Fillmore

Message exchange

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Cancellation (request, confirmation, rejection)
Notification (allocation, dispatch, pick-up, drop-off)

Document information

Revisions

Date	Version	Description	Modified by
11 Jan. 2013	0.1	Early Draft	KM
6 Mar. 2013	0.5	Draft	KM,

			A N

Distribution list

Name	Role

Distribution restrictions

No restrictions	
Project internal	
According to distribution list	

Introduction

Scope

Fillmore aims to share travelers between traveler operators and transport operators. This document specifies the message exchange between the different operators.

Audience

Architects, designers and developers.

Definitions

Term	Description

Client	An individual, business or organization acting as travel-agent or transport-carrier.
Travel-agent (TA)	An individual, business or organization demanding transport for passengers or goods.
Transport-carrier (TC)	An individual, business or organization engaged in transporting passengers or goods.
Goods	Possessions and personal property.
Modes	Transport modes. Foot, Bike, Car, Bus, Rail, Sea, Taxi
Transport	A vehicle used to transport passengers or goods.
Traveler	One that goes on a trip or journey.
Passenger-agent	*See Travel-agent.*
Goods-agent	*See Travel-agent.*
Request	
Response	
Notification	

Overall Description

Messages

Request-Response Messages

Requests and corresponding responses.

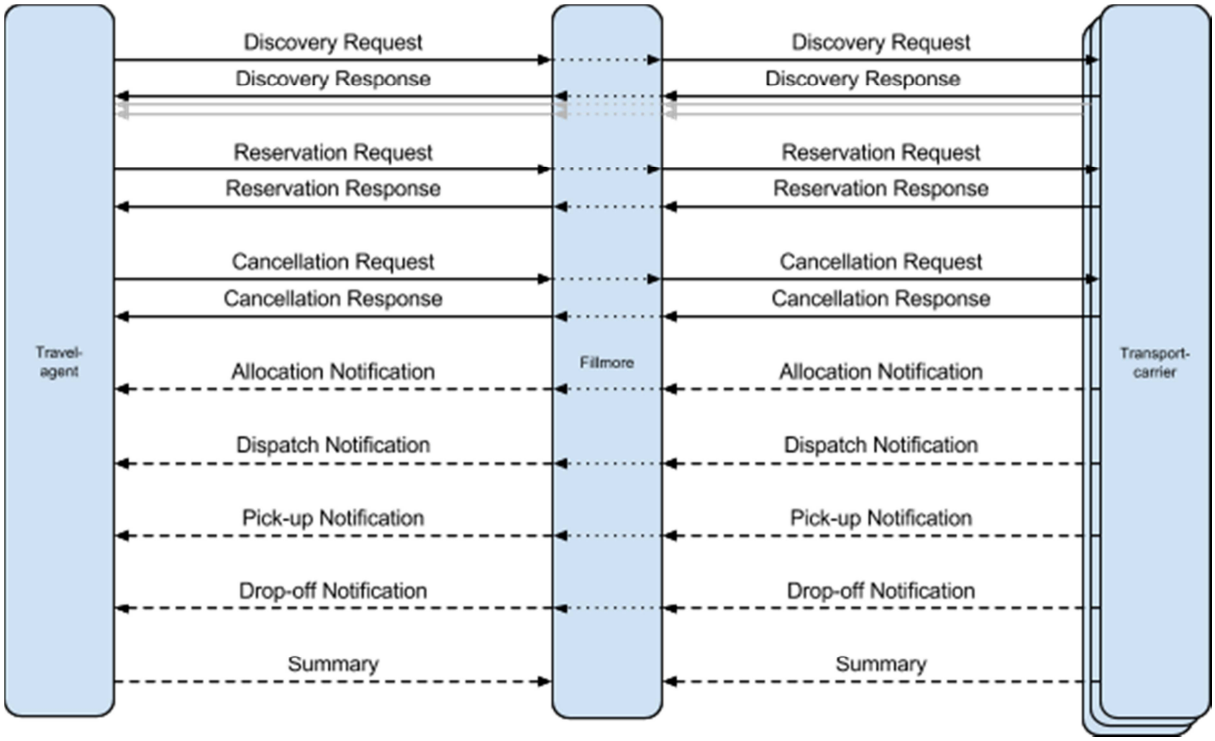
Request-response	Description
Availability	A travel-agent's request for available transport-carriers and transport.

