# INRIX Client Library v1.0

by INRIX, Inc.

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# Package com.inrix.sdk

# com.inrix.sdk Class AlertsManager

#### **All Implemented Interfaces:**

**IRefreshableActions** 

public class **AlertsManager** extends java.lang.Object implements **IRefreshableActions** 

# Fields

## SMART\_ALERT\_INTERVAL

private static final int SMART\_ALERT\_INTERVAL

Constant value: 30

## Constructors

## AlertsManager

public AlertsManager()

## Methods

## getRefreshInterval

public int getRefreshInterval(AlertsManager.ACTIONS action)

Return the preferred refresh interval for an action

#### **Parameters:**

action - - refresh action

#### **Returns:**

preferred refresh interval (in seconds)

#### createIncidentAlert

public final IncidentAlert createIncidentAlert(AlertsManager.IIncidentsAlertListener
listener,

<u>AlertsManager.IncidentAlertOptions</u> alertParams)

throws InrixException

createAlert

#### **Parameters:**

listener - - response listener alertParams - - alert params

#### **Returns:**

# com.inrix.sdk Class AlertsManager.ACTIONS

#### **All Implemented Interfaces:**

java.io.Serializable, java.lang.Comparable

public static final class **AlertsManager.ACTIONS** extends java.lang.Enum

# Fields

## SMART\_ALERT

public static final com.inrix.sdk.AlertsManager.ACTIONS SMART\_ALERT

## Constructors

## AlertsManager.ACTIONS

private AlertsManager.ACTIONS()

# Methods

#### values

public static AlertsManager.ACTIONS[] values()

#### valueOf

public static AlertsManager.ACTIONS valueOf(java.lang.String name)

# com.inrix.sdk Interface AlertsManager.IIncidentsAlertListener

**All Superinterfaces:** 

IData Response Listener

 $public interface \ {\bf AlertsManager. IIncidentsAlertListener} \\ extends \ {\bf IDataResponseListener} \\$ 

Incidents result listener.

# com.inrix.sdk Interface AlertsManager.IFilter

public interface **AlertsManager.IFilter** extends

# Methods

## isItemAllowed

public boolean isItemAllowed(java.lang.Object item)

# com.inrix.sdk Class AlertsManager.IncidentAlertOptions

public static class **AlertsManager.IncidentAlertOptions** extends java.lang.Object

## **Fields**

#### alertInterval

private int alertInterval

Interval in seconds

## speedFactor

private float speedFactor

#### filter

private com.inrix.sdk.AlertsManager.IFilter filter

## Constructors

## AlertsManager.IncidentAlertOptions

Init options

#### **Parameters:**

alertInterval - - in seconds
filter - - filter to filter out incidents

## Methods

#### setSpeedFactor

public void setSpeedFactor(float speedFactor)

Set speed factor. This value is used to dynamically determine incident distance depending on current speed. So for instance if speed factor is set to 10, and current speed is 60mph, we are going to request incident in 6 miles radius (60mph / 10 = 6). Higher speed - bigger radius to request incidents

#### **Parameters:**

 ${\tt speedFactor}$  - . Should be  ${\tt >}$  0. Default value is 10

# getSpeedFactor

float getSpeedFactor()

## setFilter

```
public void setFilter(AlertsManager.IFilter filter)
```

Set filter to filter out incidents

#### **Parameters:**

filter

## getFilter

AlertsManager.IFilter getFilter()

#### setInterval

public void setInterval(int seconds)

Set desired notification interval in seconds

#### **Parameters:**

seconds

# getInterval

int getInterval()

# com.inrix.sdk Class Error

public class **Error** extends java.lang.Object

Error describes failure reason and type.

# Fields

# causeMessage

private java.lang.String causeMessage

#### errorId

private int errorId

## type

private com.inrix.sdk.Error.Type type

# Constructors

#### **Error**

```
public Error(VolleyError cause)
```

Instantiates a new error, using catch'd exception as source of information

#### **Parameters:**

cause - the cause

# Methods

# getErrorType

```
public Error.Type getErrorType()
```

Gets the error type.

#### **Returns:**

the error type

# ${\bf getErrorId}$

public int getErrorId()

Gets the error id.

#### **Returns:**

the error id

# getErrorMessage

public java.lang.String getErrorMessage()

Gets the error message.

#### **Returns:**

the error message

# toString

public java.lang.String toString()

# com.inrix.sdk Class Error.Type

**All Implemented Interfaces:** 

java.io.Serializable, java.lang.Comparable

public static final class **Error.Type** extends java.lang.Enum

The Enumeration Type, describes error type.

# **Fields**

#### NetworkError

public static final com.inrix.sdk.Error.Type NetworkError

#### **SDKError**

public static final com.inrix.sdk.Error.Type SDKError

#### ServerError

public static final com.inrix.sdk.Error.Type ServerError

## Constructors

## **Error.Type**

private Error.Type()

# Methods

#### values

public static Error.Type[] values()

# valueOf

public static Error.Type valueOf(java.lang.String name)

# com.inrix.sdk Class GasStationManager

**All Implemented Interfaces:** 

**IRefreshableActions** 

public class **GasStationManager** extends java.lang.Object implements **IRefreshableActions** 

Class to get the gas stations

## **Fields**

## **GET\_GASSTATIONS\_INTERVAL**

private static final int GET\_GASSTATIONS\_INTERVAL

Constant value: 180

## GET\_GASSTATION\_INFORMATION\_INTERVAL

private static final int GET GASSTATION INFORMATION INTERVAL

Constant value: 600

#### Constructors

## GasStationManager

public GasStationManager()

# Methods

## getRefreshInterval

public int getRefreshInterval(GasStationManager.ACTIONS action)

Return the preferred refresh interval for an action

**Parameters:** 

action - - refresh action

**Returns:** 

preferred refresh interval (in seconds)

## getGasStationsInRadius

 $\begin{array}{ccc} \text{public final } & \text{ICancellable} \\ & \textbf{getGasStationsInRadius}(& \text{GasStationManager.GasStationsRadiusOptions}) \\ & & \text{GasStationManager.IGasStationResponseListener} \\ & \text{throws } & \text{InrixException} \\ \end{array} \\ \end{array} \\ \text{requestParameters,} \\ \\ \begin{array}{ccc} & \text{Total Content of the problem of$ 

Retrieves gas stations around location in radius.

#### **Parameters:**

listener - Result listener. requestParameters

#### **Returns:**

the Request object

## getGasStationsInBox

public final ICancellable getGasStationsInBox(GasStationManager.GasStationsBoxOptions
requestParameters,

GasStationManager.IGasStationResponseListener listener)
throws InrixException

## getGasStationInformation

# com.inrix.sdk Class GasStationManager.ACTIONS

#### **All Implemented Interfaces:**

java.io.Serializable, java.lang.Comparable

public static final class **GasStationManager.ACTIONS** extends java.lang.Enum

## Fields

## **GET\_GASSTATIONS**

public static final com.inrix.sdk.GasStationManager.ACTIONS GET\_GASSTATIONS

#### **GET\_GASSTATION\_INFORMATION**

public static final com.inrix.sdk.GasStationManager.ACTIONS GET\_GASSTATION\_INFORMATION

## Constructors

#### **GasStationManager.ACTIONS**

private GasStationManager.ACTIONS()

# Methods

#### values

public static GasStationManager.ACTIONS[] values()

#### valueOf

public static GasStationManager.ACTIONS valueOf(java.lang.String name)

# com.inrix.sdk Interface GasStationManager.IGasStationResponseListener

**All Superinterfaces:** 

IDataResponseListener

 $public\ interface\ \textbf{GasStationManager.IGasStationResponseListener}$   $extends\ IDataResponseListener$ 

Gas Stations result listener.

# com.inrix.sdk Interface GasStationManager.ISingleGasStationResponseListener

**All Superinterfaces:** 

IDataResponseListener

 $public\ interface\ \textbf{GasStationManager.ISingleGasStationResponseListener}$   $extends\ IDataResponseListener$ 

# com.inrix.sdk ${\bf Class\ Gas Station Manager. Gas Stations Options}$

java.lang.Object

+-com.inrix.sdk.GasStationManager.GasStationsOptions

#### **Direct Known Subclasses:**

SingleGasStationOptions, GasStationsBoxOptions, GasStationsRadiusOptions

public static class GasStationManager.GasStationsOptions extends java.lang.Object

## **Fields**

## OUTPUT\_FIELDS\_ALL

public static final int OUTPUT\_FIELDS\_ALL

All the fields

Constant value: 65535

#### **OUTPUT FIELDS BRAND**

public static final int OUTPUT\_FIELDS\_BRAND

gas station name or brand Constant value: 1

## **OUTPUT\_FIELDS\_LOCATION**

public static final int OUTPUT\_FIELDS\_LOCATION

the latitude and longitude of the gas station

Constant value: 2

#### **OUTPUT FIELDS ADDRESS**

public static final int OUTPUT FIELDS ADDRESS

the address of the gas station Constant value: 4

#### **OUTPUT FIELDS PRODUCTS**

public static final int OUTPUT\_FIELDS\_PRODUCTS

Products sold in the gas station

Constant value: 8

#### OUTPUT\_FIELDS\_CURRENCY\_CODE

public static final int OUTPUT\_FIELDS\_CURRENCY\_CODE

billing currency code Constant value: **16** 

## OUTPUT\_FIELD\_STRING\_ALL

private static final java.lang.String OUTPUT\_FIELD\_STRING\_ALL

Constant value: All

#### OUTPUT\_FIELD\_STRING\_BRAND

private static final java.lang.String OUTPUT\_FIELD\_STRING\_BRAND

Constant value: Brand

## OUTPUT\_FIELD\_STRING\_LOCATION

private static final java.lang.String OUTPUT\_FIELD\_STRING\_LOCATION

Constant value: LatLong

#### **OUTPUT FIELD STRING ADDRESS**

private static final java.lang.String OUTPUT\_FIELD\_STRING\_ADDRESS

Constant value: Address

#### OUTPUT\_FIELD\_STRING\_PRODUCTS

private static final java.lang.String OUTPUT\_FIELD\_STRING\_PRODUCTS

Constant value: Products

#### OUTPUT\_FIELD\_STRING\_CURRENCY\_CODE

private static final java.lang.String OUTPUT\_FIELD\_STRING\_CURRENCY\_CODE

Constant value: CurrencyCode

#### PRODUCT\_TYPE\_ALL

public static final int PRODUCT\_TYPE\_ALL

All types of fuels Constant value: 65535

## PRODUCT\_TYPE\_BIODIESEL

public static final int PRODUCT\_TYPE\_BIODIESEL

A fuel used in diesel engines, and made of vegetable oil or animal fat Constant value: 1

## PRODUCT\_TYPE\_DIESEL

public static final int PRODUCT TYPE DIESEL

Diesel fuel Constant value: 2

## PRODUCT\_TYPE\_DIESEL\_PLUS

public static final int PRODUCT\_TYPE\_DIESEL\_PLUS

A diesel fuel with special additives to improve performance Constant value:  ${\bf 4}$ 

#### PRODUCT\_TYPE\_DIESEL\_TRUCK

public static final int PRODUCT\_TYPE\_DIESEL\_TRUCK

A diesel fuel used by trucks Constant value: 8

## PRODUCT\_TYPE\_LPG

public static final int PRODUCT\_TYPE\_LPG

LPG (liquid petroleum gas, usually propane, also called Autogas) Constant value: **16** 

## PRODUCT\_TYPE\_METHANE

public static final int PRODUCT\_TYPE\_METHANE

Natural gas (also called Compressed Natural Gas, or CNG) Constant value: **32** 

## PRODUCT\_TYPE\_GASOLINE\_REGULAR

public static final int PRODUCT\_TYPE\_GASOLINE\_REGULAR

Regular grade gasoline Constant value: **64** 

#### PRODUCT\_TYPE\_GASOLINE\_MIDGRADE

public static final int PRODUCT\_TYPE\_GASOLINE\_MIDGRADE

Middle grade gasoline Constant value: **128** 

## PRODUCT\_TYPE\_GASOLINE\_PREMIUM

public static final int PRODUCT TYPE GASOLINE PREMIUM

Premium grade gasoline Constant value: **256** 

#### PRODUCT TYPE GASOLINE E85

public static final int PRODUCT\_TYPE\_GASOLINE\_E85

E85 Ethanol/gasoline mixture Constant value: **512** 

## PRODUCT\_TYPE\_GASOLINE\_NORMAL

public static final int PRODUCT\_TYPE\_GASOLINE\_NORMAL

Leaded gasoline Constant value: **1024** 

#### PRODUCT\_TYPE\_GASOLINE\_SP92

public static final int PRODUCT\_TYPE\_GASOLINE\_SP92

Unleaded gasoline, with a 92 octane rating

Constant value: 2048

#### PRODUCT TYPE GASOLINE SP95

public static final int PRODUCT\_TYPE\_GASOLINE\_SP95

Unleaded gasoline, with a 95 octane rating

Constant value: 4096

## PRODUCT\_TYPE\_GASOLINE\_SP95\_E10

public static final int PRODUCT\_TYPE\_GASOLINE\_SP95\_E10

Unleaded gasoline, with a 95 octane rating and 10% ethanol

Constant value: 8192

#### PRODUCT\_TYPE\_GASOLINE\_SP98

public static final int PRODUCT\_TYPE\_GASOLINE\_SP98

Unleaded gasoline, with a 98 octane rating

Constant value: 16384

#### PRODUCT TYPE STRING BIODIESEL

private static final java.lang.String PRODUCT\_TYPE\_STRING\_BIODIESEL

Constant value: biodiesel

#### PRODUCT\_TYPE\_STRING\_DIESEL

private static final java.lang.String PRODUCT\_TYPE\_STRING\_DIESEL

Constant value: Diesel

#### PRODUCT\_TYPE\_STRING\_DIESEL\_PLUS

private static final java.lang.String PRODUCT\_TYPE\_STRING\_DIESEL\_PLUS

Constant value: Dieselplus

#### PRODUCT\_TYPE\_STRING\_DIESEL\_TRUCK

private static final java.lang.String PRODUCT\_TYPE\_STRING\_DIESEL\_TRUCK

Constant value: truckdiesel

#### PRODUCT TYPE STRING LPG

private static final java.lang.String PRODUCT\_TYPE\_STRING\_LPG

Constant value: LPG

## PRODUCT\_TYPE\_STRING\_METHANE

private static final java.lang.String PRODUCT\_TYPE\_STRING\_METHANE

Constant value: methane

#### PRODUCT\_TYPE\_STRING\_GASOLINE\_REGULAR

private static final java.lang.String PRODUCT\_TYPE\_STRING\_GASOLINE\_REGULAR

Constant value: Regular

## PRODUCT\_TYPE\_STRING\_GASOLINE\_MIDGRADE

private static final java.lang.String PRODUCT\_TYPE\_STRING\_GASOLINE\_MIDGRADE

Constant value: MidGrade

#### PRODUCT\_TYPE\_STRING\_GASOLINE\_PREMIUM

private static final java.lang.String PRODUCT\_TYPE\_STRING\_GASOLINE\_PREMIUM

Constant value: Premium

#### PRODUCT\_TYPE\_STRING\_GASOLINE\_E85

private static final java.lang.String PRODUCT\_TYPE\_STRING\_GASOLINE\_E85

Constant value: E85

#### PRODUCT\_TYPE\_STRING\_GASOLINE\_NORMAL

private static final java.lang.String PRODUCT\_TYPE\_STRING\_GASOLINE\_NORMAL

Constant value: normal

## PRODUCT\_TYPE\_STRING\_GASOLINE\_SP92

private static final java.lang.String PRODUCT\_TYPE\_STRING\_GASOLINE\_SP92

Constant value: SP92

#### PRODUCT\_TYPE\_STRING\_GASOLINE\_SP95

private static final java.lang.String PRODUCT\_TYPE\_STRING\_GASOLINE\_SP95

Constant value: SP95

#### PRODUCT\_TYPE\_STRING\_GASOLINE\_SP95\_E10

private static final java.lang.String PRODUCT\_TYPE\_STRING\_GASOLINE\_SP95\_E10

Constant value: SP95-E10

#### PRODUCT TYPE STRING GASOLINE SP98

private static final java.lang.String PRODUCT\_TYPE\_STRING\_GASOLINE\_SP98

Constant value: SP98

#### outputFields

private int outputFields

Output fields requested in this request

#### productTypes

private int productTypes

Product Types requested in this request

#### Constructors

## GasStationManager.GasStationsOptions

public GasStationManager.GasStationsOptions()

Default Constructor initializes the output fields requested and products requested to ALL

#### GasStationManager.GasStationsOptions

Constructor with the outputFields and product types

#### **Parameters:**

outputFields
productTypes

# Methods

## setOutputFields

public void setOutputFields(int outputFields)

Set the current output fields for this request options

#### **Parameters:**

outputFields

#### getOutputFields

```
public int getOutputFields()
```

get the current output fields for this request options

#### **Returns:**

- The output fields (as a bit field)

# setProductTypes

```
public void setProductTypes(int productTypes)
```

Set the current product types for this request options

#### **Returns:**

- The product types requested (as a bit field)

## getProductTypes

```
public int getProductTypes()
```

get the current product types for this request options

#### Returns

- The product types requested (as a bit field)

## getOutputFieldsString

```
public java.lang.String getOutputFieldsString()
```

Method to get the string representation of the output fields requested

#### **Returns:**

- the concatenated output fields as requested by the options specified

# getProductTypesString

```
public java.lang.String getProductTypesString()
```

Method to get the string representation of the product types requested

#### **Returns:**

- the concatenated product types as requested by the product types specified

# com.inrix.sdk Class GasStationManager.GasStationsRadiusOptions

public static class **GasStationManager.GasStationsRadiusOptions** extends **GasStationManager.GasStationsOptions** 

Request parameters to get gas stations in a radius

## **Fields**

#### center

private com.inrix.sdk.model.GeoPoint center

#### radius

private double radius

#### metric

private boolean metric

## Constructors

## Gas Station Manager. Gas Stations Radius Options

 $\label{eq:public GasStationManager.GasStationsRadiusOptions} (\begin{tabular}{ll} {\tt GeoPoint} & {\tt center}, \\ \hline & {\tt double \ radius}, \\ & {\tt boolean \ metric}) \end{tabular}$ 

Default constructor

#### **Parameters:**

center - - the center of the region where to the gas stations from

radius - - the radius of the region where to the gas stations from

metric - - whether radius is in meters or miles (true - the radius will be interpreted as meters, false - the radius will be interpreted as miles

## Gas Station Manager. Gas Stations Radius Options

#### **Parameters:**

```
center - - the center of the region where to the gas stations from
radius - - the radius of the region where to the gas stations from
metric - - whether radius is in meters or miles (true - the radius will be interpreted as miles
outputFields - - Output options for this request
productTypes - - product typed for this request
```

## **Methods**

#### setCenter

```
public void setCenter(GeoPoint center)
```

Set the center of this request

#### **Parameters:**

center - The center of the region in which to get data. Northern latitudes are positive and southern latitudes are negative. Eastern hemisphere longitudes are positive and western hemisphere longitudes are negative. Longitudes in North America are negative. The latitude and longitude values are expressed using the WGS 84 datum.

## getCenter

```
public GeoPoint getCenter()
```

Get the center of this request

#### **Parameters:**

center

#### setRadius

```
public void setRadius(double radius)
```

Set the radius of this request

#### **Parameters:**

radius - The radius of the circular bounding area from which to return data. Any features that are fully or partially enclosed within the bounding area are selected. If the Units parameter is set to Metric, the radius is measured in meters; if Units is set to US (the default), the radius is measured in miles.

## getRadius

```
public double getRadius()
```

Get the radius of this request

#### **isCenterValid**

```
public boolean isCenterValid()
```

Method to verify if the center provided is a valid geo point

#### Returns

- true if the center is valid - false if the center is invalid

#### isRadiusValid

```
public boolean isRadiusValid()
```

Method to verify if the radius is valid

#### **Returns:**

- true if the radius is valid (positive radii) - false if the radius is not valid (negative radii)

## setMetric

public void setMetric(boolean metric)

# getMetric

public boolean getMetric()

# com.inrix.sdk Class GasStationManager.GasStationsBoxOptions

public static class **GasStationManager.GasStationsBoxOptions** extends **GasStationManager.GasStationsOptions** 

Request parameters to get gas stations in a radius

## **Fields**

#### boxStart

private com.inrix.sdk.model.GeoPoint boxStart

#### boxEnd

private com.inrix.sdk.model.GeoPoint boxEnd

## Constructors

## GasStationManager.GasStationsBoxOptions

```
\label{eq:public GasStationManager.GasStationsBoxOptions(GeoPoint boxStart, \\ \hline \textit{GeoPoint boxEnd})
```

Default Constructor

#### **Parameters:**

 ${\tt boxStart -- The\ start\ latitude\ and\ longitude\ of\ the\ '"box\"\ from\ which\ to\ get\ the\ gas\ stations} \\ {\tt boxEnd -- The\ end\ latitude\ and\ longitude\ of\ the\ '"box\"\ from\ which\ to\ get\ the\ gas\ stations} \\$ 

## GasStationManager.GasStationsBoxOptions

Constructor with output fields and output options

#### **Parameters:**

```
boxStart - The start latitude and longitude of the \"box\" from which to get the gas stations boxEnd - The end latitude and longitude of the \"box\" from which to get the gas stations outputFields - Output options for this request productTypes - product typed for this request
```

# Methods

#### setBoxStart

```
public void setBoxStart(GeoPoint boxStart)
```

Set the start of the region of this request

#### **Parameters:**

boxStart - The start of the region in which to get data. Northern latitudes are positive and southern latitudes are negative. Eastern hemisphere longitudes are positive and western hemisphere longitudes are negative. Longitudes in North America are negative. The latitude and longitude values are expressed using the WGS 84 datum.

