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GENIVI Alliance

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⁴NavigationCore

⁵Component Specification

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⁹GENIVI Alliance

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¹²**Abstract:**

¹³This document provides the Component Specification for the NavigationCore

¹⁴**Keywords:**

¹⁵Navigation, LocationInput, Routing, Guidance

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³<http://www.genivi.org>true

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1 Change History

Version	Date	Author	Change
0.1	27 Feb 2012	Marco Residori (XS Embedded)	Document Created.
0.2	19 Mar 2012	Marco Residori (XS Embedded)	Updated sequence diagrams. Updated <i>Interfaces</i> chapter.
0.3	21 Mar 2012	Marco Residori (XS Embedded)	Updated <i>Interfaces</i> chapter.
1.0	22 Mar 2012	Marco Residori (XS Embedded)	System Architecture Team (SAT) approval.
2.0 (beta)	07 Jun 2013	Marco Residori (XS Embedded)	Updated API description. API Version 2.0.
2.0	17 Jun 2013	Marco Residori (XS Embedded)	Updated API description. API fixes: GT-2691, GT-2689, GT-2651. API Version 2.0 (<i>gemini-final</i> tag)
3.0.0	21 Jan 2014	Marco Residori (XS Embedded)	Updated API description. API Version 3.0.0
3.0.1	22 May 2014	Marco Residori (XS Embedded)	Updated copyright notes.
3.0.2	30 June 2014	Marco Residori (XS Embedded)	Updated contributors list.
4.0	7 Feb 2017	Philippe COLLIOT (PSA GROUPE)	Refine the document for Franca based API
4.1	21 Feb 2018	Philippe COLLIOT (Groupe PSA)	Align with new version of the API

2 Introduction

²This document describes the NavigationCore API.

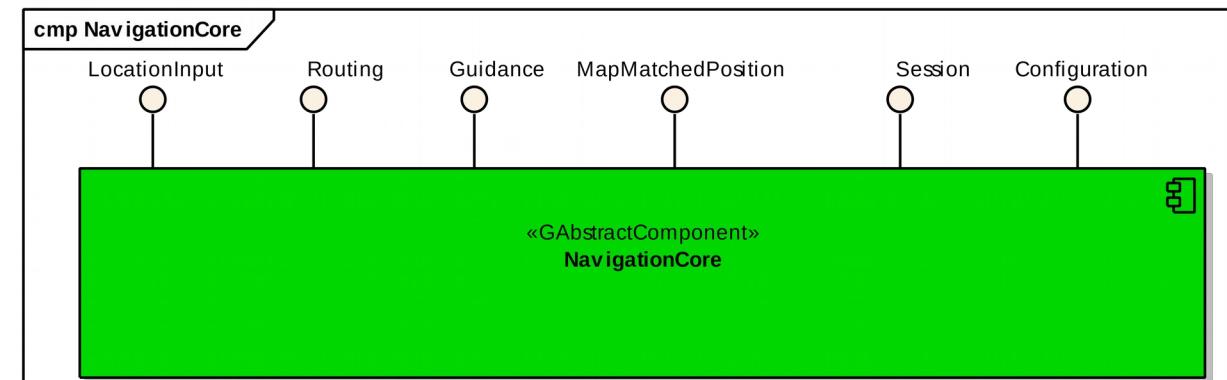
3 Terminology

<i>Term</i>	<i>Description</i>
Link-ID	Identifier of a route segment in a database