Reservation	A travel-agent's request for reservation of available transport.
Cancellation	A travel-agent's request reservation cancellation.

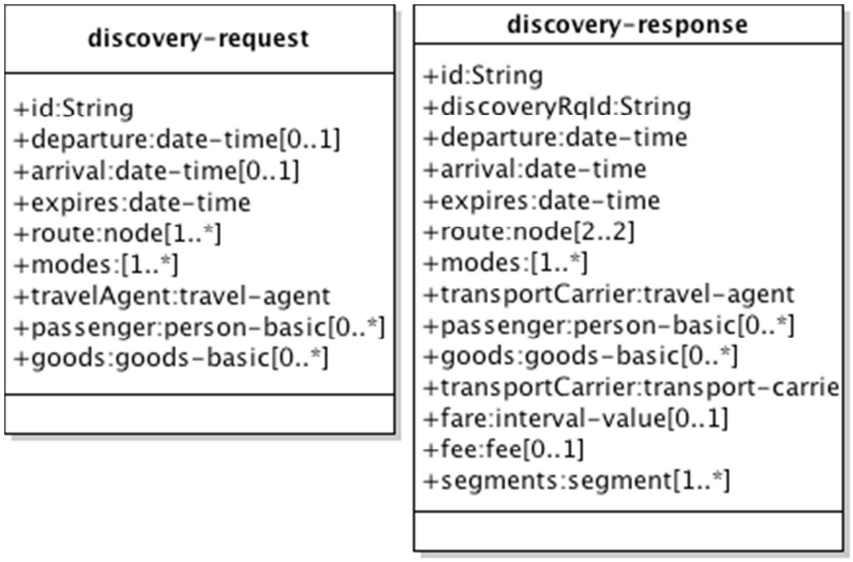
Notification Messages

Notification	Description
Allocation	A transport-carrier allocating a Transport to a reservation.
Retrieval	A transport is on its way to retrieve reservation passengers or goods.

Message Flow



Discovery



Discovery Request

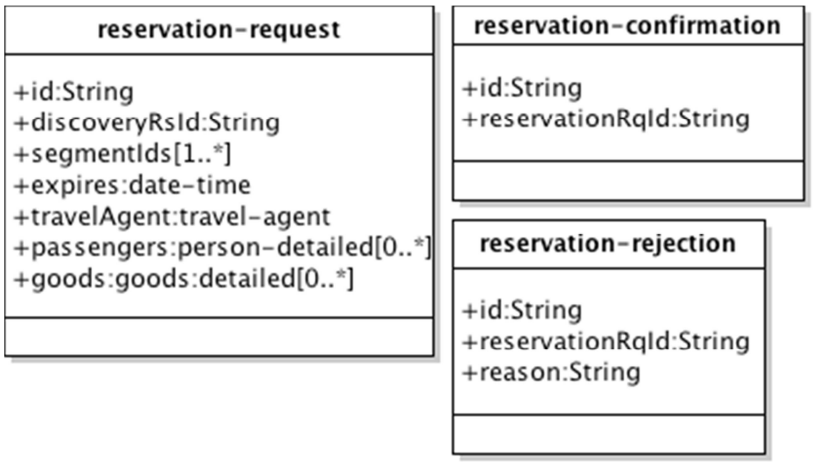
- Id
- Departure
- Arrival
- Expires
- Route
- Modes
- Travel-agent
- Passengers
- Goods

Discovery Response

- Id
- Departure
- Arrival
- Expires
- Route
- Modes
- Transport-carrier
- Passengers
- Goods
- Fare