#### getBoxStart

```
public GeoPoint getBoxStart()
```

Get the start of the region for this request

#### setBoxEnd

```
public void setBoxEnd(GeoPoint boxEnd)
```

Set the end of the region of this request

#### **Parameters:**

boxEnd - The end of the region in which to get data. Northern latitudes are positive and southern latitudes are negative. Eastern hemisphere longitudes are positive and western hemisphere longitudes are negative. Longitudes in North America are negative. The latitude and longitude values are expressed using the WGS 84 datum.

## getBoxEnd

```
public GeoPoint getBoxEnd()
```

Get the end of the region for this request

#### isStartValid

```
public boolean isStartValid()
```

Method to verify if the start provided is a valid geo point

#### **Returns:**

- true if the start is valid - false if the start is invalid

#### isEndValid

```
public boolean isEndValid()
```

Method to verify if the end provided is a valid geo point

#### **Returns:**

- true if the end is valid - false if the end is invalid

# com.inrix.sdk Class GasStationManager.SingleGasStationOptions

public static class **GasStationManager.SingleGasStationOptions** extends **GasStationManager.GasStationsOptions** 

## **Fields**

#### gasStationID

private java.lang.String gasStationID

## Constructors

## GasStationManager.SingleGasStationOptions

public GasStationManager.SingleGasStationOptions(GasStation gasStation)

## GasStationManager.SingleGasStationOptions

# Methods

## getStationID

public java.lang.String getStationID()

#### initGasStationID

private void initGasStationID(GasStation gasStation)

#### **isGasStationIDValid**

public boolean isGasStationIDValid()

com. in rix. sdk. Gas Station Manager. Single Gas Station Options(continued from last page)

# com.inrix.sdk Interface ICancellable

**All Known Implementing Classes:** 

IncidentAlert, LoginProcessor

public interface ICancellable extends

Implemented by the cancelable actions.

# Methods

## cancel

public void cancel()

Cancel current action.

# com.inrix.sdk Interface IDataResponseListener

#### All Subinterfaces:

IIncidentsAlertListener, ISingleGasStationResponseListener, IGasStationResponseListener, IIncidentsResponseListener, ILocationDeleteResponseListener, ILocationSUpdateResponseListener, ILocationSaveResponseListener, ILocationsGetResponseListener, IParkingResponseListener, IRouteResponseListener, ITravelTimeResponseListener, ILoginOperationResponseListener

# interface IDataResponseListener extends

This class is the base class of response listeners. Specific response listeners should be derived from this class **Parameters:** 

Т

# Methods

#### onResult

public void onResult(java.lang.Object data)

Method that will be called when the request was successful and the response is good

#### **Parameters:**

data - - Result data

#### onError

public void onError(Error error)

Method that will be called when the request was not successful

#### **Parameters:**

error - - Error Object containing information about the error such as the server error id and error message

# com.inrix.sdk Class IncidentAlert

**All Implemented Interfaces:** 

IIncidentsResponseListener, ICancellable

public class **IncidentAlert** extends java.lang.Object

implements ICancellable, IIncidentsResponseListener

# Fields

#### listener

private com.inrix.sdk.AlertsManager.IIncidentsAlertListener listener

#### alertInterval

private int alertInterval

## speedFactor

private float speedFactor

#### isInProgress

private boolean isInProgress

## currentRequest

private com.inrix.sdk.ICancellable currentRequest

#### requestParams

private com.inrix.sdk.IncidentsManager.IncidentRadiusOptions requestParams

# incidentManager

private com.inrix.sdk.IncidentsManager incidentManager

#### filter

private com.inrix.sdk.AlertsManager.IFilter filter

## MIN\_SPEED\_ALLOWED\_MPH

private final float MIN\_SPEED\_ALLOWED\_MPH

Constant value: 10.0

#### timer

private java.util.Timer timer

## Constructors

#### **IncidentAlert**

# Methods

#### cancel

public void cancel()

## resetUpdateTimer

private void resetUpdateTimer()

## requestIncidents

private void requestIncidents()

# generateRadiusOptions

private IncidentsManager.IncidentRadiusOptions generateRadiusOptions()

#### onResult

public void onResult(java.util.List data)

### **filterData**

private java.util.List filterData(java.util.List data)

## getLastRequestedDistance

public double getLastRequestedDistance()

Returns last requested distance in miles. This value may vary based on the speed at the moment of request. See  ${\tt AlertsManager.IncidentAlertOptions.setSpeedFactor(float)}$ 

#### Returns

last requested distance in miles

#### onError

public void onError(Error error)

# com.inrix.sdk Class IncidentsManager

#### **All Implemented Interfaces:**

**IRefreshableActions** 

public final class **IncidentsManager** extends java.lang.Object implements **IRefreshableActions** 

Represents an incident manager, that can be used to retrieve and manage incidents.

## Fields

### CALLBACK\_MISSING

private static final java.lang.String CALLBACK\_MISSING

Constant value: Callback is missing

### REQUEST\_PARAMS\_MISSING

private static final java.lang.String REQUEST\_PARAMS\_MISSING

Constant value: Request parameters are missing

### INCIDENT\_TYPE\_CONSTRUCTION

public static final int INCIDENT\_TYPE\_CONSTRUCTION

Constant value: 1

### INCIDENT\_TYPE\_EVENT

public static final int INCIDENT\_TYPE\_EVENT

Constant value: 2

### INCIDENT\_TYPE\_FLOW

public static final int INCIDENT\_TYPE\_FLOW

Constant value: 3

### INCIDENT TYPE INCIDENT

public static final int INCIDENT TYPE INCIDENT

Constant value: 4

### INCIDENT\_TYPE\_POLICE

public static final int INCIDENT\_TYPE\_POLICE

Constant value: 6

### INCIDENT\_TYPE\_HAZARD

public static final int INCIDENT\_TYPE\_HAZARD

Constant value: 8

### INCIDENT\_OUTPUT\_FIELDS\_ID

public static final int INCIDENT\_OUTPUT\_FIELDS\_ID

The unique identifier of an incident.

Constant value: 1

### INCIDENT\_OUTPUT\_FIELDS\_VERSION

public static final int INCIDENT\_OUTPUT\_FIELDS\_VERSION

The version number of the incident report, incremented each time an incident report is updated.

Constant value: 2

### INCIDENT\_OUTPUT\_FIELDS\_TYPE

public static final int INCIDENT\_OUTPUT\_FIELDS\_TYPE

The type of the incident (Incidents, Construction, Events, Flow, Area, or Weather). Incidents can be determined from the Alert-C event code, Construction indicates the presence of road construction, Events can be weather-related or a scheduled sporting/public event, and Flow indicates a blocking incident.

Constant value: 4

### INCIDENT\_OUTPUT\_FIELDS\_SEVERITY

public static final int INCIDENT\_OUTPUT\_FIELDS\_SEVERITY

The severity of the incident. This value can be in the range of 0-4, with 4 indicating the highest severity. Constant value: 8

### INCIDENT\_OUTPUT\_FIELDS\_EVENT\_CODE

public static final int INCIDENT OUTPUT FIELDS EVENT CODE

The event code of the incident. These are standard Alert-C event codes.

Constant value: 16

### INCIDENT OUTPUT FIELDS LATLONG

public static final int INCIDENT OUTPUT FIELDS LATLONG

The latitude and longitude of the incident.

Constant value: 32

### INCIDENT\_OUTPUT\_FIELDS\_IMPACTING

public static final int INCIDENT\_OUTPUT\_FIELDS\_IMPACTING

Whether the incident impacts traffic flow. This field is set if the appearance of the incident changes the traffic flow below a certain percentage from that which is normally expected for the given segment of road at that time, given the current conditions.

Constant value: 64

### INCIDENT\_OUTPUT\_FIELDS\_STARTTIME

public static final int INCIDENT OUTPUT FIELDS STARTTIME

The starting time of the incident.

Constant value: 128

## INCIDENT\_OUTPUT\_FIELDS\_ENDTIME

public static final int INCIDENT\_OUTPUT\_FIELDS\_ENDTIME

The ending time of the incident.

Constant value: **256** 

### INCIDENT\_OUTPUT\_FIELDS\_DELAY\_IMPACT

public static final int INCIDENT\_OUTPUT\_FIELDS\_DELAY\_IMPACT

Provide the delay in minutes versus typical conditions and versus free flow conditions.

Constant value: **512** 

### INCIDENT OUTPUT FIELDS AREA

public static final int INCIDENT\_OUTPUT\_FIELDS\_AREA

The points in a polygon that describes a weather incident that is returned, in GML format. For more information about GML format, see http://www.opengeospatial.org/standards/gml.

Constant value: 1024

## INCIDENT\_OUTPUT\_FIELDS\_RDS

public static final int INCIDENT\_OUTPUT\_FIELDS\_RDS

The Radio Data System data. Constant value: **2048** 

### INCIDENT\_OUTPUT\_FIELDS\_ALL

public static final int INCIDENT\_OUTPUT\_FIELDS\_ALL

This option returns all of the options available.

Constant value: 65535

### INCIDENT RESULT TYPE INCIDENTS

public static final int INCIDENT RESULT TYPE INCIDENTS

This option returns all unusual incidents that may slow down traffic such as a car accident.

Constant value: 1

### INCIDENT\_RESULT\_TYPE\_CONSTRUCTION

public static final int INCIDENT\_RESULT\_TYPE\_CONSTRUCTION

This option returns only construction incidents.

Constant value: 2

### INCIDENT\_RESULT\_TYPE\_EVENTS

public static final int INCIDENT\_RESULT\_TYPE\_EVENTS

This option returns unusual events slated for the area such as a major sporting event.

Constant value: 4

### INCIDENT RESULT TYPE FLOW

public static final int INCIDENT\_RESULT\_TYPE\_FLOW

This option returns reports about the slowing down of traffic on your route.

Constant value: 8

### INCIDENT\_RESULT\_TYPE\_POLICE

public static final int INCIDENT\_RESULT\_TYPE\_POLICE

This option returns reports about the police presence.

Constant value: 16

### INCIDENT\_RESULT\_TYPE\_WEATHER

public static final int INCIDENT\_RESULT\_TYPE\_WEATHER

This option returns unusual weather incidents that could alter traffic speed.

Constant value: 32

### INCIDENT\_RESULT\_TYPE\_ALL

public static final int INCIDENT\_RESULT\_TYPE\_ALL

Selecting this option returns all incidents.

Constant value: 65535

### INCIDENT\_SOURCE\_INRIXONLY

public static final int INCIDENT SOURCE INRIXONLY

Return incidents from non-commercial sources.

Constant value: 1

### INCIDENT\_SOURCE\_COMMUNITY

public static final int INCIDENT\_SOURCE\_COMMUNITY

Return incidents from community sources.

Constant value: 2

### INCIDENT\_SOURCE\_ALL

public static final int INCIDENT\_SOURCE\_ALL

Return incidents from all sources.

Constant value: 255

### UNIT\_ENGLISH

public static final int UNIT\_ENGLISH

Miles

Constant value: 0

## UNIT\_METRIC

public static final int UNIT\_METRIC

Kilometers Constant value: 1

### GET\_INCIDENTS\_INTERVAL

private static final int **GET\_INCIDENTS\_INTERVAL** 

Constant value: 180

### Constructors

### **IncidentsManager**

public IncidentsManager()

# Methods

### getRefreshInterval

public int getRefreshInterval(IncidentsManager.ACTIONS action)

Return the preferred refresh interval for an action

#### **Parameters:**

action - - refresh action

#### **Returns:**

preferred refresh interval (in seconds)

## getIncidentsInBox

```
\begin{array}{ccc} \text{public final } & \underline{\text{ICancellable}} \\ \textbf{getIncidentsInBox}(\underline{\text{IncidentsManager.IIncidentsResponseListener}} \\ & \underline{\text{IncidentsManager.IncidentBoxOptions}} \\ & \text{throws} & \underline{\text{java.security.InvalidParameterException}} \end{array} \\ \\ \end{array} \\ \begin{array}{c} \text{listener}, \\ \text{l
```

Get incident in bounding box

#### **Parameters:**

listener - response listener
requestParams - request params

**Returns:** 

### getIncidentsInRadius

Get incident in radius

#### **Parameters:**

listener - response listener
requestParams - request params

**Returns:** 

## getIncidentOutputFieldsString

private final java.lang.String getIncidentOutputFieldsString(int fieldsFlag)

Gets the incident output fields as a string.

#### **Parameters:**

fieldsFlag - the fields flag

#### **Returns:**

the incident output fields string

### getIncidentResultTypeAsString

```
private final java.lang.String getIncidentResultTypeAsString(int typeFlags)
```

Gets the incident result type as string.

#### **Parameters:**

typeFlags - the type flags

#### **Returns:**

the incident result type as string

### getIncidentSourceAsString

private final java.lang.String getIncidentSourceAsString(int sourceFlags)

Gets the incident source as string.

#### **Parameters:**

 $\verb"sourceFlags"- the source flags$ 

#### **Returns:**

the incident source as string

# com.inrix.sdk Class IncidentsManager.ACTIONS

**All Implemented Interfaces:** 

java.io.Serializable, java.lang.Comparable

public static final class **IncidentsManager.ACTIONS** extends java.lang.Enum

## Fields

## **GET\_INCIDENTS**

public static final com.inrix.sdk.IncidentsManager.ACTIONS GET\_INCIDENTS

### Constructors

## IncidentsManager.ACTIONS

private IncidentsManager.ACTIONS()

## Methods

#### values

public static IncidentsManager.ACTIONS[] values()

### valueOf

public static IncidentsManager.ACTIONS valueOf(java.lang.String name)

# com.inrix.sdk Class IncidentsManager.IncidentOptions

**Direct Known Subclasses:** 

IncidentRadiusOptions IncidentBoxOptions

public static abstract class **IncidentsManager.IncidentOptions** extends java.lang.Object

## **Fields**

### incidentType

private int incidentType

#### incidentSource

private int incidentSource

### incidentOutputFields

private int incidentOutputFields

## severity

private java.lang.Integer severity

### Constructors

## IncidentsManager.IncidentOptions

public IncidentsManager.IncidentOptions()

# Methods

# getIncidentType

int getIncidentType()

### setIncidentType

public IncidentsManager.IncidentOptions setIncidentType(int incidentType)

Type of incidents to request. The default is "ALL" (see IncidentsManager.INCIDENT\_RESULT\_TYPE\_ALL). Multiple types can be specified

#### **Parameters:**

incidentType - - incident type set of flags

**Returns:** 

### getIncidentSource

int getIncidentSource()

#### **setIncidentSource**

public IncidentsManager.IncidentOptions setIncidentSource(int incidentSource)

Set requested source of the incidents

#### **Parameters:**

incidentsSource - - A value of "INRIXonly" specifies that incidents are compiled from non-commercial sources, such as flow incidents that are generated programmatically from Inrix traffic information or planned construction incidents. A value of "Community" specifies that incidents come from community sources, such as incidents submitted through mobile devices. The default is "ALL." (IncidentsManager.INCIDENT\_SOURCE\_ALL)

**Returns:** 

## getIncidentOutputFields

int getIncidentOutputFields()

### **setIncidentOutputFields**

public IncidentsManager.IncidentOptions setIncidentOutputFields(int incidentOutputFields)

Set response output fields

#### **Parameters:**

incidentOutputFields - The incident fields to output. Multiple fields can be specified. The default is all (IncidentsManager.INCIDENT\_OUTPUT\_FIELDS\_ALL)

### getSeverity

java.lang.Integer[] getSeverity()

# setSeverity

public IncidentsManager.IncidentOptions setSeverity(java.lang.Integer[] severity)

Filters incident reports based on severity level. This value can be in the range of 0-4, with 4 indicating the highest severity. Multiple severity values can be specified. The default is "ALL"

#### **Parameters:**

severity

**Returns:** 

# com.inrix.sdk Class IncidentsManager.IncidentBoxOptions

public static class **IncidentsManager.IncidentBoxOptions** extends **IncidentsManager.IncidentOptions** 

### **Fields**

#### corner1

private com.inrix.sdk.model.GeoPoint corner1

#### corner2

private com.inrix.sdk.model.GeoPoint corner2

## Constructors

## IncidentsManager.IncidentBoxOptions

#### **Parameters:**

corner1 - - First corner of the bounding rectangle. The corner specified by the corner1 parameter can be any of the four corners of the bounding rectangle.

corner2 - The second corner of the region in which to get data. The corner2 parameter is the geometric opposite of corner1.

## Methods

### getCorner1

GeoPoint getCorner1()

#### setCorner1

public IncidentsManager.IncidentBoxOptions setCorner1(GeoPoint corner1)

First corner of the bounding rectangle. The corner specified by the corner1 parameter can be any of the four corners of the bounding rectangle.

#### **Parameters:**

corner1

**Returns:** 

## getCorner2

GeoPoint getCorner2()

### setCorner2

public IncidentsManager.IncidentBoxOptions setCorner2(GeoPoint corner2)

The second corner of the region in which to get data. The corner2 parameter is the geometric opposite of corner1.

#### **Parameters:**

corner2

**Returns:** 

# com.inrix.sdk Class IncidentsManager.IncidentRadiusOptions

public static class **IncidentsManager.IncidentRadiusOptions** extends **IncidentsManager.IncidentOptions** 

## Fields

#### center

private com.inrix.sdk.model.GeoPoint center

#### radius

private double radius

#### units

private int units

### Constructors

## IncidentsManager.IncidentRadiusOptions

# Methods

### getCenter

GeoPoint getCenter()

### setCenter

public IncidentsManager.IncidentRadiusOptions setCenter(GeoPoint center)

First corner of the bounding rectangle. The corner specified by the corner1 parameter can be any of the four corners of the bounding rectangle.

#### **Parameters:**

corner1

**Returns:** 

### setRadius

public IncidentsManager.IncidentRadiusOptions setRadius(double radius)

Set radius in miles

#### **Parameters:**

radius

**Returns:** 

## getRadius

```
double getRadius()
```

Get radius

#### **Returns:**

radius in miles/kilometers (depending on Units param)

## getUnits

int getUnits()

### setUnits

```
public void setUnits(int units)
```

Set units (see IncidentsManager.UNIT\_ENGLISH)

#### **Parameters:**

units

# com.inrix.sdk $Interface\ Incidents Manager. IIncidents Response Listener$

**All Superinterfaces:** 

IData Response Listener

All Known Implementing Classes: IncidentAlert

 $public\ interface\ \textbf{Incidents} \textbf{Manager.} \textbf{IIncidents} \textbf{ResponseListener}$ extends IDataResponseListener

Incidents result listener.

# com.inrix.sdk Class IncidentUtils

public class **IncidentUtils** extends java.lang.Object

## **Fields**

### roadClosureEventCodes

private static java.util.HashSet roadClosureEventCodes

## Constructors

### **IncidentUtils**

public IncidentUtils()

# Methods

### isRoadClosure

public static boolean isRoadClosure(java.lang.Integer eventCode)

## com.inrix.sdk Class Inrix

public final class **Inrix** extends java.lang.Object

## **Fields**

## NO\_VALUE

public static final int NO\_VALUE

Indicates that no value was assigned. Constant: . Constant value: **-2147483648** 

#### instance

private static com.inrix.sdk.Inrix instance

## config

private static com.inrix.sdk.InrixConfig config

### isInitialized

private static boolean isInitialized

### Constructors

#### **Inrix**

public Inrix()

## Methods

#### initialize

public static void initialize(Context context)

Initialize all necessary process and load configuration

#### **Parameters:**

context - the context

#### initialize

Initialize.

#### **Parameters:**

context - the context
configuration - the configuration

#### initialize

Initialize with the configuration file

#### **Parameters:**

context
strConfigFileName

#### Throws:

InvalidParameterException

#### shutdown

```
public static void shutdown(Context context)
```

Shutdown existing Inrix instance, clear all user related data

#### **Parameters:**

context - the context

### getInstance

```
public static Inrix getInstance()
```

### setLocationSource

void setLocationSource(IGeolocationSource locationSource)

Set location provider and activate it. INRIX has built in geolocation tracking module which starts as soon as SDK gets initialized. If you want to provide your own location source - INRIX geolocation tracker will be disabled and replaced with the one specified via this function. All previously set location sources will be deactivated

#### **Parameters:**

locationSource

### startGeoLocationTracking

public void startGeoLocationTracking()

 $Activate\ location\ source\ specified\ via\ {\tt \underline{setLocationSource}(IGeolocationSource)}$ 

## stopGeoLocationTracking

public void stopGeoLocationTracking()

Deactivate location source specified via setLocationSource(IGeolocationSource)

## getConfiguration

```
public InrixConfig getConfiguration()
```

Gets the configuration for current Inrix instance.

#### **Returns:**

the configuration information

### validate

private static void validate()

# com.inrix.sdk Class InrixConfig

public class **InrixConfig** extends **Settings** 

The Class InrixConfig.

## Fields

### vendorId

private java.lang.String vendorId

## vendorToken

private java.lang.String vendorToken

## csApiUrl

private java.lang.String csApiUrl

### csSecureApiUrl

private java.lang.String csSecureApiUrl

### mosiURL

private java.lang.String mosiURL

### logLevel

private int logLevel

#### version

private java.lang.String version

### ERROR\_CONFIG\_FILE\_NAME

private static final java.lang.String ERROR\_CONFIG\_FILE\_NAME

Constant value: Config file name is null or empty

### ERROR\_NULL\_CONTEXT

private static final java.lang.String ERROR\_NULL\_CONTEXT

Constant value: Context provided is null

#### Constructors

### **InrixConfig**

public InrixConfig()

## Methods

## loadDefaultOptions

public static InrixConfig loadDefaultOptions(Context paramContext)

Load default options.

