>
        </supplierIdentification>
    </exchange>

    <payloadPublication lang="fi" xsi:type="SituationPublication">
        <publicationTime>{D2_PUBLICATION_TIME}</publicationTime>
        <publicationCreator>
            <country>fi</country>
            <nationalIdentifier>InfoTripla Oy</nationalIdentifier>
        </publicationCreator>

        <!-- Publication has 0..N situation elements  --->
        <situation id="{D2_SITUATION_ID}" version="{D2_SITUATION_VERSION}">
            <overallSeverity>{D2_SITUATION_SEVERITY}</overallSeverity>
            <headerInformation>
                <confidentiality>noRestriction</confidentiality>
                <informationStatus>real</informationStatus>
                <urgency>normalUrgency</urgency>
            </headerInformation>

            <!-- A Situation can have 1..N situation records -->
            <situationRecord version="1" id="{D2_SITUATION_RECORD_ID}" xsi:type="{D2_SITUATION_RECORD_TYPE}">
                <situationRecordCreationTime>{D2_SITUATION_RECORD_CREATION_TIME}</situationRecordCreationTime>
                <situationRecordVersionTime>{D2_SITUATION_RECORD_VERSION_TIME}</situationRecordVersionTime>
                <situationRecordFirstSupplierVersionTime>{D2_SITUATION_RECORD_FIRST_SUPPLIER_TIME}
                </situationRecordFirstSupplierVersionTime>
                <probabilityOfOccurrence>{D2_SITUATION_RECORD_PROB}</probabilityOfOccurrence>
                <source>
                    <sourceIdentification>{D2_SOURCE_ID}</sourceIdentification>
                    <sourceName>
                        <values>
                            <value lang="fi">{D2_SOURCE_NAME}</value>

                        </values>
                    </sourceName>
                </source>
                <validity>
                    <validityStatus>definedByValidityTimeSpec</validityStatus>
                    <validityTimeSpecification>
                        <overallStartTime>{D2_OVERALL_START_TIME}</overallStartTime>
                        <overallEndTime>{D2_OVERALL_END_TIME}</overallEndTime>
                    </validityTimeSpecification>
                </validity>
                <impact>
                    <delays>
                        <delayBand>{D2_IMPACT_DELAY}</delayBand>
                    </delays>
                </impact>
                <generalPublicComment>
                    <comment>
                        <values>
```

```
                    <value lang="{D2_COMMENT_LANGUAGE}">{D2_COMMENT_VALUE}</value>
                </values>
            </comment>
            <commentType>{D2_COMMENT_TYPE}</commentType>
        </generalPublicComment>
        <groupOfLocations>{D2_GROUP_OF_LOCATIONS}</groupOfLocations>
        {D2_SITUATION_RECORD_CONTENT}
        </situationRecord>
    </situation>
  </payloadPublication>
</d2LogicalModel>
```

3.2. Placeholder Explanations

This section defines the placeholders introduced in chapter 3.1.

3.2.1. {D2_PUBLICATION_TIME}

The exact time when the publication was compiled at Infotripla's system.

3.2.2. {D2_SITUATION_ID}

Identifier for a situation. Note that this value is not necessarily unique. There might have been earlier situations with the same identifier but with different content. For example details about the incident may get more accurate over time. In general this value can be used for tracking the lifecycle of a situation.

3.2.3. {D2_SITUATION_VERSION}

Version of this situation.

3.2.4. {D2_SITUATION_SEVERITY}

Infotripla is using seven different overall severity values for a situation. (*highest*, *high, medium, low, lowest, none, unknown*)

3.2.5. {D2_SITUATION_RECORD_ID}

Each situation record has a unique identifier.

3.2.6. {D2_SITUATION_RECORD_TYPE}

The following table describes the mapping of Infotripla's traffic events to DATEX II Situation Record types and situation record contents.