4 Architecture

4.1 Interfaces

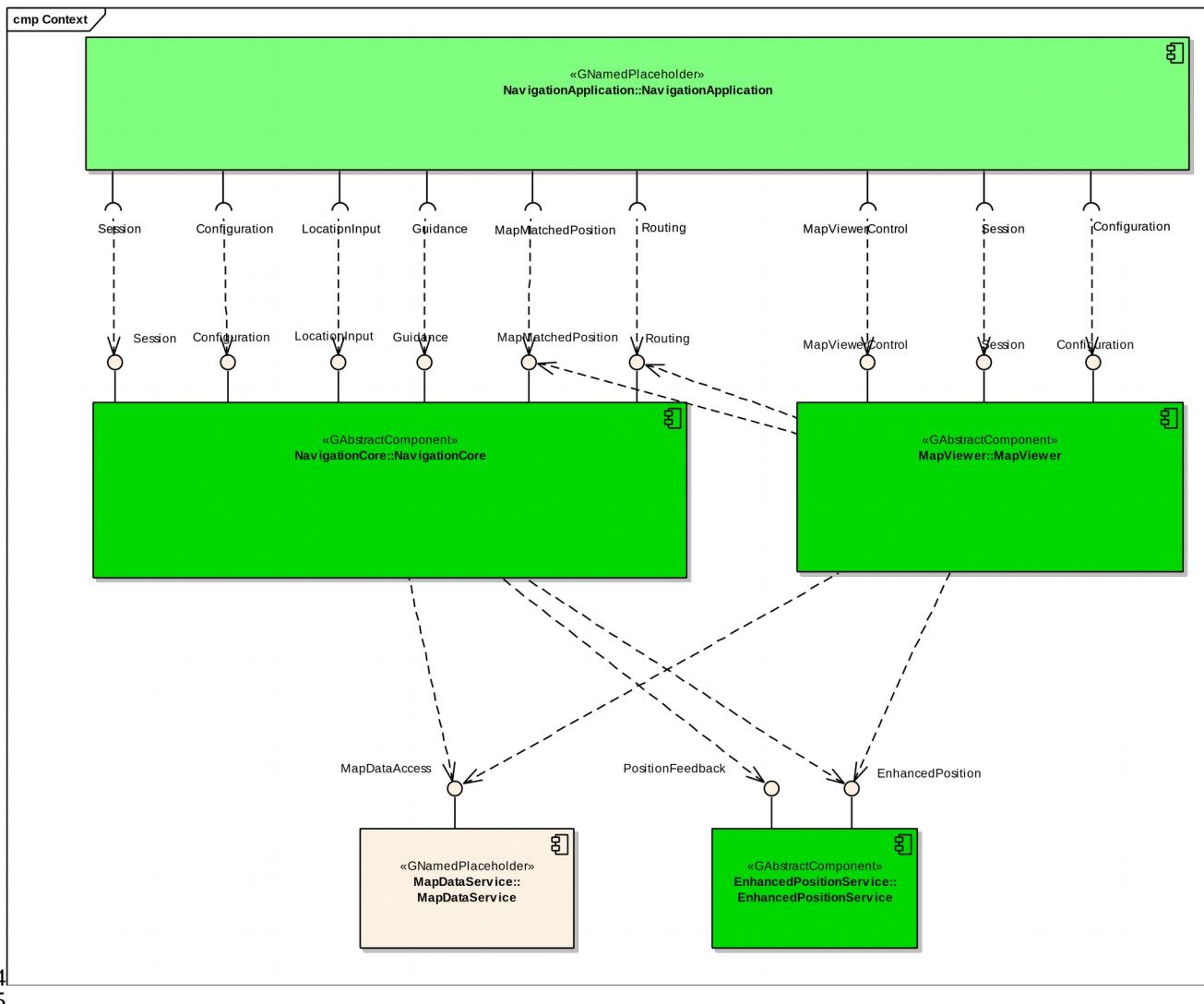
3



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34.2 Interaction with other Components