#### **Parameters:**

paramContext - the param context

### **Returns:**

the inrix config

## loadOptions

#### **Parameters:**

paramContext - the param context
configFileName

#### **Returns:**

the inrix config

## getDefaultPropertiesFilename

public java.lang.String getDefaultPropertiesFilename()

#### isValid

public boolean isValid()

### getVendorToken

public java.lang.String getVendorToken()

Gets the vendor token.

**Returns:** 

the vendor token

### setVendorToken

public void setVendorToken(java.lang.String localVendorToken)

Sets the vendor token.

**Returns:** 

the vendor token

### getVendorId

public java.lang.String getVendorId()

Gets the vendor id.

**Returns:** 

the vendor id

### setVendorId

public void setVendorId(java.lang.String localVendorId)

Sets the vendor id.

**Returns:** 

the vendor id

## getCsApiUrl

public java.lang.String getCsApiUrl()

Gets the API URL.

**Returns:** 

the CS main API URL

## setCsApiUrl

public void setCsApiUrl(java.lang.String localCsApiUrl)

Sets the API URL.

#### **Returns:**

the CS main API URL

## getSecureCsApiUrl

public java.lang.String getSecureCsApiUrl()

Gets the secure API URL.

#### **Returns:**

the CS main API URL

## getMosiApiUrl

public java.lang.String getMosiApiUrl()

Gets the MOsI API URL.

#### **Returns:**

the MOsI API URL.

### getLogLevel

public int getLogLevel()

Gets the log level.

#### **Returns:**

the log level

## getVersion

public java.lang.String getVersion()

Gets the version.

#### **Returns:**

the version

### setVersion

public void setVersion(java.lang.String localVersion)

Sets the version.

#### **Returns:**

the version

# com.inrix.sdk Class InrixDebug

public class **InrixDebug** extends java.lang.Object

InrixDebug, debug related methods, logging

## **Fields**

### currentLoglevel

static com.inrix.sdk.InrixDebug.LogType currentLoglevel

Describe what type of information can be reported

### Constructors

### **InrixDebug**

public InrixDebug()

## Methods

### setLogLevel

final static void setLogLevel(int level)

Sets the log level, what type of information can be reported

#### **Parameters:**

level - the new log level

### **isOnEmulator**

public final static boolean isOnEmulator()

Checks if its running on emulator.

#### **Returns:**

true, if its running on emulator; otherwise false.

## LogD

```
public static void LogD(java.lang.String msg)
```

Send debug information.

#### **Parameters:**

msg - the message to be reported

### LogD

Send debug information.

#### **Parameters:**

msg - the message exception - the exception

## LogE

```
public static void LogE(java.lang.String msg)
```

Send error message.

#### **Parameters:**

msg - the message

### LogE

Send error message.

#### **Parameters:**

msg - the message exception - the exception causing error

## LogE

```
\verb"public static void $\textbf{LogE}(java.lang.Throwable exception)"
```

Send error message.

#### **Parameters:**

exception - the exception causing error

### LogW

```
public static void LogW(java.lang.String msg)
```

Send warning message.

#### **Parameters:**

msg - the message

### LogW

Send warning message.

#### **Parameters:**

```
msg - the message exception - the exception causing error
```

### LogV

```
public static void LogV(java.lang.String msg)
```

Send verbose message.

#### **Parameters:**

msg - the message

### LogV

```
public static void LogV(java.lang.Object[] objs)
```

Send verbose message.

#### **Parameters:**

objs - set of S information to send

### LogEvent

Log event

#### **Parameters:**

```
msg - log message
exception - optional exception
type - log type
```

### generateLogEntity

Create log entity. Log entity will contain all info regarding log including verbose message

#### **Parameters:**

```
msg - log message
type - log type
```

#### **Returns:**

LogEntity

### canBeLogged

```
private static boolean canBeLogged(InrixDebug.LogType type)
```

Can send this message.

#### **Parameters:**

```
type - the type
```

**Returns:** 

true, if successful

# com.inrix.sdk Class InrixDebug.LogType

#### **All Implemented Interfaces:**

java.io.Serializable, java.lang.Comparable

private static final class **InrixDebug.LogType** extends java.lang.Enum

The Enumeration LogType, describe log entry type which type of information can be reported

## **Fields**

#### Error

public static final com.inrix.sdk.InrixDebug.LogType Error

### Warning

public static final com.inrix.sdk.InrixDebug.LogType Warning

### **Debug**

public static final com.inrix.sdk.InrixDebug.LogType Debug

#### Verbose

public static final com.inrix.sdk.InrixDebug.LogType Verbose

## Constructors

## InrixDebug.LogType

private InrixDebug.LogType()

## Methods

## values

public static InrixDebug.LogType[] values()

## valueOf

public static InrixDebug.LogType valueOf(java.lang.String name)

## valueOf

public static InrixDebug.LogType valueOf(int level)

# com.inrix.sdk Class InrixDebug.LogEntry

private static class **InrixDebug.LogEntry** extends java.lang.Object

LogEntry contains extended version of message.

## Fields

### msg

java.lang.String msg

## verboseMsg

java.lang.String verboseMsg

### fileName

java.lang.String fileName

### className

java.lang.String className

#### methodName

java.lang.String methodName

### lineNum

int lineNum

## Constructors

# InrixDebug.LogEntry

private InrixDebug.LogEntry()

# com.inrix.sdk Class IntentFactory

public final class **IntentFactory** extends java.lang.Object

## Constructors

# IntentFactory

public IntentFactory()

# Methods

## openIncidentDetails

Open incident details.

#### **Parameters:**

context - the context

# com.inrix.sdk Interface IRefreshableActions

**All Known Implementing Classes:** 

AlertsManager, GasStationManager, IncidentsManager, ParkingManager, RouteManager, TileManager

public interface **IRefreshableActions** extends

Implemented by the managers with refresh intervals

# Methods

# get Refresh Interval

public int getRefreshInterval(java.lang.Object action)

# com.inrix.sdk Class LocationsManager

public class **LocationsManager** extends java.lang.Object

### Fields

### CALLBACK\_MISSING

private static final java.lang.String CALLBACK\_MISSING

Constant value: Result callback is missing

### REQUEST\_PARAMETERS\_MISSING

private static final java.lang.String REQUEST\_PARAMETERS\_MISSING

Constant value: Request parameters are missing

### POSITION\_INVALID

private static final java.lang.String POSITION\_INVALID

Constant value: Location position is invalid

### LOCATION ID INVALID

private static final java.lang.String LOCATION\_ID\_INVALID

Constant value: LocationId is invalid

### LOCATION\_NAME\_INVALID

private static final java.lang.String LOCATION\_NAME\_INVALID

Constant value: Location name is invalid

### Constructors

### LocationsManager

public LocationsManager()

# Methods

# requestSavedLocations

```
public final ICancellable
requestSavedLocations(LocationsManager.ILocationsGetResponseListener)
throws java.security.InvalidParameterException
```

Request locations saved by current user

#### **Parameters:**

listener

#### **Returns:**

ICancellable so you can cancel this operation

#### createLocation

#### **Parameters:**

listener - - response listener. Location instance will be returned in case of success params - - create location options

### deleteLocation

Request to delete location from the server

#### **Parameters:**

locationId - - id of location to delete
listener - - result listener

#### **Returns:**

# updateLocation

```
\begin{array}{ll} \text{public ICancellable} & \textbf{updateLocation}(\underline{\text{LocationsManager.ILocationSaveResponseListener}}\\ & \underline{\text{LocationsManager.UpdateLocationOptions}}\\ & \text{throws} & \underline{\text{java.security.InvalidParameterException}} \end{array}
```

Update previously saved location

#### **Parameters:**

```
listener - - result listener params - - update location options
```

#### **Returns:**

ICancellable so you can cancel ongoing operation

# getLastLocationsUpdate

 $\begin{tabular}{ll} public ICancellable \\ {\tt getLastLocationsUpdate(LocationsManager.ILastLocationsUpdateResponseListener)} \\ \end{tabular} listener) \\ \end{tabular}$ throws java.security. InvalidParameterException

Get last update timestamp. As a result, you will get latest known update timestamp for locations/custom routes/alerts or NULL if specified entry was never changed.

This API can be useful to peek status of the last update of locations, so you know when you need to request actual

locations payload

#### **Parameters:**

listener - - result listener

# com.inrix.sdk Interface LocationsManager.ILocationsGetResponseListener

**All Superinterfaces:** 

IDataResponseListener

 $public\ interface\ Locations Manager. ILocations Get Response Listener\ extends\ ID at a Response Listener\$ 

Incidents result listener.

# com.inrix.sdk Interface LocationsManager.ILocationSaveResponseListener

**All Superinterfaces:** 

IDataResponseListener

 $public\ interface\ Locations Manager. ILocation Save Response Listener\ extends\ ID at a Response Listener$ 

# $com. in rix. sdk\\ Interface\ Locations Manager. IL ast Locations Update Response Listener$

**All Superinterfaces:** 

IDataResponseListener

 $public\ interface\ Locations Manager. IL ast Locations Update Response Listener\ extends\ ID at a Response Listener\ extends\ ID\ extends\ Extend$ 

# com.inrix.sdk Interface LocationsManager.ILocationDeleteResponseListener

**All Superinterfaces:** 

IDataResponseListener

 $public\ interface\ Locations Manager. ILocation Delete Response Listener\ extends\ ID at a Response Listener$ 

# com.inrix.sdk Class LocationsManager.CreateLocationOptions

public static class **LocationsManager.CreateLocationOptions** extends java.lang.Object

# **Fields**

#### name

private java.lang.String name

### address

private java.lang.String address

### position

private com.inrix.sdk.model.GeoPoint position

### customData

private java.lang.String customData

# locationType

private int locationType

### order

private int order

# Constructors

# Locations Manager. Create Location Options

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### setName

public LocationsManager.CreateLocationOptions setName(java.lang.String name)

Set location name

**Parameters:** 

name

**Returns:** 

# getName

java.lang.String getName()

### setAddress

public LocationsManager.CreateLocationOptions setAddress(java.lang.String address)

Optional address

**Parameters:** 

address

**Returns:** 

# getAddress

java.lang.String getAddress()

### setPosition

public LocationsManager.CreateLocationOptions setPosition(GeoPoint position)

Set geo position

**Parameters:** 

position

**Returns:** 

### getPosition

GeoPoint getPosition()

### setCustomData

 $\begin{array}{ll} \text{public } \underline{\text{LocationsManager.CreateLocationOptions}} & \textbf{setCustomData} (\text{java.lang.String customData}) \end{array}$ 

Set custom data. This optional data will be saved along with location

#### **Parameters:**

customData

**Returns:** 

# getCustomData

java.lang.String getCustomData()

# setLocationType

public LocationsManager.CreateLocationOptions setLocationType(int type)

Set location type. This parameter is provided for clients as a means of identifying what kind of location this is. For example, an application may want to save gas stations to the address book. In this case, the client can save its internal type identifier for "gas station" to the locationType field.

#### **Parameters:**

type

**Returns:** 

# getLocationType

int getLocationType()

### setOrder

public LocationsManager.CreateLocationOptions setOrder(int order)

Optional order parameter. This parameter can be used by clients in order to preserve the order of locations, so next time you call GetLocations API, you know in what order these locations should be displayed on a client. You can pass 0 if you don't care about ordering.

#### **Parameters:**

order

**Returns:** 

# getOrder

int getOrder()

# com.inrix.sdk Class LocationsManager.UpdateLocationOptions

public static class **LocationsManager.UpdateLocationOptions** extends java.lang.Object

# **Fields**

### locationId

private long locationId

#### name

private java.lang.String name

### address

private java.lang.String address

### order

private java.lang.Integer order

### type

private java.lang.Integer type

# customData

private java.lang.String customData

# Constructors

# LocationsManager.UpdateLocationOptions

public LocationsManager.UpdateLocationOptions(long locationId)

# Methods

# getLocationId

long getLocationId()

### getName

java.lang.String getName()

### setName

public LocationsManager.UpdateLocationOptions setName(java.lang.String name)

# getOrder

java.lang.Integer getOrder()

### setOrder

public LocationsManager.UpdateLocationOptions setOrder(java.lang.Integer order)

# getAddress

java.lang.String getAddress()

### setAddress

public LocationsManager.UpdateLocationOptions setAddress(java.lang.String address)

# getCustomData

java.lang.String getCustomData()

# setCustomData

public LocationsManager.UpdateLocationOptions customData(java.lang.String customData)

# getLocationType

java.lang.Integer getLocationType()

# setLocationType

 $\verb|public| $\underline{$Locations Manager.UpdateLocationOptions}$ $ \textbf{setLocationType} (java.lang.Integer type) \\$ 

# com.inrix.sdk Class LocationsManager.DeleteLocationOptions

public static class **LocationsManager.DeleteLocationOptions** extends java.lang.Object

# **Fields**

### locationId

private long locationId

# Constructors

# LocationsManager.DeleteLocationOptions

public LocationsManager.DeleteLocationOptions(long locationId)

# Methods

# getLocationId

public long getLocationId()

# com.inrix.sdk Class ParkingManager

java.lang.Object

+-com.inrix.sdk.ParkingManager

#### **All Implemented Interfaces:**

**IRefreshableActions** 

public final class **ParkingManager** extends java.lang.Object implements **IRefreshableActions** 

Provides APIs to retrieve parking lots in geographical region an get information about parking lots.

# **Fields**

### **GET\_PARKINGLOTS\_INTERVAL**

private static final int GET\_PARKINGLOTS\_INTERVAL

Constant value: 180

# GET\_PARKINGLOT\_INFORMATION\_INTERVAL

private static final int GET PARKINGLOT INFORMATION INTERVAL

Constant value: 600

### PARKING OUTPUT FIELD VALUE BASIC

private static final java.lang.String PARKING\_OUTPUT\_FIELD\_VALUE\_BASIC

Basic information about the parking lot: name, address, location. Constant value: .

Constant value: basic

### PARKING\_OUTPUT\_FIELD\_VALUE\_PRICING

private static final java.lang.String PARKING\_OUTPUT\_FIELD\_VALUE\_PRICING

Pricing information for the parking lots. Constant value: .

Constant value: pricing

### PARKING\_OUTPUT\_FIELD\_VALUE\_GEOMETRY

private static final java.lang.String PARKING\_OUTPUT\_FIELD\_VALUE\_GEOMETRY

Geometry of the parking lot. Constant value: .

Constant value: geometry

### PARKING OUTPUT FIELD VALUE DYNAMIC

private static final java.lang.String PARKING\_OUTPUT\_FIELD\_VALUE\_DYNAMIC

Dynamic fill rate. Constant value: .

Constant value: dynamic

### PARKING\_OUTPUT\_FIELD\_VALUE\_STATIC

private static final java.lang.String PARKING\_OUTPUT\_FIELD\_VALUE\_STATIC

Same as basic, with additional information: photo link, gate information, pricing, etc. Constant value: .

Constant value: static

### PARKING OUTPUT FIELD VALUE ALL

private static final java.lang.String PARKING\_OUTPUT\_FIELD\_VALUE\_ALL

All available information about the parking lot. Constant value: .

Constant value: all

### PARKING OUTPUT FIELD BASIC

public static final int PARKING\_OUTPUT\_FIELD\_BASIC

Basic information about the parking lot: name, address, location. Constant value: .

Constant value: 1

### PARKING\_OUTPUT\_FIELD\_PRICING

public static final int PARKING\_OUTPUT\_FIELD\_PRICING

Pricing information for the parking lots. Constant value: .

Constant value: 2

### PARKING OUTPUT FIELD GEOMETRY

public static final int PARKING\_OUTPUT\_FIELD\_GEOMETRY

Geometry of the parking lot. Constant value: .

Constant value: 4

### PARKING\_OUTPUT\_FIELD\_DYNAMIC

public static final int PARKING\_OUTPUT\_FIELD\_DYNAMIC

Dynamic fill rate. Constant value: .

Constant value: 8

# PARKING\_OUTPUT\_FIELD\_STATIC

public static final int PARKING\_OUTPUT\_FIELD\_STATIC

Same as basic, with additional information: photo link, gate information, pricing, etc. Constant value: .

Constant value: 16

# PARKING\_OUTPUT\_FIELD\_ALL

public static final int PARKING\_OUTPUT\_FIELD\_ALL

All available information about the parking lot. Constant value: .

Constant value: 255

# PARKING\_SORT\_BY\_NONE\_VALUE

private static final java.lang.String PARKING\_SORT\_BY\_NONE\_VALUE

No sorting is performed on results. Constant value: .

Constant value: none

# PARKING\_SORT\_BY\_DISTANCE\_VALUE

private static final java.lang.String PARKING\_SORT\_BY\_DISTANCE\_VALUE

Results are sorted by distance. Constant value: .

Constant value: distance

### UNITS\_METERS\_VALUE

private static final java.lang.String UNITS\_METERS\_VALUE

Constant value: 1

### UNITS\_MILES\_VALUE

private static final java.lang.String UNITS\_MILES\_VALUE

Constant value: 0

### Constructors

### **ParkingManager**

public ParkingManager()

Initializes a new instance of the ParkingManager.

# Methods

### getRefreshInterval

public int getRefreshInterval(ParkingManager.ACTIONS action)

Return the preferred refresh interval for an action

#### **Parameters:**

action - - refresh action

### **Returns:**

preferred refresh interval (in seconds)

# getParkingLotsInRadius

```
\begin{array}{ccc} \text{public final } & \underline{\text{ICancellable}} \\ \textbf{getParkingLotsInRadius}(\underline{\text{ParkingManager.IParkingResponseListener}} \\ & & \underline{\text{ParkingManager.ParkingInRadiusOptions}} \\ & & \underline{\text{InrixException}} \end{array} \\ \\ \text{listener,} \\ \\ \hline \end{array}
```

Gets parking lots in specified radius, using specified center an radius information.

#### **Parameters:**

options -

Parking request options.

listener -

Response callback.

#### **Returns:**

An instance of an object that implements ICancellable.

### getParkingLotsInBox

```
\begin{array}{ll} \text{public final} & \underline{\text{ICancellable}} & \textbf{getParkingLotsInBox}(\underline{\text{ParkingManager.IParkingResponseListener}} \\ \text{listener,} & \underline{\text{ParkingManager.ParkingInBoxOptions}} \\ \text{throws} & \overline{\text{InrixException}} \end{array} \text{options)} \end{array}
```

Gets the parking lots information in a specified rectangular region.

#### **Parameters:**

listener -

Response callback.

options -

Parking request options.

#### Returns

An instance of an object that implements ICancellable.

# getParkingLotInformation

Gets information about parking lot(s) using specified parking lot id(s).

#### **Parameters:**

ids -

Collection of target parking lot id(s). options -

Additional parking options listener -

Response callback.

#### **Returns:**

An instance of an object that implements ICancellable.

### validateArrivalDate

private final static void validateArrivalDate(java.util.Date date)

# validateOutputFields

private final static void validateOutputFields(int outputFields)

# resolveOutputFields

private final static java.lang.String resolveOutputFields(int outputFields)

### resolveSortValue

private final static java.lang.String resolveSortValue(ParkingManager.SORT\_BY sort)

### resolveUnits

private final static java.lang.String resolveUnits(ParkingManager.UNIT units)

# com.inrix.sdk Class ParkingManager.ACTIONS

#### **All Implemented Interfaces:**

java.io.Serializable, java.lang.Comparable

public static final class **ParkingManager.ACTIONS** extends java.lang.Enum

# Fields

# **GET\_PARKINGLOTS**

public static final com.inrix.sdk.ParkingManager.ACTIONS GET\_PARKINGLOTS

### **GET\_PARKINGLOT\_INFORMATION**

public static final com.inrix.sdk.ParkingManager.ACTIONS GET\_PARKINGLOT\_INFORMATION

### Constructors

### **ParkingManager.ACTIONS**

private ParkingManager.ACTIONS()

# Methods

### values

public static ParkingManager.ACTIONS[] values()

### valueOf

public static ParkingManager.ACTIONS valueOf(java.lang.String name)

# com.inrix.sdk Interface ParkingManager.IParkingResponseListener

**All Superinterfaces:** 

IData Response Listener

public interface **ParkingManager.IParkingResponseListener** extends IDataResponseListener

The listener interface for receiving IParkingResponse events. The class that is interested in processing a IParkingResponse event implements this interface. When the IParkingResponse event occurs, that object's appropriate method is invoked.

# com.inrix.sdk Class ParkingManager.ParkingOptions

**Direct Known Subclasses:** 

ParkingInfoOptions, ParkingInBoxOptions, ParkingInRadiusOptions

public static abstract class **ParkingManager.ParkingOptions** extends java.lang.Object

Represents an options for requesting information about parking lots.

# Fields

### arrivalDate

private java.util.Date arrivalDate

### outputFields

private int outputFields

### sortBy

private com.inrix.sdk.ParkingManager.SORT\_BY sortBy

### units

private com.inrix.sdk.ParkingManager.UNIT units

# Constructors

# ParkingManager.ParkingOptions

public ParkingManager.ParkingOptions()

Initializes a new instance of the ParkingOptions class.

# Methods

### setArrivalDate

public final ParkingManager.ParkingOptions setArrivalDate(java.util.Date arrivalDate)

Sets the arrival date.

#### **Parameters:**

arrivalDate -

Target arrival date.

#### **Returns:**

Current instance.

# getArrivalDate

final java.util.Date getArrivalDate()

Gets the arrival date.