- Fee
- Segments

Reservation



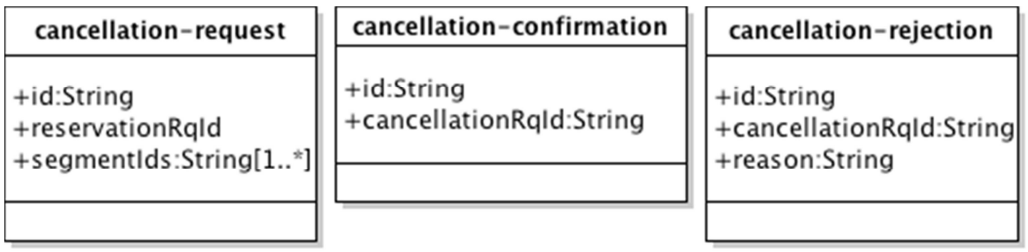
Reservation Request

- Id
- Discovery response id
- Segment id(s)
- Expires
- Travel-agent
- Passengers
- Goods

Reservation Response

Confirmation • Id • Reservation request id	Rejection • Id • Reservation request id • Reason

Cancellation



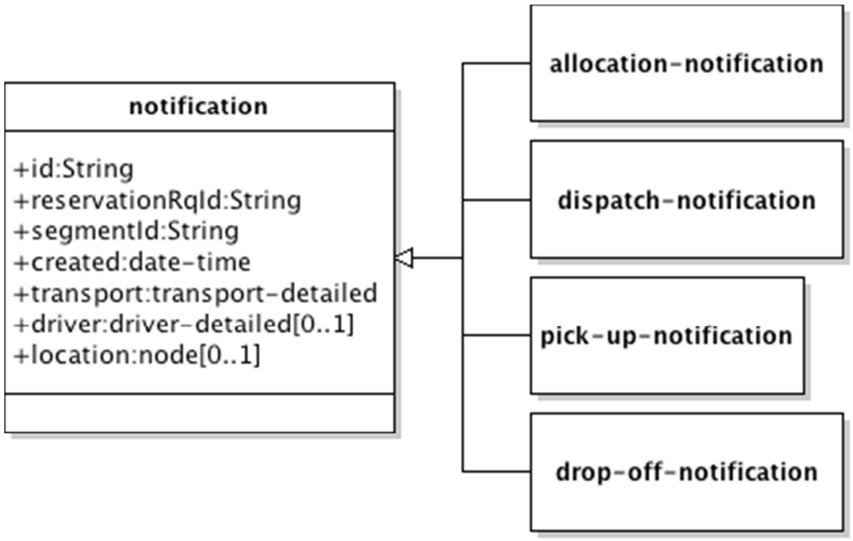
Cancellation Request

- Id
- Reservation request id
- Segment id(s)

Cancellation Response

Confirmation	Rejection
• Id • Cancellation request id	• Id • Cancellation request id • Reason