5 API

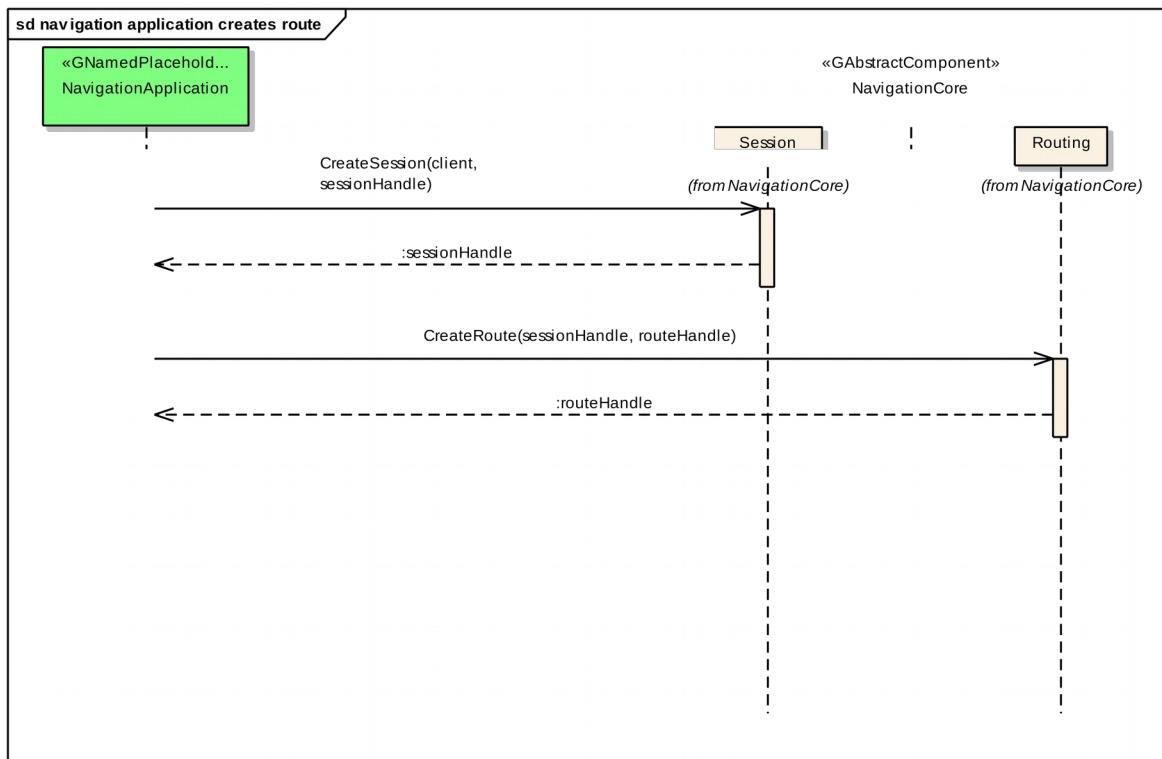
5.1 Git Repository

The NavigationCore interfaces can be found in the GENIVI Git repository at:

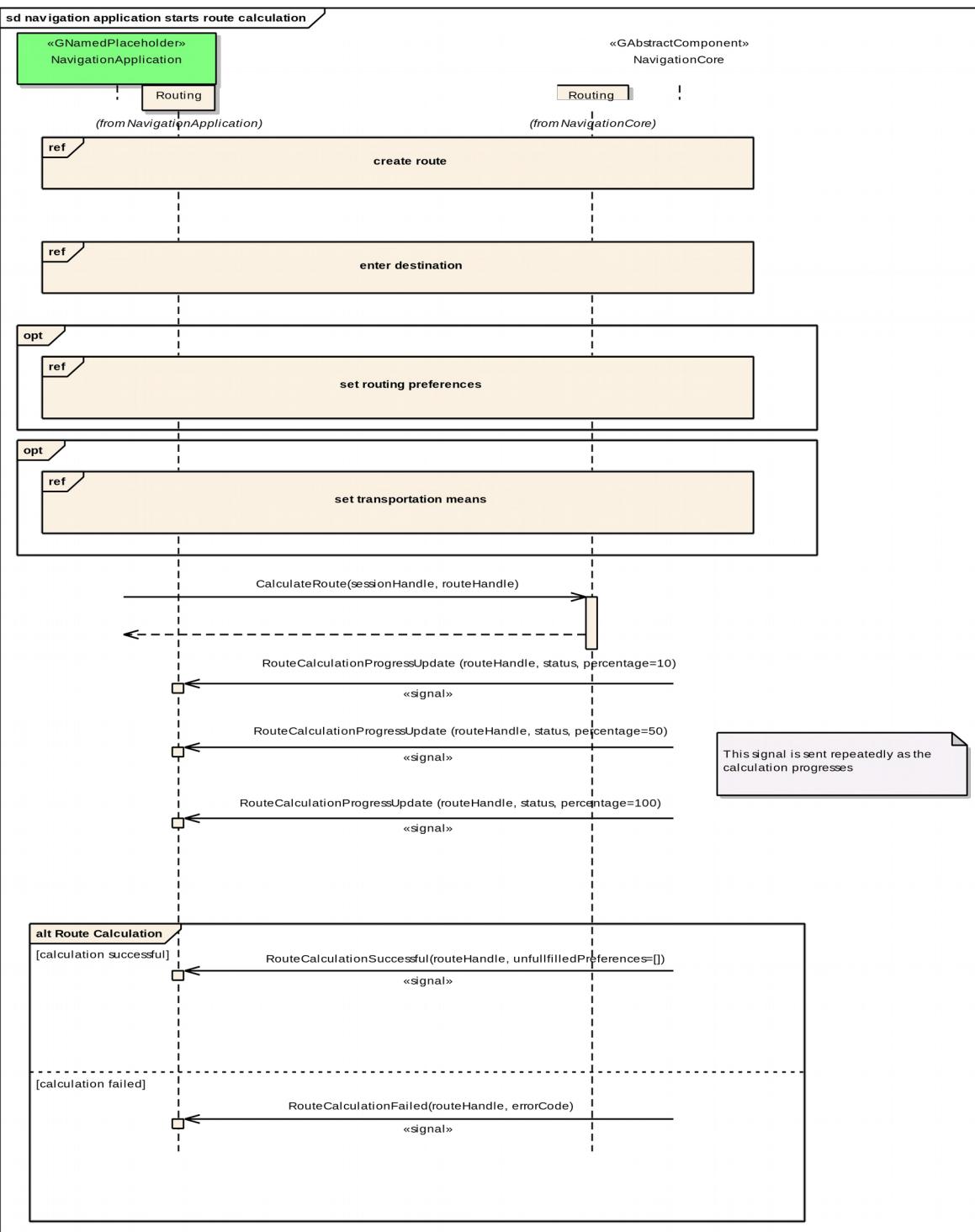
<https://github.com/GENIVI/navigation/tree/master/api/franca/navigation/navigationcore>