#### **Returns:**

Arrival date value.

# setOutputFields

public final ParkingManager.ParkingOptions setOutputFields(int fields)

Sets the parking lot output fields. Default value: ParkingManager.PARKING\_OUTPUT\_FIELD\_BASIC.

#### **Parameters:**

fields -

Output fields for the parking lot. Supported values are:

- ParkingManager.PARKING\_OUTPUT\_FIELD\_BASIC
- ParkingManager.PARKING\_OUTPUT\_FIELD\_PRICING
- ParkingManager.PARKING\_OUTPUT\_FIELD\_GEOMETRY
- ParkingManager.PARKING\_OUTPUT\_FIELD\_DYNAMIC
- ParkingManager.PARKING\_OUTPUT\_FIELD\_STATIC
- ParkingManager.PARKING\_OUTPUT\_FIELD\_ALL

Fields can be combined, for instance PARKING\_OUTPUT\_FIELD\_BASIC | PARKING\_OUTPUT\_FIELD\_PRICING.

**Returns:** 

# getOutputFields

final int getOutputFields()

Gets the output fields value.

#### **Returns:**

Output fields value.

# setSortBy

public final ParkingManager.ParkingOptions setSortBy(ParkingManager.SORT\_BY sortBy)

Sorting order for the results.

#### **Parameters:**

sortBy

#### **Returns:**

Current instance.

# getSortBy

```
final ParkingManager.SORT_BY getSortBy()
```

Gets a sort order for the results.

#### **Returns:**

Sort order for results.

# setUnits

public final ParkingManager.ParkingOptions setUnits(ParkingManager.UNIT units)

Sets the output units

#### **Parameters:**

units

**Returns:** 

# getUnits

final ParkingManager.UNIT getUnits()

Gets the output units.

#### **Returns:**

The output units.

# com.inrix.sdk Class ParkingManager.ParkingInRadiusOptions

public static class **ParkingManager.ParkingInRadiusOptions** extends **ParkingManager.ParkingOptions** 

# **Fields**

### center

private com.inrix.sdk.model.GeoPoint center

#### radius

private int radius

# Constructors

# ParkingManager.ParkingInRadiusOptions

#### **Parameters:**

```
center - - see setCenter(GeoPoint)
radius - - see setRadius(int)
```

# Methods

#### setCenter

public ParkingManager.ParkingInRadiusOptions setCenter(GeoPoint center)

#### **Parameters:**

center -

Target geographical center.

#### **Returns:**

### setRadius

public ParkingManager.ParkingInRadiusOptions setRadius(int radius)

#### **Parameters:**

radius -

The radius of the circular bounding area from which return data. Any features that are fully or partially enclosed within the bounding area are selected. If the units options parameter is set to ParkingManager.UNIT.MILES, the radius is measured in meters; if units is set to ParkingManager.UNIT.MILES, the radius is measured in miles.

#### **Returns:**

# getRadius

public int getRadius()

# getCenter

public GeoPoint getCenter()

# com.inrix.sdk Class ParkingManager.ParkingInBoxOptions

public static class **ParkingManager.ParkingInBoxOptions** extends **ParkingManager.ParkingOptions** 

# **Fields**

### corner1

private com.inrix.sdk.model.GeoPoint corner1

#### corner2

private com.inrix.sdk.model.GeoPoint corner2

# Constructors

# ParkingManager.ParkingInBoxOptions

#### **Parameters:**

```
corner1 - - see setCorner1(GeoPoint)
corner2 - - see setCorner2(GeoPoint)
```

# Methods

#### setCorner1

public ParkingManager.ParkingInBoxOptions setCorner1(GeoPoint corner)

Set corner1

#### **Parameters:**

corner1 -

First corner of the region in which to get data.

#### **Returns:**

# setCorner2

public ParkingManager.ParkingInBoxOptions setCorner2(GeoPoint corner)

Set corner2

#### **Parameters:**

corner 2 - The second corner of the region in which to get data. The corner 2 parameter is the geometric opposite of corner 1.

**Returns:** 

# getCorner1

GeoPoint getCorner1()

# getCorner2

GeoPoint getCorner2()

# com.inrix.sdk Class ParkingManager.ParkingInfoOptions

public static class **ParkingManager.ParkingInfoOptions** extends **ParkingManager.ParkingOptions** 

# **Fields**

#### ids

private java.util.List ids

# Constructors

# ParkingManager.ParkingInfoOptions

public ParkingManager.ParkingInfoOptions(java.util.List ids)

#### **Parameters:**

ids - - See setIds(List)

# Methods

### setIds

public ParkingManager.ParkingInfoOptions setIds(java.util.List ids)

### **Parameters:**

ids - -

Collection of target parking lot id(s).

**Returns:** 

### getIds

```
java.util.List getIds()
```

# com.inrix.sdk Class ParkingManager.SORT\_BY

**All Implemented Interfaces:** 

java.io.Serializable, java.lang.Comparable

public static final class **ParkingManager.SORT\_BY** extends java.lang.Enum

# Fields

#### NONE

public static final com.inrix.sdk.ParkingManager.SORT\_BY NONE

No sorting is performed on results.

### **DISTANCE**

public static final com.inrix.sdk.ParkingManager.SORT\_BY DISTANCE

Results are sorted by distance.

# Constructors

### ParkingManager.SORT\_BY

private ParkingManager.SORT\_BY()

# Methods

### values

public static ParkingManager.SORT\_BY[] values()

### valueOf

public static ParkingManager.SORT\_BY valueOf(java.lang.String name)

# com.inrix.sdk Class ParkingManager.UNIT

#### **All Implemented Interfaces:**

java.io.Serializable, java.lang.Comparable

public static final class **ParkingManager.UNIT** extends java.lang.Enum

# Fields

### **MILES**

public static final com.inrix.sdk.ParkingManager.UNIT MILES

### **METERS**

public static final com.inrix.sdk.ParkingManager.UNIT METERS

# Constructors

### ParkingManager.UNIT

private ParkingManager.UNIT()

# Methods

### values

public static ParkingManager.UNIT[] values()

### valueOf

public static ParkingManager.UNIT valueOf(java.lang.String name)

# com.inrix.sdk Interface PropertyName

interface **PropertyName** extends java.lang.annotation.Annotation

# Methods

#### name

public java.lang.String name()

# com.inrix.sdk Class RouteManager

java.lang.Object

+-com.inrix.sdk.RouteManager

#### **All Implemented Interfaces:**

**IRefreshableActions** 

public final class **RouteManager** extends java.lang.Object implements **IRefreshableActions** 

# Fields

### MINIMUM\_TRAVEL\_TIME\_COUNT

private static final int MINIMUM\_TRAVEL\_TIME\_COUNT

Constant value: 1

# MAXIMUM\_TRAVEL\_TIME\_COUNT

private static final int MAXIMUM\_TRAVEL\_TIME\_COUNT

Constant value: 96

### MINIMUM TRAVEL TIME INTERVAL

private static final int MINIMUM\_TRAVEL\_TIME\_INTERVAL

Constant value: 1

### MAXIMUM\_TRAVEL\_TIME\_INTERVAL

private static final int  ${\tt MAXIMUM\_TRAVEL\_TIME\_INTERVAL}$ 

Constant value: 1440

### DEEFAULT\_INTERVAL

private static final int DEEFAULT\_INTERVAL

Constant value: 180

### Constructors

# RouteManager

public RouteManager()

# **Methods**

### getRefreshInterval

```
public int getRefreshInterval(RouteManager.ACTIONS action)
```

Return the preferred refresh interval for an action

#### **Parameters:**

action - - refresh action

#### **Returns:**

preferred refresh interval (in seconds)

### requestTravelTimes

Request Travel times for a route.

#### **Parameters:**

requestParameters - - instance of a RouteManager. TravelTimeOptions class. This contains the route id, the travel time count and travel time interval as mandatory parameters and the departure time and arrival time as optional parameters

listener - - instance of a RouteManager. ITravelTimeResponseListener class.

#### **Returns:**

### Throws:

InrixException

### requestRoutes

Takes a set of waypoints and calculates one or more routes from the first waypoint to the last waypoint, passing through other optional waypoints in turn.

#### **Returns:**

ICancellable instance or NULL if request has not been made

# com.inrix.sdk Class RouteManager.ACTIONS

#### **All Implemented Interfaces:**

java.io.Serializable, java.lang.Comparable

public static final class **RouteManager.ACTIONS** extends java.lang.Enum

# Fields

# **REQUEST\_ROUTES**

public static final com.inrix.sdk.RouteManager.ACTIONS REQUEST\_ROUTES

### REQUEST\_TRAVELTIMES

public static final com.inrix.sdk.RouteManager.ACTIONS REQUEST\_TRAVELTIMES

# Constructors

### **RouteManager.ACTIONS**

private RouteManager.ACTIONS()

# Methods

### values

public static RouteManager.ACTIONS[] values()

### valueOf

public static RouteManager.ACTIONS valueOf(java.lang.String name)

# com.inrix.sdk Interface RouteManager.ITravelTimeResponseListener

**All Superinterfaces:** 

IDataResponseListener

 $public interface \ \textbf{RouteManager.ITravelTimeResponseListener} \\ extends \ ID at a Response Listener \\$ 

Travel time result listener. Extends IDataResponseListener

# com.inrix.sdk Interface RouteManager.IRouteResponseListener

**All Superinterfaces:** 

 $\underline{IDataResponseListener}$ 

 $public\ interface\ \textbf{RouteManager.IRouteResponseListener}$  extends IDataResponseListener

route response listener

# com.inrix.sdk Class RouteManager.RouteOptions

public static class **RouteManager.RouteOptions** extends java.lang.Object

## Fields

#### start

private com.inrix.sdk.model.GeoPoint start

### end

private com.inrix.sdk.model.GeoPoint end

## waypoints

private java.util.List waypoints

#### tolerance

private int tolerance

### numAlternates

private int numAlternates

# Constructors

# RouteManager.RouteOptions

# Methods

## getStart

GeoPoint getStart()

### setStart

public RouteManager.RouteOptions setStart(GeoPoint point)

Set start point

**Parameters:** 

point

**Returns:** 

# getEnd

GeoPoint getEnd()

### setEnd

public RouteManager.RouteOptions setEnd(GeoPoint point)

Set end point

**Parameters:** 

end

**Returns:** 

### getWaypoints

java.util.List getWaypoints()

## setWaypoints

```
public RouteManager.RouteOptions throws InrixException
setWaypoints(java.util.List waypoints)
```

Set optional waypoints. Route through these waypoints will be returned. Maximum number of waypoints is 8. If one or more way points are invalid this method throws an InrixException

#### **Parameters:**

waypoints

**Returns:** 

**Throws:** 

InrixException

### getTolerance

int getTolerance()

### setTolerance

public RouteManager.RouteOptions setTolerance(int tolerance)

Set tolerance. Tolerance reduces the number of latitude/longitude points returned. This value should be greater than or equal to 0 and is specified in yards for English units and meters for metric units. The default is 0, which means exact (no inaccuracy is tolerated), and results in the entire Points set being returned. Higher values will reduce the number of points by eliminating points whose distance from each other is less than the specified tolerance. Based on the level of zoom used to draw the map, you can save bandwidth by reducing the size of the return payload. For example, if the map is zoomed to a 300-mile level, you may want to return fewer data points.

#### **Parameters:**

tolerance

**Returns:** 

### getNumAlternates

int getNumAlternates()

#### setNumAlternates

public RouteManager.RouteOptions setNumAlternates(int numAlternates)

Determines the number of alternate routes calculated. By default, only one route is returned but you can request up to 2 alternates. If all the routes have closures and cannot be driven, the third route returned is replaced with a fastest trafficaware route that is navigable. In other words, no matter what the conditions are on the primary (and maybe secondary) routes, the API always returns at least one navigable route.

#### **Parameters:**

numAlternates

**Returns:** 

### areWayPointsValid

private boolean areWayPointsValid(java.util.List wayPointsList)

Function to check the way points list to make sure that the way points passed in are valid GeoPoints

#### **Parameters:**

wayPointsList - - the list of way points to check

### **Returns:**

true if all the way points are valid false if even one of the way points passed in are invalid

# com.inrix.sdk Class RouteManager.TravelTimeOptions

public static class **RouteManager.TravelTimeOptions** extends java.lang.Object

Class representing the Travel Time Request Options for the server. The mandatory parameters are the route ID, travel time count and travel time interval. Optional Parameters are Departure time - defaults to NOW Arrival Time - ignored if the departure time is specified.

### **Fields**

#### route

private com.inrix.sdk.model.Route route

A valid route for which to return traffic and routing information.

### travelTimeCount

private int travelTimeCount

The number of travel times you want to be returned for this route. Must be a value greater than 0, but less than or equal to 96.

### travelTimeInterval

private int travelTimeInterval

The time span (in Minutes) between the travel times specified in TravelTimeCount. Must be a value greater than 0, but less than or equal to 1440 minutes.

### departureTime

private java.util.Date departureTime

Optional: The time of departure. Defaults to 'now' if not specified. DepartureTime must be within one year from the time of the API call, and must occur in the future. The date format must be in the form YYYY-MM-DDTHH:MM:SSZ; for example 2009-04-04T13:42:41Z.

### arrivalTime

private java.util.Date arrivalTime

Optional: The time of arrival. Ignored if DepartureTime is specified. ArrivalTime must be within one year from the time of the API call, and must occur in the future. The date format must be in the form YYYY-MM-DDTHH:MM:SSZ; for example 2009-04-04T13:42:41Z.

### Constructors

## **RouteManager.TravelTimeOptions**

Constructor

#### **Parameters:**

route - - The route object. This is obtained from a route find call before travelTimeCount - - How many travel times are requested. (minimum = 1 maximum = 96) travelTimeInterval - - what is the interval between travel times in minutes (minimum = 1 maximum = 1440)

# Methods

### getRoute

```
public Route getRoute()
```

Get the route for the travel time request options

#### **Returns:**

- the route object for this travel time request

#### setRoute

```
public void setRoute(Route route)
```

Set the route object for the travel time request options

#### **Parameters:**

route - - The route object to set for this travel time request

## getDepartureTimeString

```
public java.lang.String getDepartureTimeString()
```

Get the departure time as a String

#### Returns

- the departure date/time

## setDepartureTime

```
public void setDepartureTime(java.util.Date departureTime)
```

Set the departure time

### **Parameters:**

departureTime - The time of departure. Defaults to now if not specified. DepartureTime must be within one year from the time of the API call, and must occur in the future. **This is an optional parameter** 

### getArrivalTimeString

```
public java.lang.String getArrivalTimeString()
```

Get the arrival time as a String

#### **Returns:**

- the arrival date/time

### setArrivalTime

public void setArrivalTime(java.util.Date arrivalTime)

Set the arrival time

#### **Parameters:**

arrivalTime - The time of arrival. Ignored if DepartureTime is specified. ArrivalTime must be within one year from the time of the API call, and must occur in the future. **This is an optional parameter** 

#### **Returns:**

- the arrival date/time

### getTravelTimeCount

public int getTravelTimeCount()

Get the travel time count

#### **Returns:**

- the travel time count

### setTravelTimeCount

public void setTravelTimeCount(int travelTimeCount)

Set the travel time count

#### **Parameters:**

travelTimeCount

### getTravelTimeInterval

public int getTravelTimeInterval()

Get the travel time interval

**Returns:** 

### setTravelTimeInterval

public void setTravelTimeInterval(int travelTimeInterval)

Set the travel times interval. At what interval you want the different start times

#### **Parameters:**

travelTimeInterval

### **isTravelTimeCountValid**

public boolean isTravelTimeCountValid()

Method to validate if the travel time count is valid

**Returns:** 

true if the travel time count is valid false if not. Valid values between 1 and 96 inclusive

### **isTravelTimeIntervalValid**

public boolean isTravelTimeIntervalValid()

Method to validate if the travel time interval is valid

#### **Returns:**

true if the travel time interval is valid false if not. Valid values between 1 and 1440 minutes inclusive

### isRouteValid

public boolean isRouteValid()

Method to check that the route specified in this travel time request is valid A Valid route is not null, has route points and has at least two points in it.

#### **Returns:**

- true if the route is valid - false if the route is not valid

# com.inrix.sdk Class Settings

**Direct Known Subclasses:** 

**InrixConfig** 

abstract class **Settings** extends java.lang.Object

The Class settings, read configuration from properties file

## Constructors

### **Settings**

Settings()

## Methods

## loadFromProperties

public void loadFromProperties(Context paramContext)

## loadFromProperties

### isValid

public abstract boolean isValid()

## getDefaultPropertiesFilename

public abstract java.lang.String getDefaultPropertiesFilename()

# com.inrix.sdk Class TileManager

**All Implemented Interfaces:** 

**IRefreshableActions** 

public final class **TileManager** extends java.lang.Object implements **IRefreshableActions** 

Contains APIs to obtain traffic tiles.

# **Fields**

### **GET\_TRAFFIC\_TILE\_INTERVAL**

private static final int GET\_TRAFFIC\_TILE\_INTERVAL

Constant value: 90

### **ACTION**

private static final java.lang.String ACTION

Constant value: Mobile.Tile

### TILE\_FORMAT\_NAME\_PNG

private static final java.lang.String TILE\_FORMAT\_NAME\_PNG

Constant value: PNG

### TILE\_FORMAT\_NAME\_GIF

private static final java.lang.String TILE\_FORMAT\_NAME\_GIF

Constant value: GIF

### TILE LAYER TILE

private static final java.lang.String TILE\_LAYER\_TILE

Constant value: T

### ERROR MESSAGE INVALID OPACITY

private static final java.lang.String ERROR\_MESSAGE\_INVALID\_OPACITY

Constant value: Opacity value is out of range. Should be between 0 and 100.

### ERROR\_MESSAGE\_QUADKEY\_EMPTY

private static final java.lang.String ERROR\_MESSAGE\_QUADKEY\_EMPTY

Constant value: Quad key value cannot be empty.

### ERROR\_MESSAGE\_INVALID\_PEN\_WIDTH

private static final java.lang.String ERROR\_MESSAGE\_INVALID\_PEN\_WIDTH

Constant value: Pen width must a positive value.

### ERROR MESSAGE UNKNOWN FORMAT

private static final java.lang.String ERROR\_MESSAGE\_UNKNOWN\_FORMAT

Constant value: Unsupported traffic tile format.

### ERROR MESSAGE INVALID COVERAGE

private static final java.lang.String ERROR\_MESSAGE\_INVALID\_COVERAGE

Constant value: Invalid colverage value.

### ERROR MESSAGE INVALID FRC LEVEL

private static final java.lang.String ERROR\_MESSAGE\_INVALID\_FRC\_LEVEL

Constant value: Invalid FRC level.

### ERROR\_MESSAGE\_INVALID\_CENTER

private static final java.lang.String ERROR\_MESSAGE\_INVALID\_CENTER

Constant value: Invalid center coordinate.

### ERROR\_MESSAGE\_INVALID\_CORNER1

private static final java.lang.String ERROR\_MESSAGE\_INVALID\_CORNER1

Constant value: Invalid corner 1 coordinate.

### ERROR MESSAGE INVALID CORNER2

 $\verb|private static final java.lang.String \verb| ERROR_MESSAGE_INVALID_CORNER2| \\$ 

Constant value: Invalid corner 2 coordinate.

### ERROR MESSAGE INVALID ZOOM

private static final java.lang.String ERROR\_MESSAGE\_INVALID\_ZOOM

Constant value: Invalid zoom level. Must be between 0 and 21.

### ERROR\_MESSAGE\_INVALID\_WIDTH

private static final java.lang.String ERROR\_MESSAGE\_INVALID\_WIDTH

Constant value: Tile width should be positive.

### ERROR MESSAGE INVALID HEIGHT

private static final java.lang.String ERROR\_MESSAGE\_INVALID\_HEIGHT

Constant value: Tile height should be positive

### ERROR\_MESSAGE\_INVALID\_TILE\_X

private static final java.lang.String ERROR\_MESSAGE\_INVALID\_TILE\_X

Constant value: Invalid tile X value.

### ERROR\_MESSAGE\_INVALID\_TILE\_Y

private static final java.lang.String ERROR\_MESSAGE\_INVALID\_TILE\_Y

Constant value: Invalid tile Y value.

### MIN LATITUDE

private static final double MIN\_LATITUDE

Constant value: -85.05112878

### MAX\_LATITUDE

private static final double MAX\_LATITUDE

Constant value: 85.05112878

### MIN\_LONGITUDE

private static final double MIN\_LONGITUDE

Constant value: -180.0

### MAX\_LONGITUDE

private static final double MAX\_LONGITUDE

Constant value: 180.0

### MIN\_OPACITY\_VALUE

private static final int MIN\_OPACITY\_VALUE

Constant value: 0

### MAX\_OPACITY\_VALUE

private static final int MAX\_OPACITY\_VALUE

Constant value: 100

### MIN\_ZOOM

private static final int MIN\_ZOOM

Constant value: 0

### MAX\_ZOOM

private static final int MAX\_ZOOM

Constant value: 21

### TILE\_DEFAULT\_WIDTH

public static final int TILE\_DEFAULT\_WIDTH

Default traffic tile width. Constant value: .

Constant value: 256

## TILE\_DEFAULT\_HEIGHT

public static final int TILE\_DEFAULT\_HEIGHT

Default traffic tile height. Constant value: .

Constant value: 256

## TILE\_DEFAULT\_OPACITY

public static final int TILE\_DEFAULT\_OPACITY

Default tile opacity. Constant value: .

Constant value: 60

### TILE\_DEFAULT\_PEN\_WIDTH

public static final int TILE\_DEFAULT\_PEN\_WIDTH

Default tile pen width. Constant value: .