Event reason	DATEX II Situation Record type	DATEX II Supplemental Enumeration Name	DATEX II Supplemental Enumeration Value
Diversion	ReroutingManagement	reroutingManagementType	followLocalDiversion / followDiversionSigns
Clearance work	MaintenanceWorks	roadMaintenanceType	clearanceWork
Roadworks on	MaintenanceWorks	roadMaintenanceType	roadsideWork

Event reason	DATEX II Situation Record type	DATEX II Supplemental Enumeration Name	DATEX II Supplemental Enumeration Value
the central reserve			
Maintenance of the road lighting system	MaintenanceWorks	roadMaintenanceType	maintenanceWork + subjectTypeOfWorks: lightningSystem
Maintenance of cables	MaintenanceWorks	roadMaintenanceType	maintenanceWork + subjectTypeOfWorks: buriedCables
Maintenance of roadside drains	MaintenanceWorks	roadMaintenanceType	roadsideWork + subjectTypeOfWorks: roadsideDrains
Removal of slush	MaintenanceWorks	roadMaintenanceType	snowPloughsInUse + subjectTypeOfWorks: road
Road maintenance using Road-fixing powder	MaintenanceWorks	roadMaintenanceType	resurfacingWork + subjectTypeOfWorks: road
Municipal maintenance work	MaintenanceWorks	roadMaintenanceType	maintenanceWork
Maintenance of level crossing	MaintenanceWorks	roadMaintenanceType	maintenanceWork + subjectTypeOfWorks: levelCrossing
Rut patching	MaintenanceWorks	roadMaintenanceType	repairWork + subjectTypeOfWorks: road
Brushwood cutting	MaintenanceWorks	roadMaintenanceType	treeAndVegetationCutting Work + subjectTypeOfWorks: roadsideEmbankment
Only one operational lane at the place of maintenance work	MaintenanceWorks	roadMaintenanceType	MaintenanceWork + impact: numberOfOperationalLanes: 1
Finishing works	MaintenanceWorks	roadMaintenanceType	roadworksClearance
Paving works	MaintenanceWorks	roadMaintenanceType	resurfacingWork
Roadworks	MaintenanceWorks	roadMaintenanceType	roadworks
Road Marking	MaintenanceWorks	roadMaintenanceType	roadMarkingWork

Event reason	DATEX II Situation Record type	DATEX II Supplemental Enumeration Name	DATEX II Supplemental Enumeration Value
Work			
Installation of detectors	MaintenanceWorks	roadMaintenanceType	installationWork + subjectTypeOfWorks: measurementEquipment
Maintenance of roadside equipment	MaintenanceWorks	roadMaintenanceType	maintenanceWork + subjectTypeOfWorks: roadsideEquipment
Grass cutting work	MaintenanceWorks	roadMaintenanceType	grassCuttingWork + subjectTypeOfWorks: roadsideEmbankment
Maintenance of electric wires	MaintenanceWorks	roadMaintenanceType	repairWork + subjectTypeOfWorks: roadsideEquipment
Slippery road	NonWeatherRelatedConditions	NonWeatherRelatedConditions	slipperyRoad
Oil on road	NonWeatherRelatedConditions	NonWeatherRelatedConditions	oilOnRoad
Road surface in poor condition	NonWeatherRelatedConditions	NonWeatherRelatedConditions	roadSurfaceInPoorCondition
*Abnormal driving conditions	NonWeatherRelatedConditions	drivingConditionType*	hazardous / veryHazardous
Bad driving conditions	Conditions	drivingConditionType	hazardous
Very bad driving conditions	Conditions	drivingConditionType	veryHazardous
Normal driving conditions	Conditions	drivingConditionType	normal
Icy roads	WeatherRelatedRoadConditions	weatherRelatedRoadConditionType	ice
Danger of aquaplaning	WeatherRelatedRoadConditions	weatherRelatedRoadConditionType	surfaceWater
Ice building up on the roadway	WeatherRelatedRoadConditions	weatherRelatedRoadConditionType	iceBuildUp
Slippery in places	WeatherRelatedRoadConditions	weatherRelatedRoadConditionType	icyPatches
Black ice	WeatherRelatedRoadConditions	weatherRelatedRoadConditionType	blackIce

Event reason	DATEX II Situation Record type	DATEX II Supplemental Enumeration Name	DATEX II Supplemental Enumeration Value
Slush	WeatherRelatedRoadConditions	weatherRelatedRoadConditionType	slushOnRoad