5.2 Sequence Diagrams

5.2.1 navigation application creates route



15.2.2 navigation application starts route calculation



1

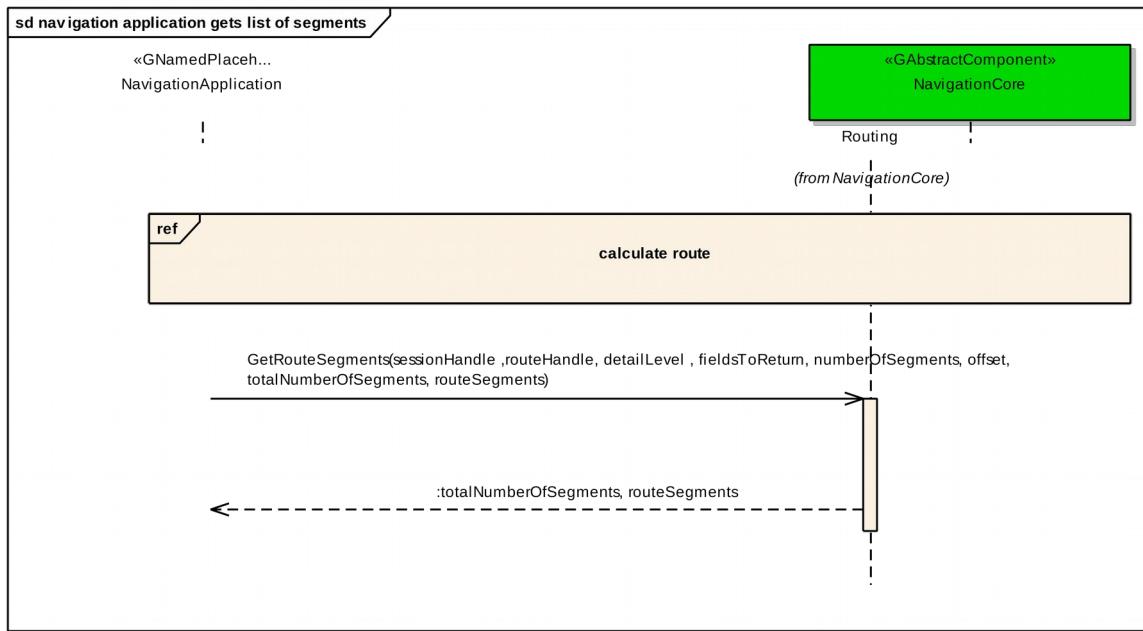
2

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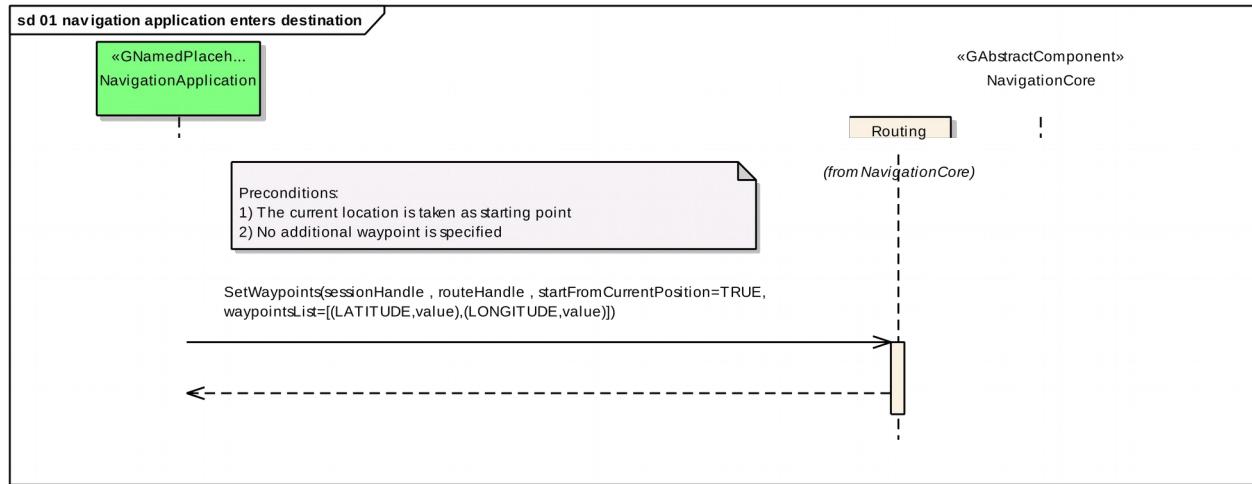
2 5.2.3 navigation application gets list of segments