Constant value: 4

### TILE\_FORMAT\_PNG

public static final int TILE\_FORMAT\_PNG

Return the tile in PNG format. Constant value: .

Constant value: 0

## TILE\_FORMAT\_GIF

public static final int TILE\_FORMAT\_GIF

Return the tile in GIF format. Constant value: .

Constant value: 1

### TILE\_FRC\_LEVEL\_1

public static final int TILE\_FRC\_LEVEL\_1

First class roads, such as national highway network roads. Constant value: .

Constant value: 1

## TILE\_FRC\_LEVEL\_2

public static final int TILE\_FRC\_LEVEL\_2

Second class roads, such as state highway network roads. Constant value: .

Constant value: 2

### TILE\_FRC\_LEVEL\_3

public static final int TILE\_FRC\_LEVEL\_3

Third class roads, such as state interconnecting network roads. Constant value: .

Constant value: 4

### TILE\_FRC\_LEVEL\_4

public static final int TILE\_FRC\_LEVEL\_4

Fourth class roads, such as major connecting roads. Constant value: .

Constant value: 8

## TILE\_FRC\_LEVEL\_5

public static final int TILE\_FRC\_LEVEL\_5

Fifth class roads, such as minor roads connecting suburbs. Constant value: .

Constant value: 16

### TILE FRC LEVEL 6

public static final int TILE\_FRC\_LEVEL\_6

Sixth class roads, such as destination and destination collector roads. Constant value: .

Constant value: 32

### TILE\_FRC\_LEVEL\_7

public static final int TILE\_FRC\_LEVEL\_7

Seventh class roads, such as destination dead-end roads. Constant value: .

Constant value: 64

### TILE FRC LEVEL ALL

public static final int TILE\_FRC\_LEVEL\_ALL

Report all road types. Constant value: .

Constant value: 255

### TILE COVERAGE REALTIME CORE

public static final int TILE\_COVERAGE\_REALTIME\_CORE

Real-time core coverage. Constant value: .

Constant value: 1

### TILE\_COVERAGE\_REALTIME\_EXTENDED

public static final int TILE\_COVERAGE\_REALTIME\_EXTENDED

Real-time extended coverage. Constant value: .

Constant value: 4

### TILE COVERAGE REALTIME CORE EXTENDED

public static final int TILE\_COVERAGE\_REALTIME\_CORE\_EXTENDED

Real-time core + extended coverage. Constant value: .

Constant value: 8

### TILE COVERAGE REFERENCE

public static final int TILE\_COVERAGE\_REFERENCE

Reference coverage. Constant value: .

Constant value: 32

### TILE\_COVERAGE\_HISTORICAL

public static final int TILE\_COVERAGE\_HISTORICAL

Historical coverage. Constant value: .

Constant value: 48

### TILE\_COVERAGE\_ALL

public static final int TILE\_COVERAGE\_ALL

Return all types of coverage. Constant value: .

Constant value: 255

## Constructors

## TileManager

```
public TileManager()
```

## **Methods**

### getRefreshInterval

```
public int getRefreshInterval(TileManager.ACTIONS action)
```

Return the preferred refresh interval for an action

#### **Parameters:**

action - - refresh action

#### **Returns:**

preferred refresh interval (in seconds)

### getTrafficTileUrl

Creates a url to obtain a traffic tile bitmap.

#### **Parameters:**

x -

Traffic tile X coordinate.

У-

Traffic tile Y coordinate.

zoom -

Current zoom level

options -

Tile configuration options.

#### **Returns:**

The url that can be used to obtain the traffic tile.

## getTrafficTileUrl

Creates a url to obtain a traffic tile bitmap.

### **Parameters:**

```
corner1 -
```

The first corner of the region in which to get data. This parameter must be specified as a pair of latitude and longitude values. The latitude and longitude values are expressed using the WGS 84 datum. Northern latitudes are positive and southern latitudes are negative. Eastern hemisphere longitudes are positive and western hemisphere longitudes are negative. Longitudes in North America are negative. The corner specified by the Corner1 parameter can be any of the four corners of the bounding rectangle.

corner2 -

The second corner of the region in which to get data. The Corner2 parameter is the geometric opposite of Corner1. options -

Tile configuration options.

#### **Returns:**

The url that can be used to obtain the traffic tile.

### getTrafficTileUrl

```
public final java.lang.String getTrafficTileUrl(GeoPoint center,
    int zoom,
    int north,
    int east,
    TileManager.TileOptions options)
```

Creates a url to obtain a traffic tile bitmap.

#### **Parameters:**

center -

The center of the region in which to get data. This parameter must be specified as a pair of latitude and longitude values. Northern latitudes are positive and southern latitudes are negative. Eastern hemisphere longitudes are positive and western hemisphere longitudes are negative. Longitudes in North America are negative. The latitude and longitude values are expressed using the WGS 84 datum.

zoom -

An integer between 0 and 21 where 0 is zoomed out to cover the full globe, and 21 is the maximum zoom level. Note that some zoom levels may be too high or too low for Mobile. Tile to return an image.

This parameter moves the tile's position North by one tile's height. Negative values move the tile South. Use in combination with Center, Zoom, and East.

east -

This parameter moves the tile's position East by one tile's width. Negative values move the tile West. Use in combination with Center, Zoom, and North. options -

Tile configuration options.

#### **Returns:**

The url that can be used to obtain the traffic tile.

## getTrafficTileUrl

Creates a url to obtain a traffic tile bitmap.

#### **Parameters:**

quadKey -

A virtual earth quad key to generate a resulting 256 x 256 tile which represents the described area.

```
options -
```

Tile configuration options.

#### **Returns:**

The url that can be used to obtain the traffic tile.

### getUriBuilderWithCommonParameters

```
 \begin{array}{ccc} \texttt{private} & \texttt{Uri.Builder} & \textbf{getUriBuilderWithCommonParameters} ( \underline{\texttt{GeoPoint}} & \texttt{point}, \\ \underline{\texttt{TileManager.TileOptions}} & \texttt{options}) \end{array}
```

## quadKeyToGeoPoint

```
public final static GeoPoint quadKeyToGeoPoint(java.lang.String quadKey)
```

Converts quad key into a GeoPoint instance with latitude/longitude values.

#### **Parameters:**

quadKey -

Target quad key value.

#### **Returns:**

GeoPoint instance with latitude/longitude resolved from quad key.

## geoPointToQuadKey

Converts GeoPoint value to quad key.

#### **Parameters:**

point -

GeoPoint value to be converted.

zoomLevel -

Current zoom level.

#### **Returns:**

Quad key value obtained from specified GeoPoint.

## latLongToPixelXY

Converts a point from latitude/longitude WGS-84 coordinates (in degrees) into pixel XY coordinates at a specified level of detail.

#### **Parameters:**

latitude -

Latitude of the point, in degrees.

longitude -

Longitude of the point, in degrees.

```
zoomLevel -
```

Level of detail, from 1 (lowest detail) to 23 (highest detail).

#### **Returns:**

Pair of pixel X/Y values.

## pixelXYToTileXY

Converts pixel XY coordinates into tile XY coordinates of the tile containing the specified pixel.

#### **Parameters:**

```
pixelX -
```

Pixel X coordinate.

pixelY -

Pixel Y coordinate.

#### **Returns:**

Pair of tile X/Y values.

## tileXYtoQuadKey

Converts tile XY coordinates into a QuadKey at a specified level of detail.

#### **Parameters:**

```
tileX-
```

Tile X coordinate.

tileY -

Tile Y coordinate.

zoomLevel -

Level of detail, from 1 (lowest detail) to 23 (highest detail).

#### **Returns:**

A string containing the QuadKey.

### quadKeyToTileXY

```
private static <any> quadKeyToTileXY(java.lang.String quadKey)
```

Converts a QuadKey into tile XY coordinates.

#### **Parameters:**

quadKey -

QuadKey of the tile.

#### **Returns:**

Conversion results. First parameter is a pair of tile X/Y values, second is zoom level.

### tileXYToPixelXY

Converts tile XY coordinates into pixel XY coordinates of the upper-left pixel of the specified tile.

#### **Parameters:**

tileX Tile X coordinate.

tileY-

Tile Y coordinate.

#### **Returns:**

Pair of pixel X/Y values.

### pixelXYToLatLong

Converts a pixel from pixel XY coordinates at a specified level of detail into latitude/longitude WGS-84 coordinates (in degrees).

#### **Parameters:**

pixelX -

X coordinate of the point, in pixels. pixely -

\_

Y coordinates of the point, in pixels.

zoomLevel -

Level of detail, from 1 (lowest detail) to 23 (highest detail).

#### **Returns:**

GeoPoint instance with latitude / longitude.

## clip

Clips a number to the specified minimum and maximum values.

#### **Parameters:**

n -

The number to clip. minValue -

Minimum allowable value.

maxValue -

Maximum allowable value.

### **Returns:**

The clipped value.

## mapSize

private final static int mapSize(int zoomLevel)

Determines the map width and height (in pixels) at a specified level of detail.

#### **Parameters:**

zoomLevel -

Level of detail, from 1 (lowest detail) to 23 (highest detail).

#### **Returns:**

The map width and height in pixels.

## validateQuadKey

private final static void validateQuadKey(java.lang.String quadKey)

## validateOpacity

private final static void validateOpacity(int opacity)

#### validatePenWidth

private final static void validatePenWidth(int penWidth)

### validateFormat

private final static void validateFormat(int format)

### validateCoverage

private final static void validateCoverage(int coverage)

### validateFrcLevel

private final static void validateFrcLevel(int frcLevel)

### validateZoom

private final static void validateZoom(int zoom)

### validateGeoPoint

### validateWidth

private final static void validateWidth(int width)

## validateHeight

private final static void validateHeight(int height)

## resolveRegion

private final static InrixRequest.ServerRegion resolveRegion(GeoPoint point)

### resolveFormat

private final static java.lang.String resolveFormat(int type)

### resolveFrcLevel

private final static java.lang.String resolveFrcLevel(int frcLevel)

# com.inrix.sdk Class TileManager.ACTIONS

#### **All Implemented Interfaces:**

java.io.Serializable, java.lang.Comparable

public static final class **TileManager.ACTIONS** extends java.lang.Enum

## Fields

## **GET\_TRAFFIC\_TILE**

public static final com.inrix.sdk.TileManager.ACTIONS GET\_TRAFFIC\_TILE

## Constructors

## **TileManager.ACTIONS**

private TileManager.ACTIONS()

## Methods

### values

public static TileManager.ACTIONS[] values()

### valueOf

public static TileManager.ACTIONS valueOf(java.lang.String name)

# com.inrix.sdk Class TileManager.TileOptions

public static final class **TileManager.TileOptions** extends java.lang.Object

An object through which you can provide a configuration for the tile.

# Fields

## NO\_VALUE

static final int NO\_VALUE

Constant value: -1

### width

private int width

## height

private int height

### opacity

private int opacity

### penWidth

private int penWidth

### **format**

private int format

### frcLevel

private int frcLevel

### coverage

private int coverage

### speedBucketId

private int speedBucketId

## Constructors

## TileManager.TileOptions

```
public TileManager.TileOptions()
```

Initializes a new instance of TileOptions.

## **TileManager.TileOptions**

```
public TileManager.TileOptions(TileManager.TileOptions in)
```

Initializes a new instance of TileOptions using another instance.

#### **Parameters:**

in - An instance to initialize TileManager. TileOptions from.

# Methods

### getAction

```
final java.lang.String getAction()
```

Action name for a current operation.

#### **Returns:**

Action name for the current operation.

### setWidth

```
public final TileManager.TileOptions setWidth(int width)
```

Sets the tile width. Default value: TileManager.TILE\_DEFAULT\_WIDTH.

#### **Parameters:**

width-

Traffic tile width.

### **Returns:**

Current instance.

## getWidth

```
final int getWidth()
```

Gets the tile width.

#### **Returns:**

Tile width.

## setHeight

```
public final TileManager.TileOptions setHeight(int height)
```

Sets the height of the tile. Default value: TileManager.TILE\_DEFAULT\_HEIGHT.

#### **Parameters:**

height -

Traffic tile height.

#### **Returns:**

Current instance.

### getHeight

```
final int getHeight()
```

Gets the height of the tile.

#### **Returns:**

Tile height.

## setOpacity

```
public final TileManager.TileOptions setOpacity(int opacity)
```

Sets the opacity for the tile. Default value: <a href="mailto:Tile\_default\_opacity">Tile\_default\_opacity</a>.

#### **Parameters:**

opacity-

Traffic tile opacity. Values should be in the range from 0 to 100.

#### **Returns:**

Current instance.

### getOpacity

```
final int getOpacity()
```

Gets the tile opacity.

### **Returns:**

Tile opacity.

### setPenWidth

```
public final TileManager.TileOptions setPenWidth(int penWidth)
```

Sets a pen width for the tile. Default value: TileManager.TILE\_DEFAULT\_PEN\_WIDTH.

#### **Parameters:**

penWidth -

The pen width of the traffic overlay, in pixels.

#### **Returns:**

Current instance.

### getPenWidth

```
final int getPenWidth()
```

Gets a pen width.

#### **Returns:**

Pen width.

### setFormat

```
public final TileManager.TileOptions setFormat(int format)
```

Sets the format of the tile. Default value: TileManager.TILE\_FORMAT\_GIF.

#### **Parameters:**

format -

The format of the traffic tile to be returned.

Supported values are: TileManager.TILE\_FORMAT\_PNG or TileManager.TILE\_FORMAT\_GIF.

#### **Returns:**

Current instance.

### getFormat

```
final int getFormat()
```

Gets the tile format.

#### **Returns:**

Current tile format.

### setFrcLevel

```
public final TileManager.TileOptions setFrcLevel(int frcLevel)
```

Sets the FRC level(s) for a tile. Default value: TileManager.TILE\_FRC\_LEVEL\_ALL.

#### **Parameters:**

frcLevel -

The Federal Road Classification code of the TMCs to return. Can be one or a combination of the following values:

- TileManager.TILE\_FRC\_LEVEL\_ALL
- TileManager.TILE\_FRC\_LEVEL\_1
- TileManager.TILE\_FRC\_LEVEL\_2
- TileManager.TILE\_FRC\_LEVEL\_3
- TileManager.TILE\_FRC\_LEVEL\_4
- TileManager.TILE\_FRC\_LEVEL\_5
- TileManager.TILE\_FRC\_LEVEL\_6
- TileManager.TILE\_FRC\_LEVEL\_7

#### **Returns:**

Current instance.

### getFrcLevel

final int getFrcLevel()

Gets the tile FRC level.

#### **Returns:**

Tile FRC level.

### setCoverage

public final TileManager.TileOptions setCoverage(int coverage)

Sets the coverage for a tile. Default value is specified per vendor.

#### **Parameters:**

coverage -

Indicates the type of coverage to return: core or extended. The default is specified per vendor.

- TileManager.TILE\_COVERAGE\_ALL
- TileManager.TILE\_COVERAGE\_HISTORICAL
- TileManager.TILE\_COVERAGE\_REALTIME\_CORE
- TileManager.TILE\_COVERAGE\_REALTIME\_CORE\_EXTENDED
- TileManager.TILE\_COVERAGE\_REALTIME\_EXTENDED
- TileManager.TILE\_COVERAGE\_REFERENCE

#### **Returns:**

Current instance.

### getCoverage

final int getCoverage()

Gets a coverage value for a tile.

**Returns:** 

Tile coverage value.

## setSpeedBucketId

public final TileManager.TileOptions setSpeedBucketId(int speedBucketId)

Sets a speed bucket id for a tile.

#### **Parameters:**

speedBucketId -

A speed bucket is a range of speeds or percentages that is used to categorize TMC data.

#### **Returns:**

Current instance.

# getSpeedBucketId

final int getSpeedBucketId()

Gets a speed bucket id for a tile.

#### **Returns:**

Tile speed bucket id.

# com.inrix.sdk Class UserManager

public class **UserManager** extends java.lang.Object

The UserManager, allows to execute user related operation.

## **Fields**

### testRegisterCall

private com.inrix.sdk.network.request.UserRegisterRequest testRegisterCall

## Constructors

## UserManager

public UserManager()

## Methods

### isUserAvailable

```
\frac{\text{ICancellable}}{\text{UserManager.ILoginOperationResponseListener}} \underbrace{\frac{\text{ICancellable}}{\text{UserManager.ILoginOperationResponseListener}}}_{\text{InrixException}} \text{params,}
```

Checks if is user available.

#### **Parameters:**

listener - the listener, of operation result params - request params

#### **Returns:**

the ICancellable interface to cancel action

### registerUser

```
\frac{\text{ICancellable } \textbf{registerUser} (\text{UserManager.RegisterUserOptions}}{\text{UserManager.ILoginOperationResponseListener}} \ \text{params,} \\ \text{throws } \overline{\text{InrixException}}
```

Register user

#### Parameters:

listener - the listener, for operation result

```
params - - request params
```

#### **Returns:**

the ICancellable interface to cancel action

### logOut

```
public boolean logOut()
```

Log out, clear local user cache.

#### **Returns:**

true, if successful

### isLoggedIn

```
public boolean isLoggedIn()
```

Checks if is logged in.

#### **Returns:**

true, if is logged in

### resetPassword

```
\frac{\text{ICancellable } \textbf{resetPassword}(\underline{\textbf{UserManager}.\textbf{ResetPasswordOptions}}}{\underline{\textbf{UserManager}.\textbf{ILoginOperationResponseListener}}} \ \text{params,} \\ \text{throws } \overline{\textbf{InrixException}}
```

Reset password if email exists in a system, otherwise error

#### **Parameters:**

```
listener - the listener, for operation result params - - request params
```

#### **Returns:**

the ICancellable interface to cancel action

### changePassword

```
\frac{\text{ICancellable } change \texttt{Password} (\texttt{UserManager.Change} \texttt{Password} \texttt{Options}}{\texttt{UserManager.ILogin} \texttt{Operation} \texttt{ResponseListener}} \ \texttt{listener})} \ \texttt{throws} \ \frac{\texttt{ICancellable } \texttt{Change} \texttt{Password} \texttt{Options}}{\texttt{InrixException}} \ \texttt{InrixException}}
```

Changes user password.

#### **Parameters:**

```
listener - the listener, for operation result params - - request params
```

#### **Returns:**

the ICancellable interface to cancel action

### getRegisterCall

```
public UserRegisterRequest getRegisterCall()
```

# com.inrix.sdk Class UserManager.EmailOptions

**Direct Known Subclasses:** 

 $Register User Options \,, \ Reset Password Options \,, \ Is User Available Options$ 

private static class **UserManager.EmailOptions** extends java.lang.Object

## Fields

#### email

private java.lang.String email

## Constructors

## **UserManager.EmailOptions**

public UserManager.EmailOptions(java.lang.String email)

#### **Parameters:**

email

# Methods

## getEmail

java.lang.String getEmail()

### setEmail

public UserManager.EmailOptions setEmail(java.lang.String email)

email address to check

#### **Parameters:**

email

**Returns:** 

# com.inrix.sdk Class UserManager.IsUserAvailableOptions

public static class **UserManager.IsUserAvailableOptions** extends **UserManager.EmailOptions** 

## Constructors

## UserManager.IsUserAvailableOptions

public UserManager.IsUserAvailableOptions(java.lang.String email)

# com.inrix.sdk Class UserManager.ResetPasswordOptions

public static class **UserManager.ResetPasswordOptions** extends **UserManager.EmailOptions** 

## Constructors

## **UserManager.ResetPasswordOptions**

public UserManager.ResetPasswordOptions(java.lang.String email)

# com.inrix.sdk Class UserManager.RegisterUserOptions

public static class **UserManager.RegisterUserOptions** extends **UserManager.EmailOptions** 

## Fields

### password

private java.lang.String password

## Constructors

## UserManager.RegisterUserOptions

# Methods

## getPassword

java.lang.String getPassword()

### setPassword

public UserManager.RegisterUserOptions setPassword(java.lang.String password)

# com.inrix.sdk Class UserManager.ChangePasswordOptions

public static class **UserManager.ChangePasswordOptions** extends java.lang.Object

## Fields

### oldPassword

private java.lang.String oldPassword

### newPassword

private java.lang.String newPassword

### Constructors

## UserManager.ChangePasswordOptions

# Methods

## getOldPassword

java.lang.String getOldPassword()

### setOldPassword

public UserManager.ChangePasswordOptions setOldPassword(java.lang.String oldPassword)

### getNewPassword

java.lang.String getNewPassword()

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201		- vv	1	-> W	.,,	

public UserManager.ChangePasswordOptions setNewPassword(java.lang.String newPassword)

# com.inrix.sdk Interface UserManager.ILoginOperationResponseListener

**All Superinterfaces:** 

**IDataResponseListener** 

public interface **UserManager.ILoginOperationResponseListener** extends **IDataResponseListener** 

The listener interface for receiving ILoginOperationResponse events. The class that is interested in processing a ILoginOperationResponse event implements this interface, and the object created with that class is registered with a component using the component's addlLoginOperationResponseListener method. When the ILoginOperationResponse event occurs, that object's appropriate method is invoked.

See Also:

ILoginOperationResponseEvent

# com.inrix.sdk Class UserManager.LoginProcessor

**All Implemented Interfaces:** 

**ICancellable** 

private class **UserManager.LoginProcessor** extends java.lang.Object implements **ICancellable** 

The Class LoginProcessor, 2 step login process

## **Fields**

#### callback

private final com.inrix.sdk.UserManager.ILoginOperationResponseListener callback

## registerCall

private com.inrix.sdk.network.request.UserRegisterRequest registerCall

## authRequest

private com.inrix.sdk.network.request.internal.DeviceAuthRequest authRequest

## Constructors

## UserManager.LoginProcessor

Instantiates a new login processor.