Snow on road	WeatherRelatedRoadConditions	weatherRelatedRoadConditionType	snowOnTheRoad
Fresh snow	WeatherRelatedRoadConditions	weatherRelatedRoadConditionType	freshSnow
Snow drifts	WeatherRelatedRoadConditions	weatherRelatedRoadConditionType	snowDrifts
Water on the road	WeatherRelatedRoadConditions	weatherRelatedRoadConditionType	surfaceWater
Icy pedestrian or bicycle ways	WeatherRelatedRoadConditions	weatherRelatedRoadConditionType	wetIcyPavement
Dry snow on the road	WeatherRelatedRoadConditions	2x weatherRelatedRoadConditionType	dry AND snowOnTheRoad
Wet snow on the road	WeatherRelatedRoadConditions	2x weatherRelatedRoadConditionType	wet AND snowOnTheRoad
Wet or damp road	WeatherRelatedRoadConditions	weatherRelatedRoadConditionType	wet
Dry road	WeatherRelatedRoadConditions	weatherRelatedRoadConditionType	dry
Speed restriction in operation	SpeedManagement	speedManagementType	speedRestrictionInOperation (+) temporarySpeedLimit: *max speed kph*
Survey / interview for road users	AuthorityOperation	authorityOperationType	survey
Research or measurement work	AuthorityOperation	authorityOperationType	undefinedAuthorityActivity
Demonstartion / manifestation	DisturbanceActivity	disturbanceActivityType	demonstration
Exposition / fair	PublicEvent	publicEventType	fair
Sports related activity	PublicEvent	publicEventType	sportsMeeting
Public event	PublicEvent	publicEventType	majorEvent

Event reason	DATEX II Situation Record type	DATEX II Supplemental Enumeration Name	DATEX II Supplemental Enumeration Value
Marathon	PublicEvent	publicEventType	marathon
Cavalcade	PublicEvent	publicEventType	parade
Ferry service not operating	TransitInformation	transitServiceInformation	serviceNotOperating + transitServiceType: ferry
Ferry repair work	TransitInformation	transitServiceInformation	delayDueRepairs + transitServiceType: ferry
Delays in ferry service due timber floating	TransitInformation	transitServiceInformation	delaysDueToFlotsam + transitServiceType: ferry
Ferry's load capacity changed	TransitInformation	transitServiceInformation	loadCapacityChanged + transitServiceType: ferry
Temporary changes to ferry's timetables	TransitInformation	transitServiceInformation	temporaryChangesToTimetables + transitServiceType: ferry
Irregular service delays	TransitInformation	transitServiceInformation	irregularServiceDelays + transitServiceType: ferry
Ferry departing on schedule	TransitInformation	transitServiceInformation	departureOnSchedule + transitServiceType: ferry
Blizzard	PoorEnvironmentConditions	poorEnvironmentType	blizzard
Blowing snow	PoorEnvironmentConditions	poorEnvironmentType	blowingSnow
Dense fog	PoorEnvironmentConditions	poorEnvironmentType	denseFog
Freezing fog	PoorEnvironmentConditions	poorEnvironmentType	freezingFog
Fog	PoorEnvironmentConditions	poorEnvironmentType	fog
Patchy fog	PoorEnvironmentConditions	poorEnvironmentType	patchyFog
Reduced visibility due to smoke	PoorEnvironmentConditions	poorEnvironmentType	smokeHazard
Reduced visibility due to spraying water	PoorEnvironmentConditions	poorEnvironmentType	sprayHazard
Reduced visibility	PoorEnvironmentConditions	poorEnvironmentType	visibilityReduced
Strong winds blowing from the sides	PoorEnvironmentConditions	poorEnvironmentType	crosswinds

Event reason	DATEX II Situation Record type	DATEX II Supplemental Enumeration Name	DATEX II Supplemental Enumeration Value
Rainn	PoorEnvironmentConditions	poorEnvironmentType	rain
Snowfall	PoorEnvironmentConditions	poorEnvironmentType	snowfall
Gusty winds	PoorEnvironmentConditions	poorEnvironmentType	gustyWinds
Hail	PoorEnvironmentConditions	poorEnvironmentType	hail
Heavy snowfall	PoorEnvironmentConditions	poorEnvironmentType	heavySnowfall
Heavy rain	PoorEnvironmentConditions	poorEnvironmentType	heavyRain