3

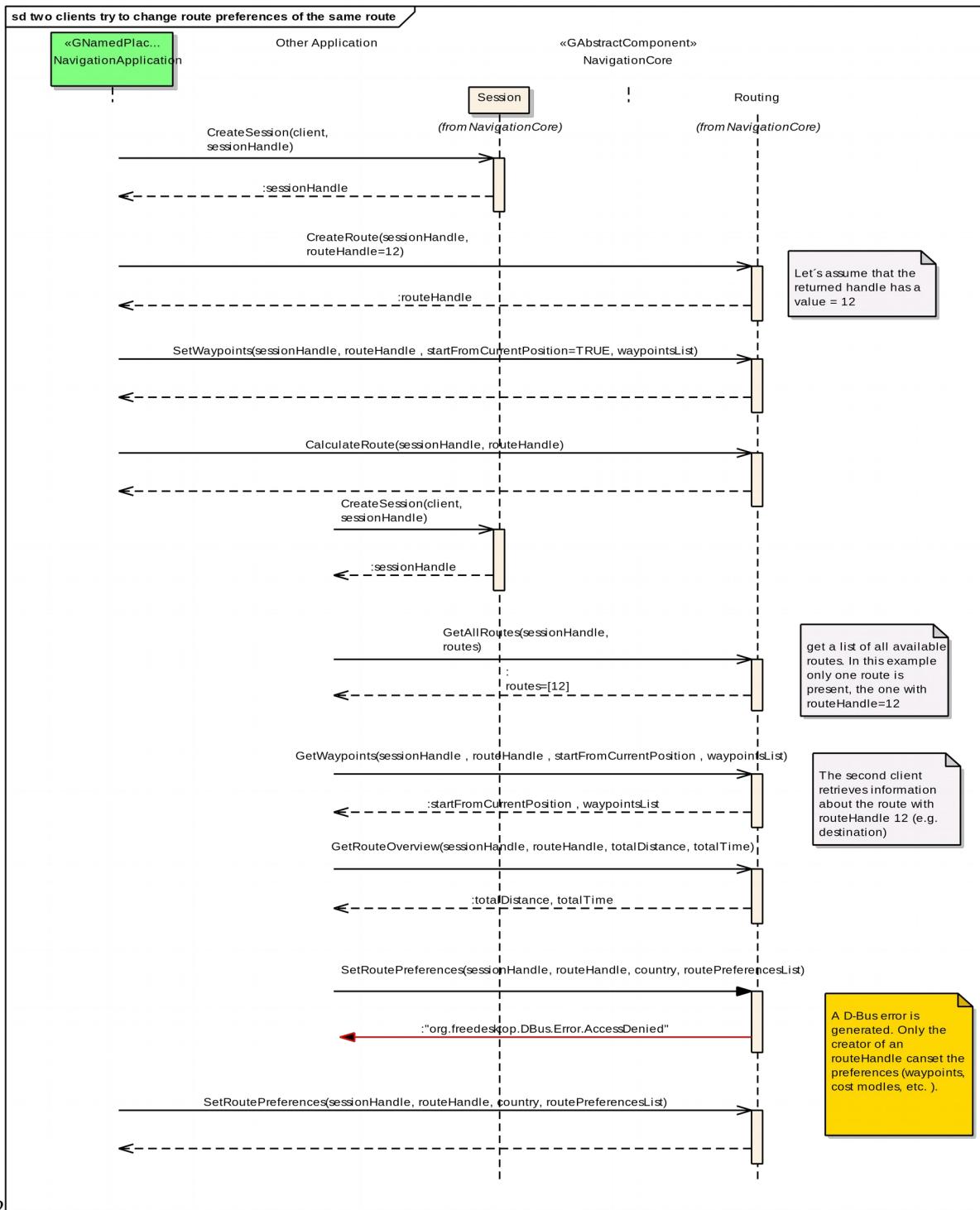
4



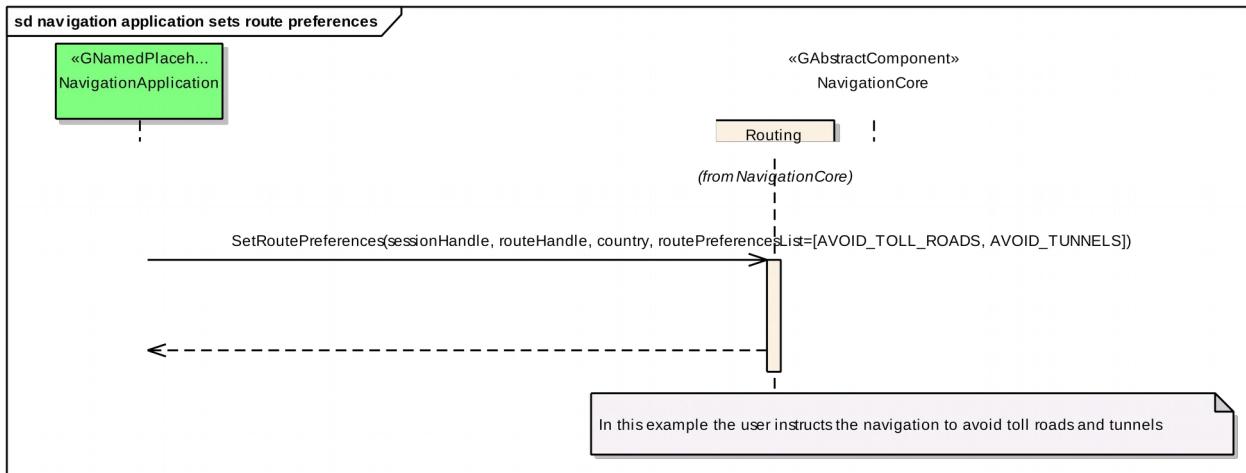
2 5.2.4 navigation application enters destination