#### **Parameters:**

loginCallback - the login callback

# Methods

#### process

Start login process

#### **Parameters:**

email - the email password - the password

## auth

private void auth()

Send DeviceAuth request

## cancel

public void cancel()

# Package com.inrix.sdk.exception

# com.inrix.sdk.exception Class InrixException

#### **All Implemented Interfaces:**

java.io.Serializable

#### public class InrixException

extends java.security.InvalidParameterException

# **Fields**

## serialVersionUID

private static final long serialVersionUID

Serialization version number (1.0)

Constant value: 10

#### INVALID GEOPOINT

public static final int INVALID\_GEOPOINT

Error code definitions Constant value: **1001** 

## CALLBACK\_MISSING

public static final int CALLBACK\_MISSING

Constant value: 1002

## REQUEST\_OPTIONS\_MISSING

public static final int REQUEST\_OPTIONS\_MISSING

Constant value: 1003

#### **INVALID RADIUS**

public static final int INVALID\_RADIUS

Constant value: 1004

## INVALID\_GAS\_STATION\_ID

public static final int INVALID\_GAS\_STATION\_ID

Constant value: 1005

#### INVALID\_INTERVAL

public static final int INVALID\_INTERVAL

Constant value: 1006

## INVALID\_SPEED\_FACTOR

public static final int INVALID\_SPEED\_FACTOR

Constant value: 1007

#### INVALID\_IDS\_LIST

public static final int INVALID\_IDS\_LIST

Constant value: 1008

## INVALID\_OUTPUT\_FIELDS

public static final int INVALID\_OUTPUT\_FIELDS

Constant value: 1009

#### **INVALID EMAIL FORMAT**

public static final int INVALID\_EMAIL\_FORMAT

Constant value: 1010

#### INVALID\_EMAIL

public static final int  ${\bf INVALID\_EMAIL}$ 

Constant value: 1011

#### INVALID\_PASSWORD

public static final int INVALID\_PASSWORD

Constant value: 1012

## INVALID\_NEW\_PASSWORD

public static final int INVALID\_NEW\_PASSWORD

Constant value: 1013

## **USER\_LOGGED\_IN**

public static final int USER\_LOGGED\_IN

Constant value: 1014

#### NOT\_LOGGED\_IN

public static final int NOT\_LOGGED\_IN

Constant value: 1015

#### INVALID\_START\_POINT

public static final int INVALID\_START\_POINT

Constant value: 1016

#### INVALID\_END\_POINT

public static final int INVALID\_END\_POINT

Constant value: 1017

## INVALID\_TOLERANCE

public static final int INVALID\_TOLERANCE

Constant value: 1018

#### INVALID\_WAY\_POINTS

public static final int INVALID\_WAY\_POINTS

Constant value: 1019

# INVALID\_TRAVEL\_TIME\_COUNT

public static final int INVALID\_TRAVEL\_TIME\_COUNT

Constant value: 1020

## INVALID\_TRAVEL\_TIME\_INTERVAL

public static final int INVALID\_TRAVEL\_TIME\_INTERVAL

Constant value: 1021

#### INVALID\_TRAVEL\_TIME\_ROUTE

public static final int INVALID\_TRAVEL\_TIME\_ROUTE

Constant value: 1022

#### errorCode

private int errorCode

error code

## errorMessage

private java.lang.String errorMessage

error message

#### errorMessageMap

private static java.util.HashMap errorMessageMap

private java.util.HashMap of error codes and error messages

#### Constructors

## **InrixException**

public InrixException(int errorCode)

Constructor

#### **Parameters:**

errorCode - - the error code to initialize the exception with. This will initialize the error message of the java.security.InvalidParameterException

# Methods

#### getErrorCode

public int getErrorCode()

Get the error code of this exception

#### **Returns:**

- the error code that caused the exception

#### getErrorMessage

public java.lang.String getErrorMessage()

Get the message associated with the error code

#### **Returns:**

- the error message. If the error is not defined the method returns Unknown error code where is the error code

## getErrorMessageString

private static java.lang.String getErrorMessageString(int errorCode)

return the error message for a defined error code. If the error is not registered this will return a unknown error code message with the error code

#### **Parameters:**

errorCode - - the error code for which the error message is requested

#### **Returns:**

- the error message if found else return a Unknown error message

# InitializeErrorMap

private static java.util.HashMap InitializeErrorMap()

Initialize the error message map with the error codes and error messages

#### **Returns:**

# Package com.inrix.sdk.model

# com.inrix.sdk.model Class DeviceAuth

public class **DeviceAuth** extends JSONEntityBase

## **Fields**

## **INRIX TIME FORMAT**

private final java.lang.String INRIX\_TIME\_FORMAT

Constant value: yyyy-MM-dd'T'HH:mm:ss'Z'

## INRIX\_DEFAULT\_TIMEZONE

private final java.lang.String INRIX\_DEFAULT\_TIMEZONE

Constant value: UTC

## expirationDate

private java.util.Date expirationDate

#### entity

private com.inrix.sdk.model.DeviceAuth.DeviceAuthEntity entity

## Constructors

#### **DeviceAuth**

# Methods

# getEntity

public DeviceAuth.DeviceAuthEntity getEntity()

# isExpired

public boolean isExpired()

# getExpirationDate

public java.util.Date getExpirationDate()

# set Expiration Date

public void setExpirationDate(java.util.Date value)

# com.inrix.sdk.model Class DeviceAuth.DeviceAuthEntity

public class **DeviceAuth.DeviceAuthEntity** extends java.lang.Object

# **Fields**

#### token

public java.lang.String token

#### euAPIServer

public java.lang.String euAPIServer

#### euTTSServer

public java.lang.String euTTSServer

#### naAPIServer

public java.lang.String naAPIServer

#### naTTSServer

public java.lang.String naTTSServer

# token Expire Date UTC

public java.lang.String tokenExpireDateUTC

# Constructors

# DeviceAuth.DeviceAuthEntity

public DeviceAuth.DeviceAuthEntity()

# com.inrix.sdk.model Class DeviceRegister

public class **DeviceRegister** extends XMLEntityBase

# Fields

#### deviceId

public java.lang.String deviceId

# Constructors

## **DeviceRegister**

public DeviceRegister()

# com.inrix.sdk.model Class GasStation

public class **GasStation** extends java.lang.Object

# **Fields**

#### brand

private java.lang.String brand

#### id

private java.lang.String id

#### latitude

private double latitude

# longitude

private double longitude

#### address

private com.inrix.sdk.model.GasStation.Address address

# productList

private java.util.List productList

# Constructors

#### GasStation

#### **Parameters:**

id
brand
latitude
longitude

# Methods

## getID

```
public java.lang.String getID()
```

Return the INRIX id for this gas station

#### **Returns:**

ID

## getBrand

```
public java.lang.String getBrand()
```

Returns the gas station brand

#### **Returns:**

Brand

## getLatitude

```
public double getLatitude()
```

Get the Latitude in which the gas station is located

#### **Returns:**

Latitude

# getLongitude

```
public double getLongitude()
```

Get the Longitude in which the gas station is located

#### **Returns:**

Longitude

## getAddress

```
public GasStation.Address getAddress()
```

Get the Address of the gas station

#### **Returns:**

Address

#### getDistance

```
public double getDistance(GeoPoint from)
```

Get the distance to the gas station from this point

#### **Parameters:**

from - - the point to calculate the distance from

#### **Returns:**

distance to the gas station (unit based on UserPreferences.setSettingUnits(UNIT unit))

#### getProducts

```
public java.util.List getProducts()
```

Get the product list available at this gas station

#### **Returns:**

List of Products the gas station sells

#### setID

```
public void setID(java.lang.String id)
```

Set the INRIX ID for this gas station

#### **Parameters:**

id

#### setBrand

```
public void setBrand(java.lang.String brand)
```

Set the brand for this gas station

#### **Parameters:**

brand

#### setLatitude

```
public void setLatitude(double latitude)
```

Set the Latitude in which the gas station is located

## setLongitude

```
public void setLongitude(double longitude)
```

Set the Longitude in which the gas station is located

#### setAddress

public void setAddress(GasStation.Address address)

Set the Address of the gas station

## setProducts

public void setProducts(java.util.List productList)

Set the product list available at this gas station

## hasProducts

public boolean hasProducts()

Returns true if the product list is not empty. This method can be used to check if the requested products are available at the resulting gas station

#### **Returns:**

- true if the product list is not empty otherwise, return false

# com.inrix.sdk.model Class GasStation.Product

public class **GasStation.Product** extends java.lang.Object

Class representing a product available in the gas station

## **Fields**

#### type

private java.lang.String type

## price

private float price

# currencyCode

private java.lang.String currencyCode

# updateDateStr

private java.lang.String updateDateStr

# Constructors

#### **GasStation.Product**

public GasStation.Product()

Default constructor

#### **GasStation.Product**

Constructor

#### **Parameters:**

```
type - - Product type (Diesel, Regular, MidGrade, Premium)

price - - price of this prouct

currencyCode - - Currency code (USD EUR etc)

updateDate - - Date when the information was updated (should be formatted in INRIX_DATE_FORMAT)
```

# Methods

## getType

```
public java.lang.String getType()
Get the Product type
```

#### **Returns:**

## **getPrice**

```
public float getPrice()
Get the price of the product
```

#### **Returns:**

## getCurrencyCode

```
public java.lang.String getCurrencyCode()

Get the Currency Code

Returns:
```

## getUpdateDate

**Returns:** 

```
public java.util.Date getUpdateDate()
Get the Update date
```

## getUpdateDateString

```
public java.lang.String getUpdateDateString()

Get the update date as a String

Parameters:
    strDateString
```

# setType

```
public void setType(java.lang.String type)
Set the Product type
```

**Returns:** 

## **setPrice**

public void setPrice(float price)

Set the price of the product

**Returns:** 

## setCurrencyCode

public void setCurrencyCode(java.lang.String currencyCode)

Set the Currency Code

**Returns:** 

# set Update Date String

public void setUpdateDateString(java.lang.String strDateString)

Set the update date as a String

#### **Parameters:**

strDateString

# com.inrix.sdk.model Class GasStation.Address

public class **GasStation.Address** extends java.lang.Object

Class representing the Address of a Gas Station

# Fields

#### name

private java.lang.String name

#### street

private java.lang.String street

## city

private java.lang.String city

#### state

private java.lang.String **state** 

# zipCode

private java.lang.String zipCode

## phoneNumber

private java.lang.String phoneNumber

# Constructors

#### **GasStation.Address**

```
public GasStation.Address()
```

Default Constructor

#### **GasStation.Address**

Constructor

#### **Parameters:**

```
name - - Name of the Gas Station (CHEVRON etc) street - - Street address of the gas station city - - City in which the gas station is located state - - State in which the gas station is located zipCode - - Zip code of the gas station phoneNumber - - phone number of the gas station
```

## Methods

## getName

```
public java.lang.String getName()

Get the gas station name
```

**Returns:** 

## getStreet

```
public java.lang.String getStreet()
```

Get the street address

**Returns:** 

City

## getCity

```
public java.lang.String getCity()
   Get the city
   Returns:
```

#### getState

```
public java.lang.String getState()
```

Get the state

#### **Returns:**

State

## getZipCode

```
public java.lang.String getZipCode()
```

Get the zip code

#### **Returns:**

Zip Code

# getPhoneNumber

```
public java.lang.String getPhoneNumber()
```

Get the phone number

#### **Returns:**

Phone Number

#### setName

```
public void setName(java.lang.String name)
```

Set the gas station name

#### setStreet

```
public void setStreet(java.lang.String street)
```

Set the street address

#### setCity

```
public void setCity(java.lang.String city)
```

Set the city

#### setState

```
public void setState(java.lang.String state)
```

Set the state

## setZipCode

```
public void setZipCode(java.lang.String zipCode)
```

Set the zip code

#### setPhoneNumber

```
public void setPhoneNumber(java.lang.String phoneNumber)
```

Set the phone number

# com.inrix.sdk.model Class GasStationCollection

# public class **GasStationCollection** extends JSONEntityBase

Class containing the gas stations in the given radius or Box

# Fields

## gasStations

private java.util.List gasStations

# Constructors

#### **GasStationCollection**

public GasStationCollection()

default constructor

# Methods

# getGasStations

public java.util.List getGasStations()

Get the list of gas stations

**Returns:** 

# com.inrix.sdk.model Class GeoPoint

public final class **GeoPoint** extends java.lang.Object

Represents a geographical location.

# Fields

## MIN\_LATITUDE

private static final double MIN\_LATITUDE

Constant value: -90.0

#### MAX\_LATITUDE

private static final double MAX\_LATITUDE

Constant value: 90.0

## MIN\_LONGITUDE

private static final double MIN\_LONGITUDE

Constant value: -180.0

#### MAX\_LONGITUDE

private static final double  ${\tt MAX\_LONGITUDE}$ 

Constant value: 180.0

#### latitude

private final double latitude

## longitude

private final double longitude

## Constructors

#### **GeoPoint**

Initializes a new instance of the GeoPoint. Lat should be within [-90;90], Lon should be within [-180;180]

#### **Parameters:**

latitude - Current latitude. longitude - Current longitude.

# Methods

#### isValid

```
public static boolean isValid(GeoPoint point)
```

Checks if is valid.

#### **Parameters:**

point - the point

#### **Returns:**

true, if is valid

#### getLatitude

```
public final double getLatitude()
```

Gets the current latitude value.

#### **Returns:**

Current latitude value.

## getLongitude

```
public final double getLongitude()
```

Gets the current longitude value.

#### **Returns:**

Current longitude value.

## toQueryParam

```
public final java.lang.String toQueryParam()
```

Converts current instance to the request parameter value.

#### **Returns:**

Current instance value formatted for request.

## toString

```
public java.lang.String toString()
```

# com.inrix.sdk.model Class Incident

public class **Incident** extends java.lang.Object

The Class Incident, describes main incident properties

# Fields

#### id

private long id

#### version

private int **version** 

#### type

private int type

# severity

private int severity

#### latitude

private double latitude

# longitude

private double longitude

## impacting

private java.lang.String impacting

#### startTime

private java.lang.String startTime

#### endTime

private java.lang.String endTime

#### source

private java.lang.String source

#### eventCode

private java.lang.Integer eventCode

## shortDescription

private com.inrix.sdk.model.Incident.Description shortDescription

## fullDescription

private com.inrix.sdk.model.Incident.Description fullDescription

## delayImpact

private com.inrix.sdk.model.Incident.DelayImpact delayImpact

## parameterizedDescription

 $\verb"private com.inrix.sdk.model.Incident.Parameterized Description" \verb"parameterized Description" \\$ 

## community

private com.inrix.sdk.model.Incident.Community community

#### distance

private double distance

# Constructors

#### **Incident**

```
public Incident()
```

# Methods

## getDistance

```
public double getDistance()
```

Gets the distance that was previously set.

#### **Returns:**

the distance

#### setDistance

```
public void setDistance(double value)
```

Sets the distance.

#### **Parameters:**

value - the new distance

## getDistance

```
public double getDistance(GeoPoint from)
```

Get the distance to the gas station from this point

#### **Parameters:**

from - - the point to calculate the distance from

#### Returns

distance to the gas station (unit based on UserPreferences.setSettingUnits(UNIT unit))

## getId

```
public long getId()
```

Get the id of the incident

#### **Returns:**

the id

## getVersion

```
public int getVersion()
```

Get the version of the incident. Combined with the id uniquely identifies the incident

#### **Returns:**

the version

## getType

```
public int getType()
```

Get the incident Type

#### **Returns:**

the type

## getSeverity

```
public int getSeverity()
```

Get the severity of the incident. This value can be in the range of 0-4, with 4 indicating the highest severity.

#### **Returns:**

the severity

# getLatitude

```
public double getLatitude()
```

Get the latitude of the incident

#### **Returns:**

the latitude

# getLongitude

```
public double getLongitude()
```

Get the longitude of the incident

#### **Returns:**

the longitude

## isImpacting

```
public boolean isImpacting()
```

Returns whether the incident is impacting traffic

#### **Returns:**

the impacting

## getStartTime

```
public java.lang.String getStartTime()
```

Get the time the incident starts

#### **Returns:**

the startTime

## getEventCode

public java.lang.Integer getEventCode()

Get the event code of the incident

#### **Returns:**

the eventCodeInt

## getEndTime

```
public java.lang.String getEndTime()
```

Get the time the incident ends

#### **Returns:**

the endTime

## getShortDescription

```
public Incident.Description getShortDescription()
```

Get the short description

#### **Returns:**

the short description

## getFullDescription

```
public Incident.Description getFullDescription()
```

Get the full description

#### **Returns:**

the fullDescription

## getParameterizedDescription

```
public Incident.ParameterizedDescription getParameterizedDescription()
```

Gets the parameterized description.

#### Returns

the parameterized description

## getDelayImpact

```
public Incident.DelayImpact getDelayImpact()
```

Gets the delay impact.

#### **Returns:**

the delay impact

#### getSource

```
public java.lang.String getSource()
```

Gets the source, present only in case of community reported

#### **Returns:**

the source name

# getCommunity

public Incident.Community getCommunity()

Gets the source, present only in case of community reported

#### **Returns:**

the source name

# com.inrix.sdk.model Class Incident.DelayImpact

public static class **Incident.DelayImpact** extends java.lang.Object

The Class DelayImpact, impact of incident

# **Fields**

# typicalMinutes

private double typicalMinutes

#### freeFlowMinutes

private double freeFlowMinutes

#### distance

private double distance

#### abnormal

private boolean abnormal

# Constructors

## **Incident.DelayImpact**

public Incident.DelayImpact()

# Methods

## getTypicalMinutes

public double getTypicalMinutes()

#### **Returns:**

the typicalMinutes

# getFreeFlowMinutes

public double getFreeFlowMinutes()

### **Returns:**

the freeFlowMinutes

# getDistance

public double getDistance()

#### **Returns:**

the distance of delay

## isAbnormal

public boolean isAbnormal()

# com.inrix.sdk.model Class Incident.ParameterizedDescription

public static class **Incident.ParameterizedDescription** extends java.lang.Object

The Class ParameterizedDescription, detail incident description Closed due to roadworks Spokane Street BOTH South Seattle Eastbound Westbound 34th Avenue 33rd Avenue between and

# **Fields**

### **eventCode**

private int eventCode

### **eventText**

private java.lang.String eventText

### roadName

private java.lang.String roadName

### direction

private java.lang.String direction

### **fromLocation**

private java.lang.String fromLocation

### toLocation

private java.lang.String toLocation

### crossroad1

private java.lang.String crossroad1

### crossroad2

private java.lang.String crossroad2

## position1

private java.lang.String position1

## position2

private java.lang.String position2

# Constructors

# **Incident.ParameterizedDescription**

public Incident.ParameterizedDescription()

# Methods

# getEventCode

public int getEventCode()

#### **Returns:**

the eventCode

# getEventText

public java.lang.String getEventText()

#### **Returns:**

the eventText

## getRoadName

public java.lang.String getRoadName()

#### **Returns:**

the roadName

# getDirection

public java.lang.String getDirection()

### **Returns:**

the direction

# getFromLocation

public java.lang.String getFromLocation()

#### **Returns:**

the fromLocation

# getToLocation

public java.lang.String getToLocation()

#### **Returns:**

the toLocation

## getPosition1

public java.lang.String getPosition1()

#### **Returns:**

the position1

# getPosition2

public java.lang.String getPosition2()

### **Returns:**

the position2

# com.inrix.sdk.model Class Incident.Description

public static class **Incident.Description** extends java.lang.Object

The Class Description.

# Fields

# language

private java.lang.String language

### value

private java.lang.String value

# Constructors

## **Incident.Description**

public Incident.Description()

# Methods

## getValue

public java.lang.String getValue()

### **Returns:**

the value

# getLanguage

public java.lang.String getLanguage()

### **Returns:**

the language

# com.inrix.sdk.model Class Incident.Community

public static class **Incident.Community** extends java.lang.Object

The Class Community, describes contributor and level of accuracy

# **Fields**

### accuracy

private java.lang.String accuracy

### contributor

private com.inrix.sdk.model.Incident.Contributor contributor

# Constructors

# **Incident.Community**

public Incident.Community()

# Methods

## getAccuracy

public java.lang.String getAccuracy()

### **Returns:**

the accuracy

# ${\bf get Contributor}$

public Incident.Contributor getContributor()

#### **Returns:**

the contributor

# com.inrix.sdk.model Class Incident.Contributor

public static class **Incident.Contributor** extends java.lang.Object

The Class Contributor, describes info about reporter

# Fields

#### name

private java.lang.String name

### trustLevel

private java.lang.String trustLevel

# isReporter

private boolean isReporter

# Constructors

## **Incident.Contributor**

public Incident.Contributor()

# Methods

## getName

public java.lang.String getName()

#### **Returns:**

the name

# getTrustLevel

public java.lang.String getTrustLevel()

Gets the trust level.

**Returns:** 

the trust level

# isReporter

public boolean isReporter()

Checks if is reporter.

**Returns:** 

true, if is reporter

# com.inrix.sdk.model Class IncidentCollection

public class **IncidentCollection** extends XMLEntityBase

# **Fields**

## incidents

private java.util.List incidents

# Constructors

### **IncidentCollection**

public IncidentCollection()

# Methods

## getIncidents

public java.util.List getIncidents()

### validate

private void validate()

Validate received incidents. If there was empty incident (w/o ID) - get rid of it.