Notification



Allocation, Dispatch, Pick-up and Drop-off Notification

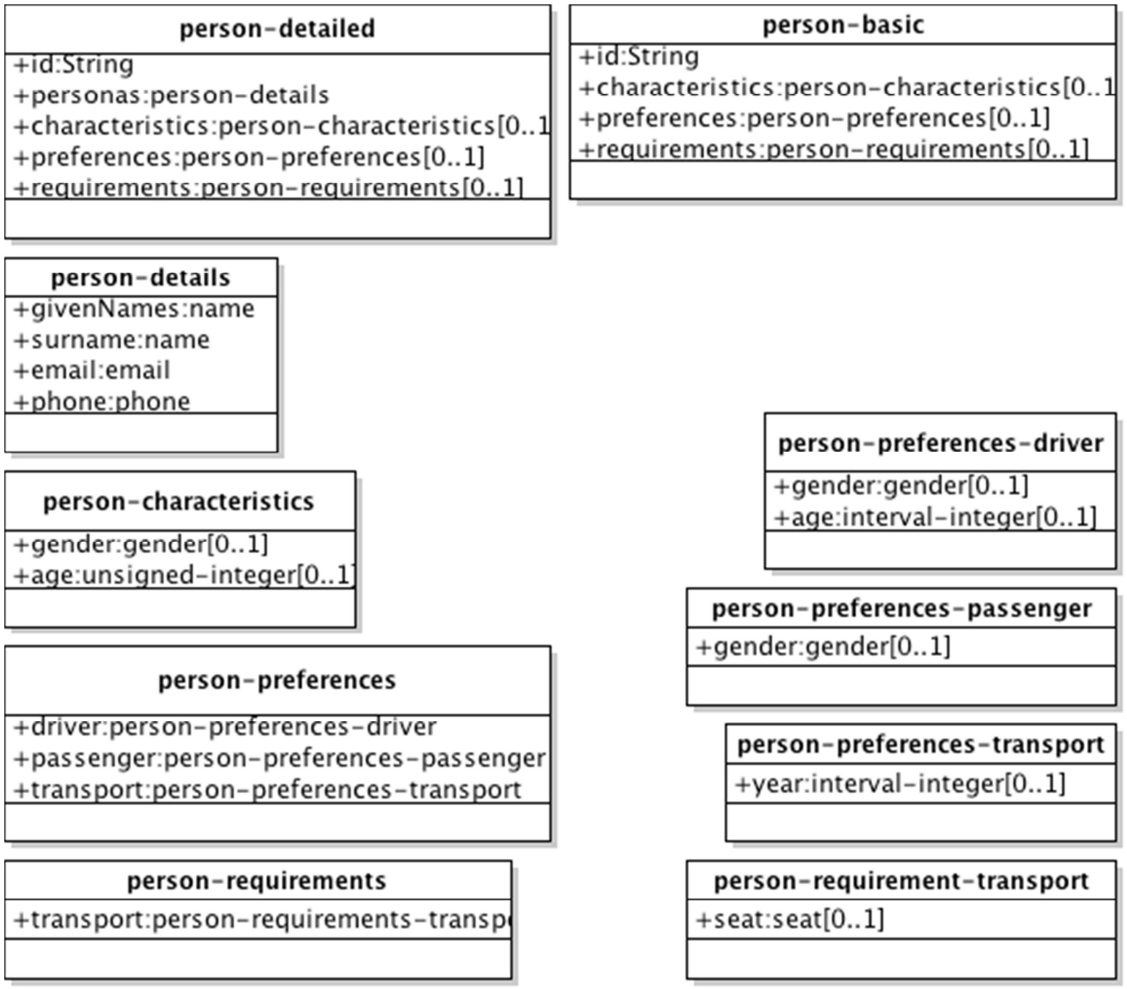
- Id
- Reservation request id
- Segment id
- Created
- Transport
- Driver
- Location

Summary

- Id
- Reservation request id
- Departure
- Arrival
- Route
- Segment id(s)?