Freezing rain	PoorEnvironmentConditions	poorEnvironmentType	Rain + precipitationDetailType: freezingRain
Strong winds	PoorEnvironmentConditions	poorEnvironmentType	strongWinds
Sleet	PoorEnvironmentConditions	poorEnvironmentType	sleet
Storm	PoorEnvironmentConditions	poorEnvironmentType	thunderstorms
The winds have settled	PoorEnvironmentConditions	poorEnvironmentType	strongWinds + LifeCycleManagement: over**
Deposit	PoorEnvironmentConditions	poorEnvironmentType	frost
Oversized transport	VehicleObstruction	vehicleObstructionType	prohibitedVehicleOnTheRoadway
Oversized transport over	VehicleObstruction	vehicleObstructionType	prohibitedVehicleOnTheRoadway + LifeCycleManagement: over**
Broken down vehicle on the roadway	VehicleObstruction	vehicleObstructionType	brokenDownVehicle
Broken down vehicle moved away	VehicleObstruction	vehicleObstructionType	brokenDownVehicle + LifeCycleManagement: over**
Broken down heavy lorry on the roadway	VehicleObstruction	vehicleObstructionType	brokenDownHeavyLorry
Military convoy	VehicleObstruction	vehicleObstructionType	militaryConvoy
Heavy lorry stuck	VehicleObstruction	vehicleObstructionType	vehicleStuck + vehicleType: lorry

Event reason	DATEX II Situation Record type	DATEX II Supplemental Enumeration Name	DATEX II Supplemental Enumeration Value
Vehicle on fire	VehicleObstruction	vehicleObstructionType	vehicleOnFire
Vehicle on wrong carriageway	VehicleObstruction	vehicleObstructionType	vehicleOnWrongCarriage Way
Car swerving	VehicleObstruction	vehicleObstructionType	vehicleInDifficulty
Emergency vehicle nearby	VehicleObstruction	vehicleObstructionType	emergencyVehicle
Convoy over	VehicleObstruction	vehicleObstructionType	convoy + LifeCycleManagement: over**
Slow moving maintenance vehicle	VehicleObstruction	vehicleObstructionType	slowMovingMaintenanceV ehicle
Lane control signs not operational	EquipmentOrSystemFault	equipmentOrSystemF aultType + faultyEquipmentSyste mType	notWorking + laneControlSigns
Traffic lights not functioning	EquipmentOrSystemFault	equipmentOrSystemF aultType + faultyEquipmentSyste mType	notWorking + trafficLightSets
Traffic lights operational again	EquipmentOrSystemFault	equipmentOrSystemF aultType + faultyEquipmentSyste mType	notWorking + trafficLightSets + LifeCycleManagement: over**
Variable message signs not functioning	EquipmentOrSystemFault	equipmentOrSystemF aultType + faultyEquipmentSyste mType	notWorking + variableMessageSigns
Variable message signs operational again	EquipmentOrSystemFault	equipmentOrSystemF aultType + faultyEquipmentSyste mType	notWorking + variableMessageSigns + LifeCycleManagement: over**
Lane control signs operational again	EquipmentOrSystemFault	equipmentOrSystemF aultType + faultyEquipmentSyste mType	notWorking + laneControlSigns + LifeCycleManagement: over**
Fully or partly broken down	EquipmentOrSystemFault	equipmentOrSystemF aultType +	outOfService + streetLighting

Event reason	DATEX II Situation Record type	DATEX II Supplemental Enumeration Name	DATEX II Supplemental Enumeration Value
street lighting system		faultyEquipmentSystemType	
Street lighting damaged due to accident	EquipmentOrSystemFault	equipmentOrSystemFaultType + faultyEquipmentSystemType	outOfService + streetLighting + NonManagedCause: accident
Street lighting damaged due to storm	EquipmentOrSystemFault	equipmentOrSystemFaultType + faultyEquipmentSystemType	outOfService + NonManagedCause: poorWeather
Contraflow	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	contraflow
Lane closures	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	laneClosures
Narrow lanes	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	narrowLanes
Road closed	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	roadClosed
Road closed intermittently	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	intermittentShortTermClosures