# com.inrix.sdk.model Class LastLocationsUpdate

public class **LastLocationsUpdate** extends JSONEntityBase

## **Fields**

## INRIX\_TIME\_FORMAT

private final java.lang.String INRIX\_TIME\_FORMAT

Constant value: yyyy-MM-dd'T'HH:mm:ss'Z'

## INRIX\_DEFAULT\_TIMEZONE

private final java.lang.String INRIX\_DEFAULT\_TIMEZONE

Constant value: UTC

### result

private com.inrix.sdk.model.Result result

# lastLocationsUpdate

private java.util.Date lastLocationsUpdate

## **lastCustomRoutesUpdate**

private java.util.Date lastCustomRoutesUpdate

## lastDepartureAlertsUpdate

private java.util.Date lastDepartureAlertsUpdate

### Constructors

# LastLocationsUpdate

public LastLocationsUpdate()

## Methods

## getLastLocationsUpdate

```
public java.util.Date getLastLocationsUpdate()
```

Get last known locations update timestamp. This value changes when you create/delete/update any location

#### **Returns:**

last update time or NULL if locations were never changed

## getLastCustomRoutesUpdate

```
public java.util.Date getLastCustomRoutesUpdate()
```

Get last known custom routes update timestamp. This value changes when you create/delete/update custom routes

#### **Returns:**

last update time or NULL if custom routes were never changed

# get Last Departure Alerts Up date

```
public java.util.Date getLastDepartureAlertsUpdate()
```

Get last known departure alerts update timestamp. This value changes when you create/delete/update departure alerts

#### **Returns:**

last update time or NULL if departure alerts were never changed

## getDateFromString

```
private java.util.Date getDateFromString(java.lang.String str)
```

# com.inrix.sdk.model Class Location

public class **Location** extends java.lang.Object

# **Fields**

#### name

private java.lang.String name

# locationType

private int locationType

### address

private java.lang.String address

### consumerId

private java.lang.String consumerId

### customData

private java.lang.String customData

### locationId

private long locationId

### latitude

private double latitude

# longitude

private double longitude

### order

private int order

## Constructors

### Location

# Methods

## getName

```
public java.lang.String getName()
```

# getOrder

```
public int getOrder()
```

## getGeoPoint

```
public GeoPoint getGeoPoint()
```

## getCustomData

```
public java.lang.String getCustomData()
```

## getLocationType

```
public int getLocationType()
```

# getAddress

public java.lang.String getAddress()

# ${\bf getLocation Id}$

public long getLocationId()

# com.inrix.sdk.model Class LocationsCollection

public class **LocationsCollection** extends JSONEntityBase

# Fields

### locations

private java.util.List locations

# Constructors

### **Locations Collection**

public LocationsCollection()

# Methods

## getLocations

public java.util.List getLocations()

# com.inrix.sdk.model Class ParkingLot

public final class **ParkingLot** extends java.lang.Object

Represents information about a single parking lot.

## **Fields**

### id

private int id

#### name

private java.lang.String name

### latitude

private double latitude

# longitude

private double longitude

### **staticContent**

private com.inrix.sdk.model.ParkingLot.StaticContent staticContent

## dynamicContent

private com.inrix.sdk.model.ParkingLot.DynamicContent dynamicContent

## Constructors

# **ParkingLot**

```
public ParkingLot()
```

## **Methods**

### getId

```
public final int getId()
```

Gets an Id of the parking lot.

#### **Returns:**

Id of the parking lot; null if information is not available.

## getName

```
public final java.lang.String getName()
```

Gets the name of the parking lot.

#### **Returns:**

Name of the parking lot; null if information is not available.

## getLatitude

```
public final double getLatitude()
```

Gets the latitude of the parking lot.

#### **Returns:**

Parking lot latitude; Double.NaN if information is not available.

## getLongitude

```
public final double getLongitude()
```

Gets the longitude of the parking lot.

### **Returns:**

Parking lot longitude; Double. Nan if information is not available.

## getGeoPoint

```
public final GeoPoint getGeoPoint()
```

Gets the geopoint of the parking lot location.

### **Returns:**

Parking lot location; null if latitude/longitude information is not available.

## getDistance

```
public double getDistance(GeoPoint from)
```

Get the distance to the gas station from this point

#### **Parameters:**

from - - the point to calculate the distance from

### **Returns:**

distance to the gas station (unit based on UserPreferences.setSettingUnits(UNIT unit))

## getStaticContent

```
public final ParkingLot.StaticContent getStaticContent()
```

Gets the static content, information about parking lot that doesn't change frequently.

### **Returns:**

Static information about parking lot.

### getDynamicContent

```
public final ParkingLot.DynamicContent getDynamicContent()
```

Gets the frequently changing information about the parking lot.

### **Returns:**

Frequently changing information about the parking lot; null if information is not available.

# com.inrix.sdk.model Class ParkingLot.StaticContent

public static final class **ParkingLot.StaticContent** extends java.lang.Object

Represents the static, not frequently changing attributes of a parking lot.

## **Fields**

### geometry

private java.lang.String geometry

### information

private com.inrix.sdk.model.ParkingLot.Information information

## specification

private com.inrix.sdk.model.ParkingLot.Specification specification

# openingHours

 $\verb"private com.inrix.sdk.model.ParkingLot.OpeningHours" openingHours$ 

### paymentMethods

 $\verb"private com.inrix.sdk.model.ParkingLot.PaymentMethods" \verb"paymentMethods" aymentMethods" and \verb"paymentMethods" are also as a supplementary of the private of the payment of the payment$ 

### pricing

private java.util.List pricing

## Constructors

## ParkingLot.StaticContent

public ParkingLot.StaticContent()

## **Methods**

## getGeometry

```
public final java.lang.String getGeometry()
```

Gets the outline of parking lot or center of parking lot (if 1 point). Geometry is encoded using polyline algorithm format described in: Encoded Polyline Algorithm Format

#### **Returns:**

Outline or center of the parking lot; null if information is not available.

### getInformation

```
public final ParkingLot.Information getInformation()
```

Gets the parking lot information, including address, operator name, etc.

#### Returns

Parking lot information; null if information is not available.

### getSpecification

```
public final ParkingLot.Specification getSpecification()
```

Gets a parking lot specification, including gate locations for parking lots.

#### Returns

Parking lot specification; null if information is not available.

## getOpeningHours

```
public final ParkingLot.OpeningHours getOpeningHours()
```

Gets the opening hours for a parking lot.

### **Returns:**

Opening hours for a parking lot; null if information is not available.

### getPaymentMethods

```
public final ParkingLot.PaymentMethods getPaymentMethods()
```

Gets the supported payment methods for a parking lot.

#### **Returns:**

Supported payment methods; null if information is not available.

## getPricingPayment

```
public final java.util.List getPricingPayment()
```

Gets an information on pricing of the parking lot.

#### Returns

Pricing information of the parking lot; null or empty list if information is not available.

# com.inrix.sdk.model Class ParkingLot.Information

public static final class **ParkingLot.Information** extends java.lang.Object

Operator and address for parking lot.

## **Fields**

#### name

private java.lang.String name

### address

private com.inrix.sdk.model.ParkingLot.Address address

## operators

private java.util.List operators

### photos

private java.util.List photos

# Constructors

## ParkingLot.Information

public ParkingLot.Information()

# Methods

## getName

public final java.lang.String getName()

Gets the operator name of the parking lot.

#### **Returns:**

Operator name of parking lot; null if information is not available.

## getAddress

```
public final ParkingLot.Address getAddress()
```

Gets an address of the parking lot.

#### **Returns:**

Parking lot address; null if information is not available.

# getOperators

```
public final java.util.List getOperators()
```

Gets a list of operators for a parking lot.

#### **Returns:**

Parking lot operators; null if information is not available.

## getPhotos

```
public final java.util.List getPhotos()
```

Gets the list of photos.

### **Returns:**

List of photos.

# com.inrix.sdk.model Class ParkingLot.Address

public static final class **ParkingLot.Address** extends java.lang.Object

Parking lot address.

# Fields

### street

private java.lang.String street

## city

private java.lang.String city

#### state

private java.lang.String state

# zipCode

 $\verb|private java.lang.String zipCode|\\$ 

### country

private java.lang.String country

## phoneNumber

private java.lang.String phoneNumber

# Constructors

# ParkingLot.Address

```
public ParkingLot.Address()
```

## Methods

### getStreet

```
public final java.lang.String getStreet()
```

Gets the street name.

#### **Returns:**

Street name or null, if information is not available.

## getCity

```
public final java.lang.String getCity()
```

Gets the city name.

#### **Returns:**

City name or null, if information is not available.

### getState

```
public final java.lang.String getState()
```

Gets the state name.

#### **Returns:**

State name or null, if information is not available.

## getZipCode

```
public final java.lang.String getZipCode()
```

Gets the zip code.

### **Returns:**

Zip code or null, if information is not available.

## getCountry

```
public final java.lang.String getCountry()
```

Gets the country name.

### **Returns:**

Country name or null, if information is not available.

## getPhoneNumber

```
public final java.lang.String getPhoneNumber()
```

Gets the phone number.

### **Returns:**

Phone number or null, if information is not available.

# com.inrix.sdk.model Class ParkingLot.Photo

public static final class **ParkingLot.Photo** extends java.lang.Object

Parking lot photo.

# Fields

# mimeType

private java.lang.String mimeType

#### src

private java.lang.String src

# Constructors

# ParkingLot.Photo

public ParkingLot.Photo()

# Methods

# getMimeType

public final java.lang.String getMimeType()

Gets a resource MIME type of the resource source is pointing to.

### **Returns:**

Resource MIME type.

## getSource

public final java.lang.String getSource()

Gets the resource location.

#### **Returns:**

Resource location.

# com.inrix.sdk.model Class ParkingLot.ParkingType

**All Implemented Interfaces:** 

java.io.Serializable, java.lang.Comparable

public static final class **ParkingLot.ParkingType** extends java.lang.Enum

## Fields

### Unknown

public static final com.inrix.sdk.model.ParkingLot.ParkingType Unknown

### **Special**

public static final com.inrix.sdk.model.ParkingLot.ParkingType Special

## **OpenSpace**

public static final com.inrix.sdk.model.ParkingLot.ParkingType OpenSpace

## MultiStorey

public static final com.inrix.sdk.model.ParkingLot.ParkingType MultiStorey

## **Underground**

public static final com.inrix.sdk.model.ParkingLot.ParkingType Underground

### Covered

public static final com.inrix.sdk.model.ParkingLot.ParkingType Covered

### **Nested**

public static final com.inrix.sdk.model.ParkingLot.ParkingType Nested

### **Field**

public static final com.inrix.sdk.model.ParkingLot.ParkingType Field

### Roadside

public static final com.inrix.sdk.model.ParkingLot.ParkingType Roadside

## **DropoffWithValet**

public static final com.inrix.sdk.model.ParkingLot.ParkingType DropoffWithValet

### **DropoffMechanical**

public static final com.inrix.sdk.model.ParkingLot.ParkingType DropoffMechanical

### Highway

public static final com.inrix.sdk.model.ParkingLot.ParkingType Highway

### **ParkAndRide**

public static final com.inrix.sdk.model.ParkingLot.ParkingType ParkAndRide

### Carpool

public static final com.inrix.sdk.model.ParkingLot.ParkingType Carpool

### Campground

public static final com.inrix.sdk.model.ParkingLot.ParkingType Campground

### **ParkingZone**

public static final com.inrix.sdk.model.ParkingLot.ParkingType ParkingZone

#### **Downtown**

public static final com.inrix.sdk.model.ParkingLot.ParkingType Downtown

## **Temporary**

public static final com.inrix.sdk.model.ParkingLot.ParkingType Temporary

### **KissAndRide**

public static final com.inrix.sdk.model.ParkingLot.ParkingType KissAndRide

### value

private final int value

## Constructors

## ParkingLot.ParkingType

private ParkingLot.ParkingType(int value)

# Methods

### values

public static ParkingLot.ParkingType[] values()

### valueOf

public static ParkingLot.ParkingType valueOf(java.lang.String name)

## getValue

public int getValue()

### **fromValue**

public final static ParkingLot.ParkingType fromValue(int value)

Gets the parking type by specified value.

### **Parameters:**

value - Target value.

### **Returns:**

Parking type for the specified value or null if not found.

# com.inrix.sdk.model Class ParkingLot.Specification

public static final class **ParkingLot.Specification** extends java.lang.Object

Parking lot specification, including gate locations for parking lots.

## **Fields**

## gateInfo

private java.util.List gateInfo

### type

private int type

## capacity

private int capacity

## Constructors

# ParkingLot.Specification

public ParkingLot.Specification()

# Methods

# getGateInformation

public final java.util.List getGateInformation()

Gets the parking lot gates information.

#### Returns

Parking lot gates information.

# getType

```
public final ParkingLot.ParkingType getType()
```

Gets the parking lot type.

### **Returns:**

Parking lot type. No value if information is not available.

# getCapacity

```
public final int getCapacity()
```

Gets the parking lot capacity.

### **Returns:**

Capacity of the parking lot; returns Inrix.NO\_VALUE if the information is not available.

# com.inrix.sdk.model Class ParkingLot.GateType

#### All Implemented Interfaces:

java.io.Serializable, java.lang.Comparable

public static final class **ParkingLot.GateType** extends java.lang.Enum

## Fields

### Unknown

public static final com.inrix.sdk.model.ParkingLot.GateType Unknown

### VehicleEntrance

public static final com.inrix.sdk.model.ParkingLot.GateType VehicleEntrance

### **VehicleExit**

public static final com.inrix.sdk.model.ParkingLot.GateType VehicleExit

### **VehicleRentalReturn**

public static final com.inrix.sdk.model.ParkingLot.GateType VehicleRentalReturn

### **VehicleExitAndEntrance**

public static final com.inrix.sdk.model.ParkingLot.GateType VehicleExitAndEntrance

### **PedestrianEntrance**

public static final com.inrix.sdk.model.ParkingLot.GateType PedestrianEntrance

### **PedestrianExit**

public static final com.inrix.sdk.model.ParkingLot.GateType PedestrianExit

### value

private final int value

## Constructors

## ParkingLot.GateType

private ParkingLot.GateType(int value)

# Methods

### values

public static ParkingLot.GateType[] values()

### valueOf

public static ParkingLot.GateType valueOf(java.lang.String name)

## getValue

public int getValue()

### **fromValue**

public final static ParkingLot.GateType fromValue(int value)

Gets the gate type by specified value.

### **Parameters:**

value - Target value.

### **Returns:**

Gate type for the specified value or null if not found.

# com.inrix.sdk.model Class ParkingLot.GateInformation

public static final class **ParkingLot.GateInformation** extends java.lang.Object

An information about parking lot gate.

## **Fields**

## type

private int type

### latitude

private double latitude

## longitude

private double longitude

## Constructors

# ParkingLot.GateInformation

public ParkingLot.GateInformation()

# Methods

## getType

public final ParkingLot.GateType getType()

Gets the gate type.

#### **Returns:**

Type of the parking lot gate.

# getLatitude

```
public final double getLatitude()
```

Gets the parking lot gate location latitude.

#### **Returns:**

Latitude of parking lot gate; Double. NaN if information is not available.

# getLongitude

```
public final double getLongitude()
```

Gets the parking lot gate longitude.

#### **Returns:**

Longitude of parking lot gate; Double. NaN if information is not available.

# com.inrix.sdk.model Class ParkingLot.OpeningHoursType

All Implemented Interfaces:

java.io.Serializable, java.lang.Comparable

public static final class **ParkingLot.OpeningHoursType** extends java.lang.Enum

### **Fields**

#### Unknown

public static final com.inrix.sdk.model.ParkingLot.OpeningHoursType Unknown

### **EntryHours**

public static final com.inrix.sdk.model.ParkingLot.OpeningHoursType EntryHours

#### **ExitHours**

public static final com.inrix.sdk.model.ParkingLot.OpeningHoursType ExitHours

### **MaximumStayTime**

public static final com.inrix.sdk.model.ParkingLot.OpeningHoursType MaximumStayTime

#### value

private final int value

### Constructors

### ParkingLot.OpeningHoursType

private ParkingLot.OpeningHoursType(int value)

# Methods

### values

public static ParkingLot.OpeningHoursType[] values()

### valueOf

public static ParkingLot.OpeningHoursType valueOf(java.lang.String name)

## getValue

public int getValue()

### **fromValue**

public final static ParkingLot.OpeningHoursType fromValue(int value)

Gets the opening hours type by specified value.

#### **Parameters:**

value - Target value.

### **Returns:**

Opening hours type for the specified value or null if not found.

# com.inrix.sdk.model Class ParkingLot.OpeningHours

public static final class **ParkingLot.OpeningHours** extends java.lang.Object

Hours of operation for parking lot.

## Fields

### type

private int type

#### notes

private java.lang.String notes

# Constructors

### ParkingLot.OpeningHours

public ParkingLot.OpeningHours()

# Methods

### getType

```
public final ParkingLot.OpeningHoursType getType()
```

Gets the opening hours type.

#### **Returns:**

Opening hours type.

### getNotes

```
public final java.lang.String getNotes()
```

Gets the notes for opening hours.

#### **Returns:**

Opening hours notes; null if information is not available.

# com.inrix.sdk.model Class ParkingLot.PaymentMethodType

#### **All Implemented Interfaces:**

java.io.Serializable, java.lang.Comparable

public static final class **ParkingLot.PaymentMethodType** extends java.lang.Enum

### **Fields**

#### Unknown

public static final com.inrix.sdk.model.ParkingLot.PaymentMethodType Unknown

#### Cash

public static final com.inrix.sdk.model.ParkingLot.PaymentMethodType Cash

#### CreditCard

public static final com.inrix.sdk.model.ParkingLot.PaymentMethodType CreditCard

### **ElectronicSettlement**

public static final com.inrix.sdk.model.ParkingLot.PaymentMethodType ElectronicSettlement

#### **Ticket**

public static final com.inrix.sdk.model.ParkingLot.PaymentMethodType Ticket

### **Token**

public static final com.inrix.sdk.model.ParkingLot.PaymentMethodType Token

### DirectCashTransfer

public static final com.inrix.sdk.model.ParkingLot.PaymentMethodType DirectCashTransfer

#### **RFID**

public static final com.inrix.sdk.model.ParkingLot.PaymentMethodType RFID

### **PrepayCard**

public static final com.inrix.sdk.model.ParkingLot.PaymentMethodType PrepayCard

#### **MobilePhone**

public static final com.inrix.sdk.model.ParkingLot.PaymentMethodType MobilePhone

#### **Smartcard**

public static final com.inrix.sdk.model.ParkingLot.PaymentMethodType Smartcard

#### value

private final int value

# Constructors

### ParkingLot.PaymentMethodType

private ParkingLot.PaymentMethodType(int value)

# Methods

#### values

public static ParkingLot.PaymentMethodType[] values()

#### valueOf

public static ParkingLot.PaymentMethodType valueOf(java.lang.String name)

# getValue

public int getValue()

### **fromValue**

 $\verb|public final static ParkingLot.PaymentMethodType| | \textbf{fromValue}(int value)|\\$ 

Gets the payment method type by specified value.

#### **Parameters:**

value - Target value.

#### **Returns:**

Payment method type for the specified value or null if not found.

# com.inrix.sdk.model Class ParkingLot.PaymentMethods

public static final class **ParkingLot.PaymentMethods** extends java.lang.Object

Supported payment methods.

## Fields

### methods

private int methods

## Constructors

## ParkingLot.PaymentMethods

public ParkingLot.PaymentMethods()

# Methods

### getMethods

public ParkingLot.PaymentMethodType[] getMethods()

Gets the supported payment methods.

#### **Returns:**

Supported payment methods.

# com.inrix.sdk.model Class ParkingLot.PricingPayment

public static final class **ParkingLot.PricingPayment** extends java.lang.Object

Information on pricing of the parking lot.

## Fields

### time

private com.inrix.sdk.model.ParkingLot.ParkingTime time

#### amount

private int amount

#### currency

private java.lang.String currency

#### notes

private java.lang.String notes

# Constructors

# ParkingLot.PricingPayment

public ParkingLot.PricingPayment()

# Methods

### getTime

public final ParkingLot.ParkingTime getTime()

Gets the time for this pricing.

#### **Returns:**

Time for this pricing.

### getAmount

```
public final int getAmount()
```

Gets the pricing amount.

#### **Returns:**

Pricing amount; Inrix.NO\_VALUE if information is not available.

## getCurrency

```
public final java.lang.String getCurrency()
```

Gets the currency type for this pricing.

#### **Returns:**

Currency type for a pricing.

## getNotes

```
public final java.lang.String getNotes()
```

Gets the additional notes for this pricing.

### **Returns:**

Notes for the pricing, for instance "closed for this departure time" if the parking lot is closed at this time, etc.

# com.inrix.sdk.model Class ParkingLot.ParkingTime

public static final class **ParkingLot.ParkingTime** extends java.lang.Object

Represents a parking time in the pricing information.

## Fields

### duration

private com.inrix.sdk.model.ParkingLot.ParkingDuration duration

## Constructors

# ParkingLot.ParkingTime

public ParkingLot.ParkingTime()

# Methods

## getDuration

public final ParkingLot.ParkingDuration getDuration()

Gets a duration information for this parking time.

#### **Returns:**

Duration information.

# com.inrix.sdk.model Class ParkingLot.ParkingDuration

public static final class **ParkingLot.ParkingDuration** extends java.lang.Object

Represents a parking duration information.

# Fields

### hours

private int hours

## Constructors

# ParkingLot.ParkingDuration

public ParkingLot.ParkingDuration()

# Methods

## getHours

public final int getHours()

Gets the number of hours in this duration.