Class Diagrams

Person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+personas:person-details
+characteristics:person-characteristics[0..1
+preferences:person-preferences[0..1]
+requirements:person-requirements[0..1]
person-basic
+id:String
+characteristics:person-characteristics[0..1
+preferences:person-preferences[0..1]
+requirements:person-requirements[0..1]
person-details
+givenNames:name
+surname:name
+email:email
+phone:phone
person-characteristics
+gender:gender[0..1]
+age:unsigned-integer[0..1]
person-preferences
+driver:person-preferences-driver
+passenger:person-preferences-passenger
+transport:person-preferences-transport
person-requirements
+transport:person-requirements-transp
person-preferences-driver
+gender:gender[0..1]
+age:interval-integer[0..1]
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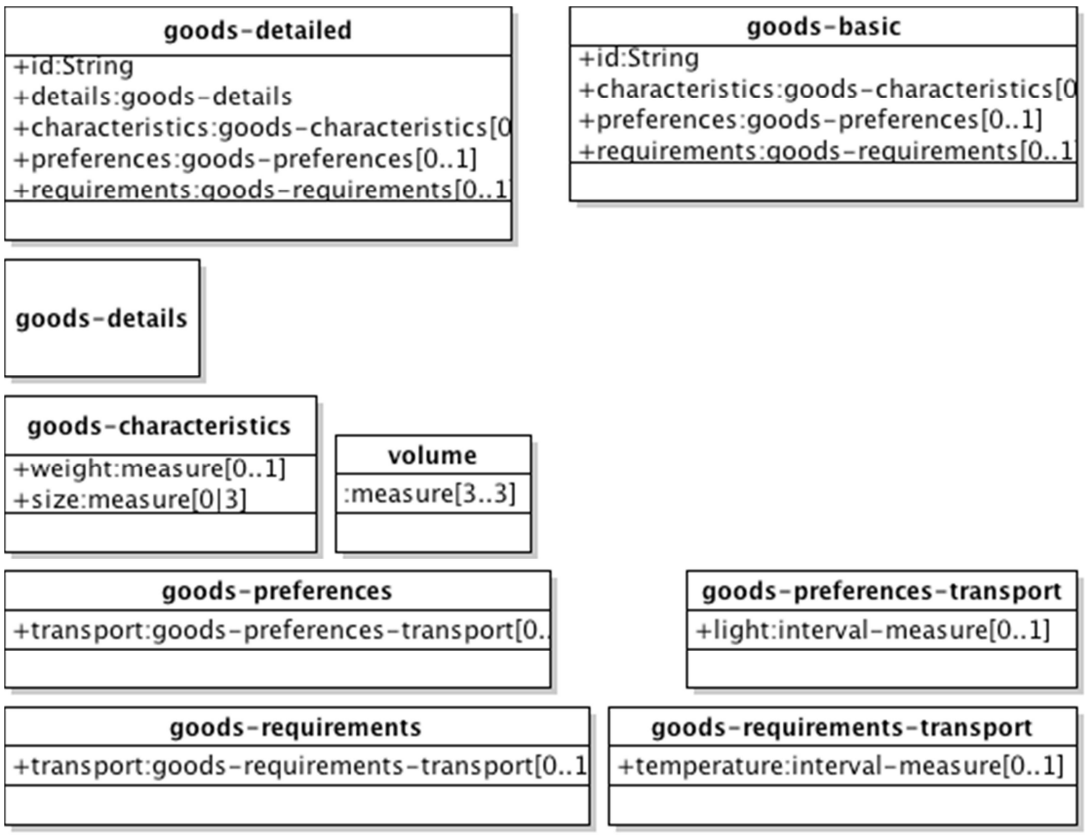
+seat:seat[0..1]

Goods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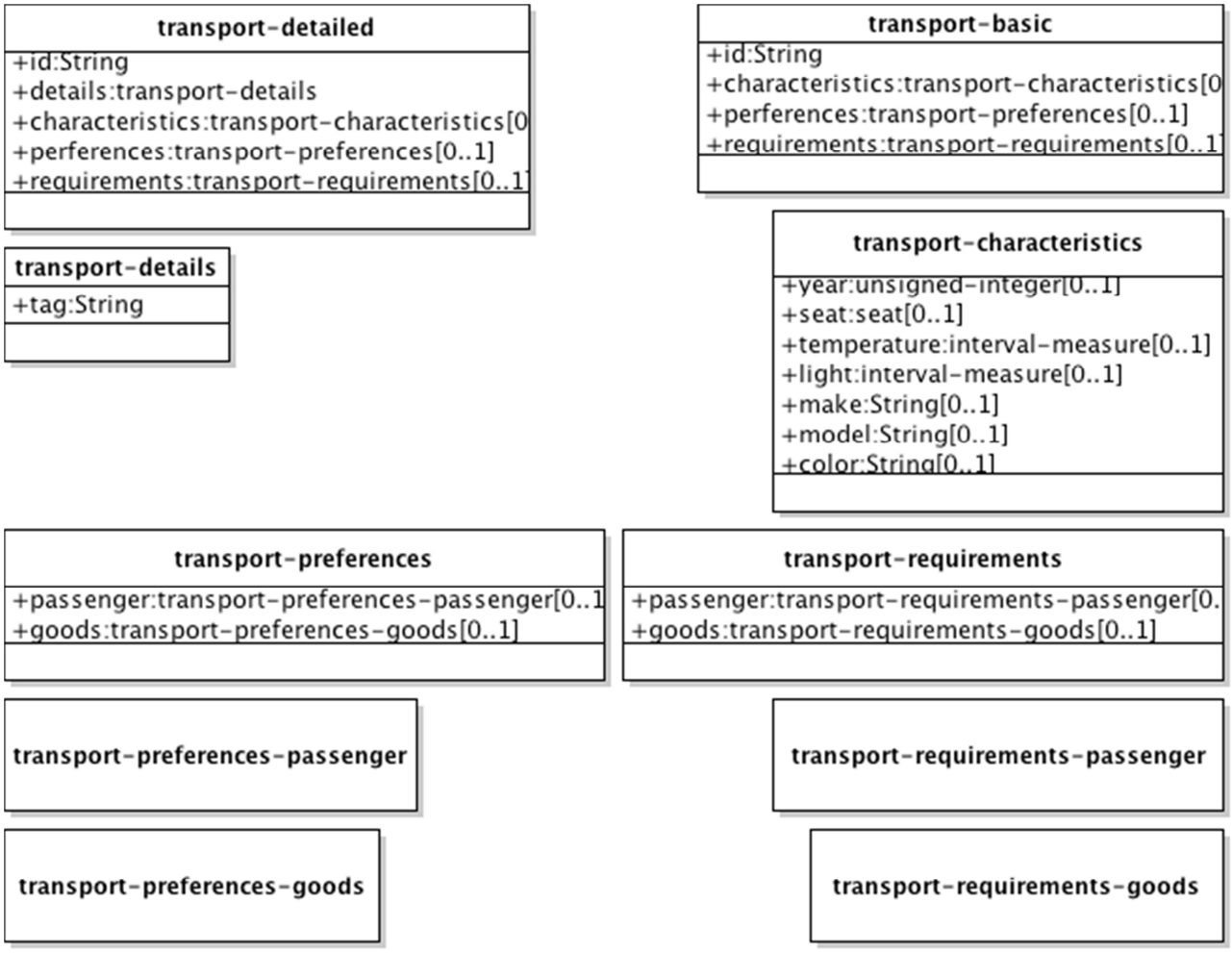
goods-basic
+id:String
+characteristics:goods-characteristics[0
+preferences:goods-preferences[0..1]
+requirements:goods-requirements[0..1
goods-details
goods-characteristics
+weight:measure[0..1]
+size:measure[0|3]
volume
:measure[3..3]
goods-preferences
+transport:goods-preferences-transport[0..
goods-preferences-transport
+light:interval-measure[0..1]
goods-requirements
+transport:goods-requirements-transport[0..1
goods-requirements-transport
+temperature:interval-measure[0..1]