Only one lane operational. Controlled by traffic lights or flagman	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	singleAlternateLineTraffic
A new layout of	RoadOrCarriagewayOrLaneMa	roadOrCarriagewayOr	newRoadworksLayout

Event reason	DATEX II Situation Record type	DATEX II Supplemental Enumeration Name	DATEX II Supplemental Enumeration Value
lanes/carriageway	nagement	LaneManagementType	
One or more lanes temporiraly closed	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	laneClosures
One carriageway closed	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	carriagewayClosures
Abnormal layout of lanes / carriageeay	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	lanesDeviated
Road open for traffic	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	roadCleared
Bridge closed	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	roadClosed + placesAtWhichApplicable: onBridges
Road closed due bad weather	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	roadClosed + NonManagedCause: poorWeather
Weight restriction in use	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	weightRestrictionInOperation + VehicleCharacteristics: grossWeightCharacteristic
Weight restriction removed	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	WeightRestrictionInOperation +LifeCycleManagement:

Event reason	DATEX II Situation Record type	DATEX II Supplemental Enumeration Name	DATEX II Supplemental Enumeration Value
			over**
Height Restriction in use	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	heightRestrictionInOperation + VehicleCharacteristics: heightCharacteristic
Tunnel closed	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	roadClosed + placesAtWhichApplicable: inTunnels
Traffic is being held intermittently	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	intermittentShortTermClosures
Ice road open	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	useOfSpecifiedLanesOrCarriageWaysAllowed + SupplementaryPositionalDescription: onIceRoad
Ice road closed	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	roadClosed + SupplementaryPositionalDescription: onIceRoad
Width restriction in use	RoadOrCarriagewayOrLaneManagement	roadOrCarriagewayOrLaneManagementType	roadClosed + VehicleCharacteristics: widthCharacteristic
Power cables fallen to roadway	InfrasturctureDamageObstruction	infrastructureDamageType	fallenPowerCables
Damaged road surface	InfrasturctureDamageObstruction	infrastructureDamageType	damagedRoadSurface
Flood	EnvironmentalObstruction	environmentalObstructionType	flooding
Wildfire	EnvironmentalObstruction	environmentalObstructionType	grassFire
Fire	EnvironmentalObstruction	environmentalObstruc	seriousFire

Event reason	DATEX II Situation Record type	DATEX II Supplemental Enumeration Name	DATEX II Supplemental Enumeration Value
		tionType	
Fallen trees	EnvironmentalObstruction	environmentalObstructionType	fallenTrees
Landslips	EnvironmentalObstruction	environmentalObstructionType	landslips
Storm damage	EnvironmentalObstruction	environmentalObstructionType	stormDamage
Reindeer on the road	AnimalPresenceObstruction	animalPresenceType	herdOfAnimalsOnTheRoad
Elk on the road	AnimalPresenceObstruction	animalPresenceType	largeAnimalsOnTheRoad
Animals on the road	AnimalPresenceObstruction	animalPresenceType	animalsOnTheRoad
Traffic being manually directed	GeneralNetworkManagement	generalNetworkManagementType	trafficBeingManuallyDirected (+) trafficManuallyDirectedBy : policeman
Temporary traffic lights	GeneralNetworkManagement	generalNetworkManagementType	temporaryTrafficLights
Traffic held	GeneralNetworkManagement	generalNetworkManagementType	trafficHeld
Stationary traffic	AbnormalTraffic	abnormalTrafficType	stationaryTraffic