#### **Returns:**

Number of hours in the duration.

# com.inrix.sdk.model Class ParkingLot.DynamicContent

public static final class **ParkingLot.DynamicContent** extends java.lang.Object

Represents a frequently changing information about a parking lot.

## Fields

## currentCapacity

private com.inrix.sdk.model.ParkingLot.CurrentCapacity currentCapacity

## Constructors

## ParkingLot.DynamicContent

public ParkingLot.DynamicContent()

# Methods

### getCurrentCapacity

public final ParkingLot.CurrentCapacity getCurrentCapacity()

Gets the current capacity of the parking lot.

#### **Returns:**

Current capacity of the parking lot.

# com.inrix.sdk.model Class ParkingLot.ParkingStatus

All Implemented Interfaces:

java.io.Serializable, java.lang.Comparable

public static final class **ParkingLot.ParkingStatus** extends java.lang.Enum

### Fields

#### Unknown

public static final com.inrix.sdk.model.ParkingLot.ParkingStatus Unknown

#### Full

public static final com.inrix.sdk.model.ParkingLot.ParkingStatus Full

### **Busy**

public static final com.inrix.sdk.model.ParkingLot.ParkingStatus Busy

#### Vacant

public static final com.inrix.sdk.model.ParkingLot.ParkingStatus Vacant

#### Closed

public static final com.inrix.sdk.model.ParkingLot.ParkingStatus Closed

### **NoParkingAllowed**

public static final com.inrix.sdk.model.ParkingLot.ParkingStatus NoParkingAllowed

# **SpecialConditionsApply**

public static final com.inrix.sdk.model.ParkingLot.ParkingStatus SpecialConditionsApply

#### value

private final int value

### Constructors

### ParkingLot.ParkingStatus

private ParkingLot.ParkingStatus(int value)

# Methods

#### values

public static ParkingLot.ParkingStatus[] values()

### valueOf

public static ParkingLot.ParkingStatus valueOf(java.lang.String name)

### getValue

public int getValue()

#### **fromValue**

public final static ParkingLot.ParkingStatus fromValue(int value)

Gets the parking status type by specified value.

#### **Parameters:**

value - Target value.

#### **Returns:**

Parking lot status type for the specified value or null if not found.

# com.inrix.sdk.model Class ParkingLot.Tendency

**All Implemented Interfaces:** 

java.io.Serializable, java.lang.Comparable

public static final class **ParkingLot.Tendency** extends java.lang.Enum

## Fields

#### Unknown

public static final com.inrix.sdk.model.ParkingLot.Tendency Unknown

### **FfillingQuickly**

public static final com.inrix.sdk.model.ParkingLot.Tendency FfillingQuickly

### **Filling**

public static final com.inrix.sdk.model.ParkingLot.Tendency Filling

### **FillingSlowly**

public static final com.inrix.sdk.model.ParkingLot.Tendency FillingSlowly

### **Unchanging**

public static final com.inrix.sdk.model.ParkingLot.Tendency Unchanging

### **EmptyingSlowly**

public static final com.inrix.sdk.model.ParkingLot.Tendency EmptyingSlowly

# **Emptying**

public static final com.inrix.sdk.model.ParkingLot.Tendency Emptying

### **EmptyingQuickly**

public static final com.inrix.sdk.model.ParkingLot.Tendency EmptyingQuickly

#### value

private final int value

## Constructors

### ParkingLot.Tendency

private ParkingLot.Tendency(int value)

# Methods

#### values

public static ParkingLot.Tendency[] values()

### valueOf

public static ParkingLot.Tendency valueOf(java.lang.String name)

### getValue

public int getValue()

### **fromValue**

public final static ParkingLot.Tendency fromValue(int value)

Gets the tendency type by specified value.

#### **Parameters:**

value - Target value.

#### **Returns:**

Tendency type for the specified value or null if not found.

# com.inrix.sdk.model Class ParkingLot.Reservability

#### **All Implemented Interfaces:**

java.io.Serializable, java.lang.Comparable

public static final class **ParkingLot.Reservability** extends java.lang.Enum

## Fields

#### Unknown

public static final com.inrix.sdk.model.ParkingLot.Reservability Unknown

### **PartlyReservable**

public static final com.inrix.sdk.model.ParkingLot.Reservability PartlyReservable

#### Reservable

public static final com.inrix.sdk.model.ParkingLot.Reservability Reservable

#### **NotReservable**

public static final com.inrix.sdk.model.ParkingLot.Reservability NotReservable

### ReservationRequired

public static final com.inrix.sdk.model.ParkingLot.Reservability ReservationRequired

#### value

private final int value

# Constructors

# ParkingLot.Reservability

private ParkingLot.Reservability(int value)

# Methods

### values

public static ParkingLot.Reservability[] values()

#### valueOf

 $\verb|public static ParkingLot.Reservability| | \textbf{valueOf}(\texttt{java.lang.String}| | \texttt{name})|$ 

## getValue

public int getValue()

### **fromValue**

public final static ParkingLot.Reservability fromValue(int value)

Gets the reservability type by specified value.

#### **Parameters:**

value - Target value.

#### **Returns:**

Reservability type for the specified value or null if not found.

# com.inrix.sdk.model Class ParkingLot.CurrentCapacity

public static final class **ParkingLot.CurrentCapacity** extends java.lang.Object

Represents a current capacity of the parking lot.

## Fields

## timestamp

private java.lang.String timestamp

## availableSpaces

private int availableSpaces

## occupancyPercentage

private int occupancyPercentage

#### fillState

private int fillState

#### **fillStateRate**

private int fillStateRate

## tendency

private int tendency

# reservability

private int reservability

#### dateFormat

private final java.text.SimpleDateFormat dateFormat

# Constructors

## ParkingLot.CurrentCapacity

public ParkingLot.CurrentCapacity()

# Methods

### getTimestamp

```
public final java.util.Date getTimestamp()
```

Gets the timestamp when the data was acquired.

#### **Returns:**

Data acquisition timestamp.

## getAvailableSpaces

```
public final int getAvailableSpaces()
```

Gets the number of available spaces on the parking lot.

#### **Returns:**

Number of available spaces.

# getOccupancyPercentage

```
public final int getOccupancyPercentage()
```

Gets the parking lot occupancy percentage.

#### **Returns:**

Occupancy percentage.

### getFillState

```
public final ParkingLot.ParkingStatus getFillState()
```

Get fill state.

#### **Returns:**

Fill state.

### getFillStateRate

```
public final int getFillStateRate()
```

### **Returns:**

Fill state rate.

Gets the fill state rate.

# getTendency

```
public final ParkingLot.Tendency getTendency()
```

Gets the value indicating whether the lot is currently filling up, emptying or staying same in terms of available spaces.

#### **Returns:**

Tendency for the parking lot.

## getReservability

```
public final ParkingLot.Reservability getReservability()
```

Gets the value indicating reservability of the parking lot.

#### **Returns:**

Reservability of the parking lot.

# com.inrix.sdk.model Class ParkingLotCollection

public final class **ParkingLotCollection** extends JSONEntityBase

Represents a collection of ParkingLot objects.

# **Fields**

### parkingLots

private java.util.List parkingLots

## Constructors

### **ParkingLotCollection**

public ParkingLotCollection()

# Methods

## getParkingLots

```
public final java.util.List getParkingLots()
```

Gets a list of parking lots in this collection.

#### **Returns:**

List of parking lots.

### preFilter

```
private java.util.List preFilter(java.util.List original)
```

Pre-filter results, do not include ParkingLot objects without Id.

#### **Parameters:**

original - Original collection.

#### **Returns:**

Prefiltered collection.

# com.inrix.sdk.model Class Point

public class **Point** extends java.lang.Object

This class represents a point in the route

# Fields

### latitude

private double latitude

## longitude

private double longitude

# Constructors

### **Point**

public Point()

# Methods

### getLatitude

public double getLatitude()

#### setLatitude

public void setLatitude(double latitude)

## getLatitudeE5

public int getLatitudeE5()

# getLongitude

public double getLongitude()

# setLongitude

public void setLongitude(double longitude)

# getLongitudeE5

public int getLongitudeE5()

# com.inrix.sdk.model Class Result

 $class \ \textbf{Result}$ 

extends java.lang.Object

# **Fields**

## lastLocations Update Str

private java.lang.String lastLocationsUpdateStr

## last Custom Routes Update Str

private java.lang.String lastCustomRoutesUpdateStr

## last Departure Alerts Update Str

private java.lang.String lastDepartureAlertsUpdateStr

# Constructors

### Result

Result()

# Methods

## getLastLocations Update Str

public java.lang.String getLastLocationsUpdateStr()

# get Last Departure Alerts Update Str

public java.lang.String getLastDepartureAlertsUpdateStr()

# get Last Custom Routes Update Str

public java.lang.String getLastCustomRoutesUpdateStr()

# com.inrix.sdk.model Class Route

public class **Route** extends java.lang.Object

# **Fields**

#### id

private long id

## uncongested Travel Time Minutes

private int uncongestedTravelTimeMinutes

# routeQuality

private int routeQuality

### hasClosures

private boolean hasClosures

### travelTimeMinutes

private int travelTimeMinutes

# $abnormality \\ Minutes$

private int abnormalityMinutes

## averageSpeed

private double averageSpeed

### trafficConsidered

private boolean trafficConsidered

#### statusId

private int statusId

### totalDistance

private double totalDistance

### incidents

private java.util.List incidents

### points

private java.util.List points

#### summary

private com.inrix.sdk.model.Route.Summary summary

# Constructors

### **Route**

public Route()

# Methods

### getId

public long getId()

## getIncidents

public java.util.List getIncidents()

### setIncidents

public void setIncidents(java.util.List incidents)

### **getPoints**

public java.util.List getPoints()

#### **setPoints**

public void setPoints(java.util.List points)

### getTotalDistance

public double getTotalDistance()

## getAverageSpeed

public double getAverageSpeed()

### getAbnormalityMinutes

public int getAbnormalityMinutes()

## getTravelTimeMinutes

public int getTravelTimeMinutes()

## get Uncongested Travel Time Minutes

public int getUncongestedTravelTimeMinutes()

### getStatusId

public int getStatusId()

# getRouteQuality

public int getRouteQuality()

### hasClosures

public boolean hasClosures()

### isTrafficConsidered

public boolean isTrafficConsidered()

### getSummary

public Route.Summary getSummary()

### getPolyline

public java.lang.String getPolyline()

the points array of the route is returned as a encoded polyline as described by google poly-line algorithm. See  $\underline{\text{Google}}$  Polyline Algorithm

#### **Returns:**

- the encoded polyline of this route as a java.lang.String

### encodeDiff

private java.lang.String encodeDiff(int coordinateDiff)

#### Parameters:

coordinateDiff - - the difference between the last coordinate and current coordinate

#### **Returns:**

encoded string

# com.inrix.sdk.model Class Route.Summary

public static class **Route.Summary** extends java.lang.Object

# **Fields**

#### roads

private java.util.List roads

#### text

private java.lang.String text

# Constructors

### **Route.Summary**

public Route.Summary()

# Methods

### getText

public java.lang.String getText()

# getRoads

public java.util.List getRoads()

# com.inrix.sdk.model Class Route.Road

public static class **Route.Road** extends java.lang.Object

# **Fields**

### roadClass

private java.lang.String roadClass

#### name

private java.lang.String name

# Constructors

### Route.Road

public Route.Road()

# Methods

## getRoadClass

public int getRoadClass()

# getName

public java.lang.String getName()

# com.inrix.sdk.model Class RoutesCollection

public class **RoutesCollection** extends XMLEntityBase

# **Fields**

# incidentBodiesMap

private java.util.Map incidentBodiesMap

#### incidents

private java.util.List incidents

#### routes

private java.util.List routes

## Constructors

### RoutesCollection

public RoutesCollection()

# Methods

## getRoutes

public java.util.List getRoutes()

# initIncidentsMap

private void initIncidentsMap()

# matchIncidents

private void matchIncidents()

Since incidents within routes are just pointers to the incidents inside RouteCollection, we need to match these incidents. So this function basically replaces incidents pointers with actual incidents taken from RoutesCollection

# com.inrix.sdk.model Class SingleGasStationResult

public class **SingleGasStationResult** extends JSONEntityBase

Class containing the gas station result

# Fields

### gasStation

private com.inrix.sdk.model.GasStation gasStation

# Constructors

# Single Gas Station Result

public SingleGasStationResult()

default constructor

# Methods

## getGasStation

public GasStation getGasStation()

Get the gas station

**Returns:** 

## com.inrix.sdk.model Class SingleLocationCollection

# public class **SingleLocationCollection** extends JSONEntityBase

This class is similar to <u>LocationsCollection</u>, but here we have only one Location in response. We need this because parsing signature is different

## **Fields**

### location

private com.inrix.sdk.model.Location location

## Constructors

## SingleLocationCollection

public SingleLocationCollection()

## Methods

### getLocation

public Location getLocation()

## com.inrix.sdk.model Class TravelTimeResponse

public class **TravelTimeResponse** extends XMLEntityBase

The class that will be returned from a @TravelTimeRequest

## Fields

### tripInfo

private com.inrix.sdk.model.TripInformation tripInfo

The TripInformation from the response

## Constructors

### **TravelTimeResponse**

public TravelTimeResponse()

Default constructor

## Methods

## ${\bf get Trip Information}$

```
public TripInformation getTripInformation()
```

Get the Trip Information that contains the requested travel times for the route

#### **Returns:**

- The TripInformation

## com.inrix.sdk.model Class TripInformation

public class **TripInformation** extends java.lang.Object

Class representing the Trip information response from the server for a Travel Time Request

## Fields

### statusId

private int statusId

### id

private long id

## voiceTag

private java.lang.String voiceTag

## description

private java.lang.String description

### origin

private com.inrix.sdk.model.TripInformation.TravelPoint origin

#### destination

private com.inrix.sdk.model.TripInformation.TravelPoint destination

#### route

private com.inrix.sdk.model.TripInformation.RouteTravelTime route

## Constructors

## **TripInformation**

public TripInformation()

## Methods

## getStatusId

```
public int getStatusId()
```

Return the status id for this Travel Time Response

**Returns:** 

## getTripID

```
public long getTripID()
```

Return the Trip ID for this Travel Time Response

#### **Returns:**

- the Trip id

### getVoiceTag

```
public java.lang.String getVoiceTag()
```

Return the voice tag for this Travel Time Response

#### **Returns:**

- the voice tag

## getDescription

```
public java.lang.String getDescription()
```

Return the route description

#### **Returns:**

- the Inrix server description of the route of this trip

## getOrigin

```
public GeoPoint getOrigin()
```

Return the origin for this trip

#### Returns

- The starting point of the route of this trip as a GeoPoint

## getDestination

```
public GeoPoint getDestination()
```

Return the destination for this trip

#### **Returns:**

- The destination of the route of this trip as a GeoPoint

## getRoute

```
public <u>TripInformation.RouteTravelTime</u> getRoute()
```

Return the route object for this trip

#### **Returns:**

- the Route Object

## com.inrix.sdk.model Class TripInformation.TravelPoint

public static class **TripInformation.TravelPoint** extends java.lang.Object

Class representing a travel point (start and end of the route) in the travel time response.

## Fields

### latitude

private double latitude

### longitude

private double longitude

## Constructors

## **TripInformation.TravelPoint**

```
public TripInformation.TravelPoint()
```

Default Constructor - initialize the latitude and longitude to 0

## TripInformation.TravelPoint

Parameterized constructor

#### **Parameters:**

latitude - - the latitude longitude - - the longitude

## Methods

## getLatitude

```
public double getLatitude()
```

return the latitude of this travel point

#### **Returns:**

- the latitude

## getLongitude

public double getLongitude()

return the longitude of this travel point

### **Returns:**

- the longitude

## com.inrix.sdk.model Class TripInformation.RouteTravelTime

public static class **TripInformation.RouteTravelTime** extends java.lang.Object

Class representing the route in a travel time response. This has a route id, instance id and other information pertaining to the route such as uncongested travel time in minutes and the different travel times when departing at different times

## Fields

#### id

private long id

#### routeInstanceId

private long routeInstanceId

## uncongested Travel Time Minutes

 $\verb"private" int \verb"uncongestedTravelTimeMinutes"$ 

#### travelTimes

private java.util.List travelTimes

### Constructors

## **TripInformation.RouteTravelTime**

public TripInformation.RouteTravelTime()

Default Constructor

## Methods

### getRouteID

public long getRouteID()

Return the route ID for this route

#### **Returns:**

- The route id

## getRouteInstanceID

```
public long getRouteInstanceID()
```

Return the instance id for this route

#### **Returns:**

- The route instance id

## getUncongestedTravelTime

```
public int getUncongestedTravelTime()
```

Return the un-congested travel time on this route

#### **Returns:**

- the un-congested travel time on this route in minutes

## getTravelTimes

```
public java.util.List getTravelTimes()
```

Return the travel times requested for this route

**Returns:** 

## getTravelTimesInterval

```
public int getTravelTimesInterval()
```

Method to get the interval between travel times of this RouteTravelTime. If there are at least two travel times in the list the difference between the first two times are returned.

#### **Returns:**

## com.inrix.sdk.model Class TripInformation.TravelTime

public static class **TripInformation.TravelTime** extends java.lang.Object

Travel Time class represents a prediction of a travel time in a particular route starting at a particular departure time or ending at a particular arrival time. This class specifies the travel time for that departure time or arrival time it also has other information such as road closures, restrictions, average speed and any abnormality travel time in minutes.

### **Fields**

### departureTimeStringUtc

private java.lang.String departureTimeStringUtc

## arrival Time String Utc

private java.lang.String arrivalTimeStringUtc

#### travelTimeMinutes

private int travelTimeMinutes

### abnormalityMinutes

private int abnormalityMinutes

### averageSpeed

private double averageSpeed

### routeHasClosures

private boolean routeHasClosures

### routeRestricted

private boolean routeRestricted

### routeQuality

private com.inrix.sdk.model.TripInformation.TravelTime.RouteQuality routeQuality

### Constructors

## **TripInformation.TravelTime**

public TripInformation.TravelTime()

Default constructor

## Methods

### getDepartureTime

public java.util.Date getDepartureTime()

Return the departure time for this travel time

#### **Returns:**

- The departure time for this travel time as returned from the server for this route. This will return null if the departure time is null or invalid

### getArrivalTime

```
public java.util.Date getArrivalTime()
```

Return the arrival time for this travel time

#### **Returns:**

- The arrival time for this travel time as returned from the server for this route. This will return null if the arrival time is null or invalid

### getTravelTime

```
public int getTravelTime()
```

Return the travel time for this route when started at the departure time

#### **Returns:**

- the travel time

### getAbnormailtyMinutes

```
public int getAbnormailtyMinutes()
```

Return the abnormality time for this route when started at the departure time

### **Returns:**

- the abnormal travel time in minutes

### getAverageSpeed

public double getAverageSpeed()

Return the average speed for this route when started at the specified departure time

#### **Returns:**

- The average speed

#### doesRouteHaveClosures

public boolean doesRouteHaveClosures()

Return a flag about route closures

#### Returns:

- true if the route would have closures at the specified departure time false - if there wont be any route closures

### isRouteRestricted

public boolean isRouteRestricted()

Return a flag about route restrictions

#### **Returns:**

- true if the route would have any restrictions at the specified departure time false - if there wont be any route restrictions

## getRouteQuality

public TripInformation.TravelTime.RouteQuality getRouteQuality(int uncongestedMinutes)

Return the quality of the route based on comparison to uncongested travel time

#### **Returns:**

- routeQuality

## determine Route Quality From Uncongested Minutes

private void determineRouteQualityFromUncongestedMinutes(int uncongestedMinutes)

Determine route quality from uncongested minutes.

#### **Parameters:**

uncongestedMinutes - the uncongested minutes

## com.inrix.sdk.model Class TripInformation.TravelTime.RouteQuality

#### All Implemented Interfaces:

java.io.Serializable, java.lang.Comparable

public static final class **TripInformation.TravelTime.RouteQuality** extends java.lang.Enum

Route Quality Enumeration

## Fields

## StopAndGo

 $\verb|public static final com.inrix.sdk.model.TripInformation.TravelTime.RouteQuality | StopAndGo| | StopAndGo|$ 

### Heavy

public static final com.inrix.sdk.model.TripInformation.TravelTime.RouteQuality Heavy

#### **Moderate**

#### **FreeFlow**

 $\verb|public| static| final| com.inrix.sdk.model.TripInformation.TravelTime.RouteQuality | FreeFlow| \\$ 

#### Closed

public static final com.inrix.sdk.model.TripInformation.TravelTime.RouteQuality Closed

### Unknown

 $\verb|public| static| final| com.inrix.sdk.model.TripInformation.TravelTime.RouteQuality | \verb|Unknown| | TripInformation.TravelTime.RouteQuality | TripInformation.TravelTime.TravelTime.RouteQuality | TripInformation.TravelTime.RouteQuality | T$ 

## routeQualityId

public int routeQualityId

## Constructors

## TripInformation.TravelTime.RouteQuality

private TripInformation.TravelTime.RouteQuality(int pRouteQualityId)

## Methods

#### values

public static TripInformation.TravelTime.RouteQuality[] values()

#### valueOf

public static TripInformation.TravelTime.RouteQuality valueOf(java.lang.String name)

## com.inrix.sdk.model Class UserCheckResult

public class **UserCheckResult** extends XMLEntityBase

The response from Mobile.User.Check

## Fields

### isEmailInUse

private boolean isEmailInUse

## Constructors

#### **UserCheckResult**

public UserCheckResult()

## Methods

### **isUserExists**

public boolean isUserExists()