Transport


transport-detailed
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transport-characteristics
+year:unsigned-integer[0..1]
+seat:seat[0..1]
+temperature:interval-measure[0..1]
+light:interval-measure[0..1]
+make:String[0..1]
+model:String[0..1]
+color:String[0..1]
transport-preferences
+passenger:transport-preferences-passenger[0..1
+goods:transport-preferences-goods[0..1]
transport-requirements
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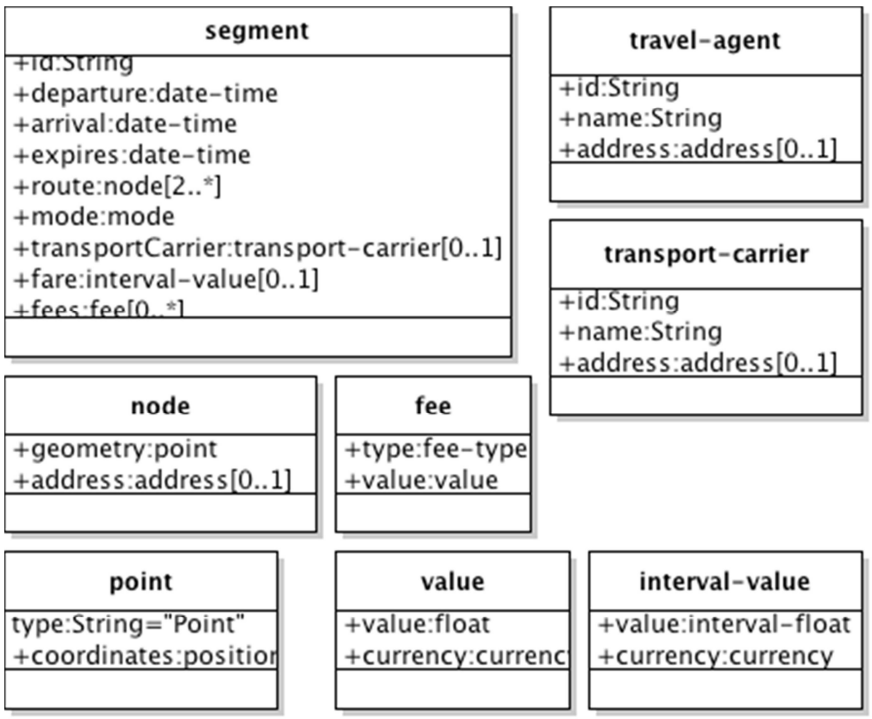
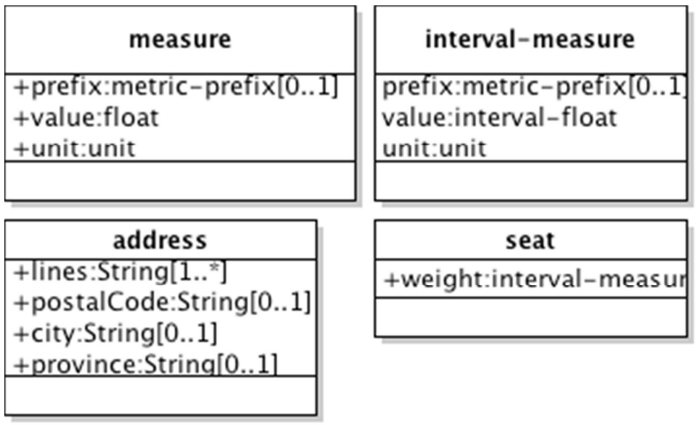
+goods:transport-requirements-goods[0..1]
transport-preferences-passenger
transport-requirements-passenger
transport-preferences-goods
transport-requirements-goods