Traffic flow is of a stop and go nature	AbnormalTraffic	trafficFlowCharacteristics	stopAndGo
Slow traffic	AbnormalTraffic	abnormalTrafficType	slowTraffic
Queuing traffic	AbnormalTraffic	abnormalTrafficType	queuingTraffic
Abnormal traffic back to normal	AbnormalTraffic	trafficTrendType	trafficStable
Traffic building up	AbnormalTraffic	trafficTrendType	trafficBuildingUp
Traffic may build up	AbnormalTraffic	trafficTrendType	trafficBuildingUp + ProbabilityOfOccurence: probable
Traffic easing /	AbnormalTraffic	trafficTrendType	trafficEasing

Event reason	DATEX II Situation Record type	DATEX II Supplemental Enumeration Name	DATEX II Supplemental Enumeration Value
back to normal			
Smooth traffic flow	AbnormalTraffic	abnormalTrafficType	smoothFlow
Queuing traffic	AbnormalTraffic	abnormalTrafficType	queuingTraffic
Heavy traffic	AbnormalTraffic	abnormalTrafficType	heavyTraffic
Earlier accident	Accident	accidentType	earlierAccident
Accident involving buses	Accident	accidentType	accidentInvolvingBuses
Accident involving heavy lorries	Accident	accidentType	accidentInvolvingHeavyLorries
Accident	Accident	accidentType	accident
Accident involving multiple vehicles	Accident	accidentType	multivehicleAccident
Accident involving hazardous materials	Accident	accidentType	accidentInvolvingHazardousMaterials
Overturned heavy lorry	Accident	accidentType	overturnedHeavyLorry
Fuel on road	Accident	accidentType	fuelSpillageAccident
Vehicle off road	Accident	accidentType	vehicleOffRoad
Serious accident	Accident	accidentType	seriousAccident
Unspecified accident	Accident	accidentType	other
Initial notification about accident	GeneralObstruction	obstructionType	unprotectedAccidentArea
Rescue and recovery work at the place of accident	GeneralObstruction	obstructionType	rescueAndRecoveryWork
Rescue and recovery work done. Traffic	GeneralObstruction	obstructionType	rescueAndRecoveryWork + LifeCycleManagement:

Event reason	DATEX II Situation Record type	DATEX II Supplemental Enumeration Name	DATEX II Supplemental Enumeration Value
normal			over**
Truck lifting in operation	GeneralObstruction	obstructionType	clearanceWork
Unknown obstruction on the road	GeneralObstruction	obstructionType	obstructionOnTheRoad
Potentially dangerous obstruction on the road	GeneralObstruction	obstructionType	objectOnTheRoad
Shed load	GeneralObstruction	obstructionType	shedLoad
Spillage from moving vehicle	GeneralObstruction	obstructionType	spillageOccurringFromMovingVehicle
Frost damage on roadway	GeneralObstruction	obstructionType	severeFrostDamagedRoadway
Rescue and recovery rehearsal	GeneralObstruction	obstructionType	rescueAndRecoveryWork
Rescue and recovery rehearsal over	GeneralObstruction	obstructionType	rescueAndRecoveryWork + LifeCycleManagement: over**
Snow or ice debris	GeneralObstruction	obstructionType	snowAndIceDebris
Demolitionwork	ConstructionWorks	constructionWorkType	demolitionWork
Bridge construction work	ConstructionWorks	constructionWorkType	constructionWork + SubjectTypeOfWorks: bridge
Construction or maintenance of road	ConstructionWorks	constructionWorkType	roadImprovementOrUpgrading + SubjectTypeOfWorks: road
Improvement work for a junction	ConstructionWorks	constructionWorkType	roadImprovementOrUpgrading + SubjectTypeOfWorks: junction
Construction of safety fence	ConstructionWorks	constructionWorkType	constructionWork + SubjectTypeOfWorks:

Event reason	DATEX II Situation Record type	DATEX II Supplemental Enumeration Name	DATEX II Supplemental Enumeration Value
			roadsideEquipment
Situation over**	GeneralInstructionOrMessageToRoadUsers	generalInstructionToRoadUsersType	other + LifeCycleManagement → end == true

* Any of the non weather related conditions -typed situation records may contain additional element defining the driving conditions.

** Few special cases stating that some activity of the situation has ended are delivered with additional LifeCycleManagement -element containing information that situation is over. Note that this behaviour will most likely change in the future.

3.2.7. {D2_SITUATION_RECORD_CREATION_TIME}

The time when this event was stored into Infotripla's systems.

3.2.8. {D2_SITUATION_RECORD_VERSION_TIME}

The time when this event was handled in Infotripla's system

3.2.9. {D2_SITUATION_RECORD_FIRST_SUPPLIER_TIME}

The time when this information was originally discovered.

3.2.10. {D2_SITUATION_RECORD_RECORD_PROB}

Three different possible values (riskOf, certain, probable).

3.2.11. {D2_SOURCE_ID}

Identifier of the organization that originally provided the information.

3.2.12. {D2_SOURCE_NAME}

Full name of the organization that is responsible for validity of the information.

3.2.13. {D2_OVERALL_START_TIME}

Timestamp representing the moment of when the situation started.

3.2.14. {D2_OVERALL_END_TIME}

Timestamp representing the moment when the situation is over. In many cases this is never really delivered due to nature of the snapshot exchange method. (the end time for a situation cannot be always seen beforehand and is therefore excluded. Also, situations that are over are normally removed from the publication.

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3.2.15. {D2_IMPACT_DELAY}

This section might be missing if the impact on travel time delay is not known. Sometimes the impact on travel times is known and this section is populated. The time band within which the additional travel time due to adverse travel conditions of any kind falls, when compared to "normal conditions" can have six different values *(upToTenMinutes, betweenTenMinutesAndThirtyMinutes, betweenThirtyMinutesAndOneHour, betweenOneHourAndThreeHours, betweenThreeHoursAndSixHours, longerThanSixHours)*

3.2.16. {D2_COMMENT_LANGUAGE}

Language code for the comment.

3.2.17. {D2_COMMENT_VALUE}

The actual content of the comment. There might be same comments attached to each situation record within a situation. This will be improved when switching to newer DATEX II schema.

3.2.18. {D2_COMMENT_TYPE}

Three values are currently used here (*locationDescriptor, dataProcessingNote, other*). Human readable description of the situation is delivered as a dataProcessingNote. Note that this may contain information about the situation in general, not just about this particular situation record.

Comment with the type *locationDescriptor* contains human readable description of the situation record's location.

Comment with the type *other* contains human readable description of the time window for the event. Generally the {D2_OVERALL_START_TIME} and {D2_OVERALL_END_TIME} provides this information but sometimes this comment has additional details.

3.2.19. {D2_GROUP_OF_LOCATIONS}

Infotripla supports location delivery using either Alert C location referencing system or with the coordinates complying to WGS84 standard. Location referencing of Datex II is well documented in DATEX II V2.0 USER GUIDE Document version: 1.1 available at http://www.datex2.eu/content/datex-ii-v20-user-guide-v11-and-developer-guide-v11.

3.2.20. {D2_SITUATION_RECORD_CONTENT}

This part is depending on {D2_SITUATION_RECORD_TYPE} (see 3.2.6) and is documented there in the last two columns of the mapping table.

4. Help and Assistance

Infotripla will provide help and technical support to anyone wishing to use the data services. Should there be any special needs like customizing the feeds to match your requirements, we encourage to discuss with us before rushing the development on top of the standard feeds. Also, any feedback for improving this documentation is welcome. Infotripla customer service can be contacted from: www.infotripla.fi/helpdesk