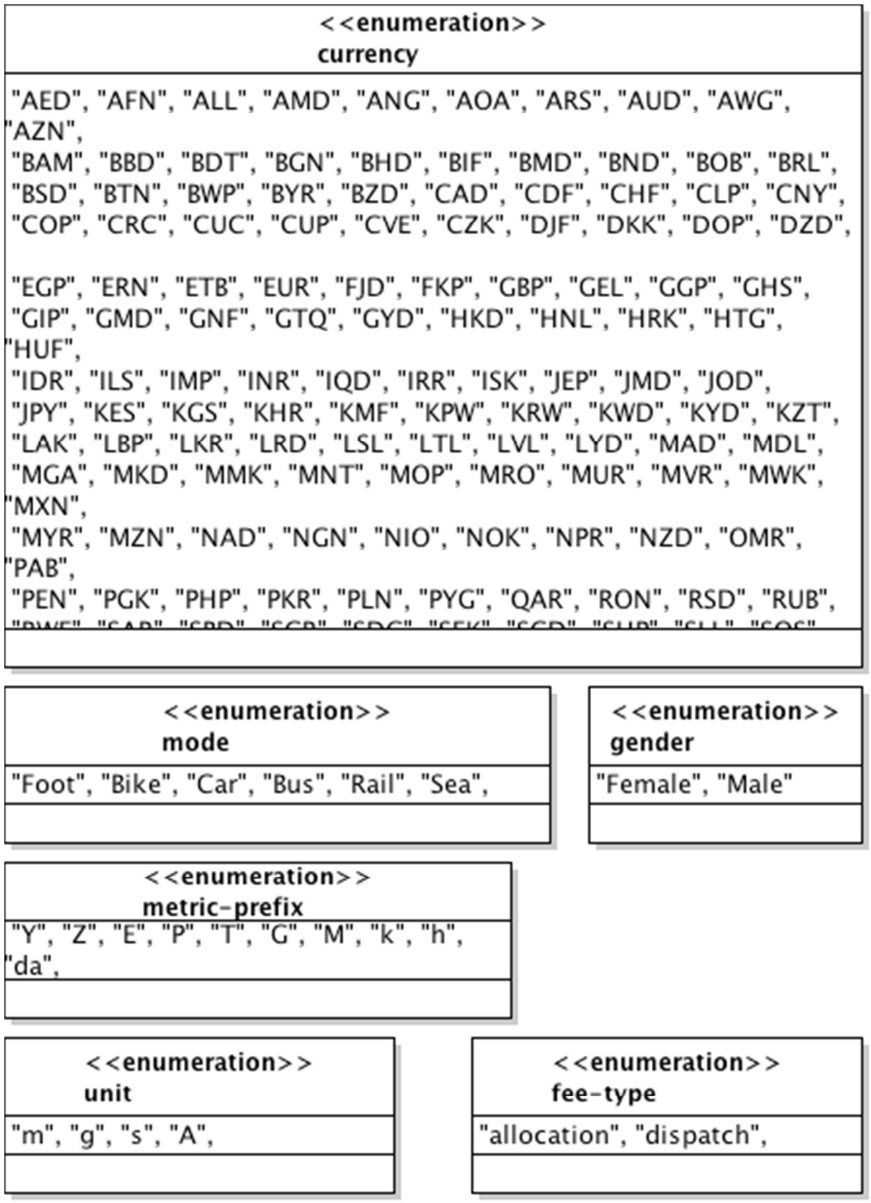
Classes



Simple classes



Enumerations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"EGP", "ERN", "ETB", "EUR", "FJD", "FKP", "GBP", "GEL", "GGP", "GHS",
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"JPY", "KES", "KGS", "KHR", "KMF", "KPW", "KRW", "KWD", "KYD", "KZT",
"LAK", "LBP", "LKR", "LRD", "LSL", "LTL", "LVL", "LYD", "MAD", "MDL",
"MGA", "MKD", "MMK", "MNT", "MOP", "MRO", "MUR", "MVR", "MWK",
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"m", "g", "s", "A",
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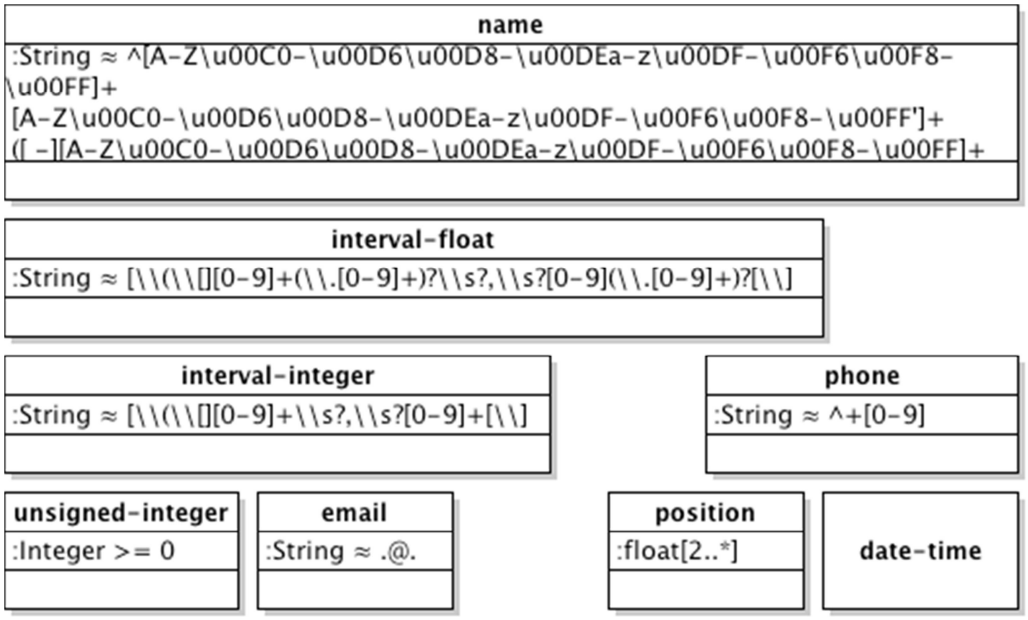
Types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([-][A-Z\u00C0-\u00D6\u00D8-\u00DEa-z\u00DF-\u00F6\u00F8-\u00FF]+
interval-float
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interval-integer
:String ≈ [\\(\\[][0-9]+\\s?,\\s?[0-9]+[\\]
phone
:String ≈ ^+[0-9]
unsigned-integer
:Integer >= 0
email
:String ≈ .@.
position
:float[2..*]
date-time