15.2.5 two clients try to change route preferences of the same route



3 5.2.6 navigation application sets route preferences



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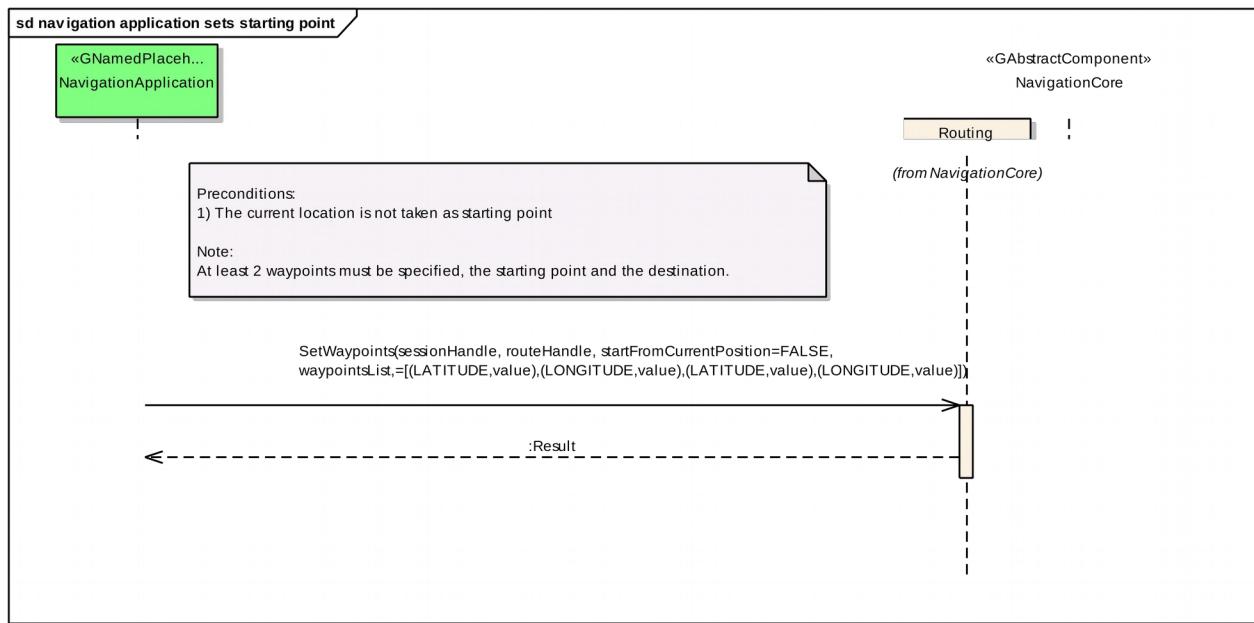
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3 5.2.7 navigation application sets starting point

4

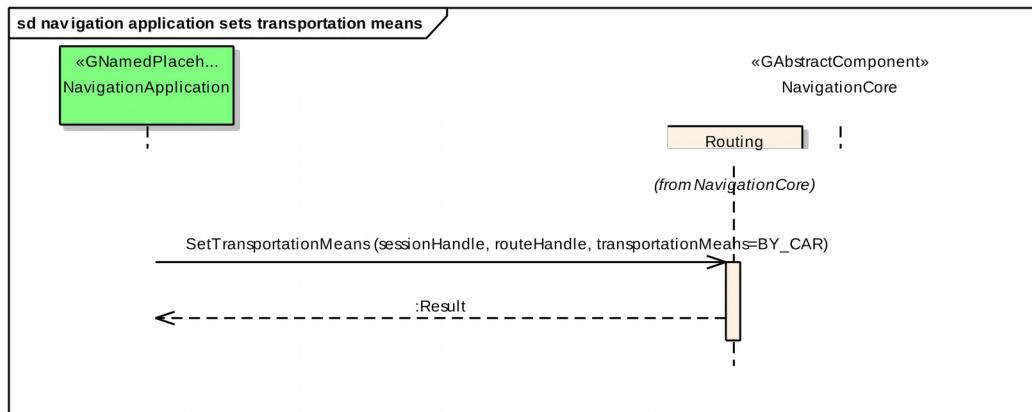
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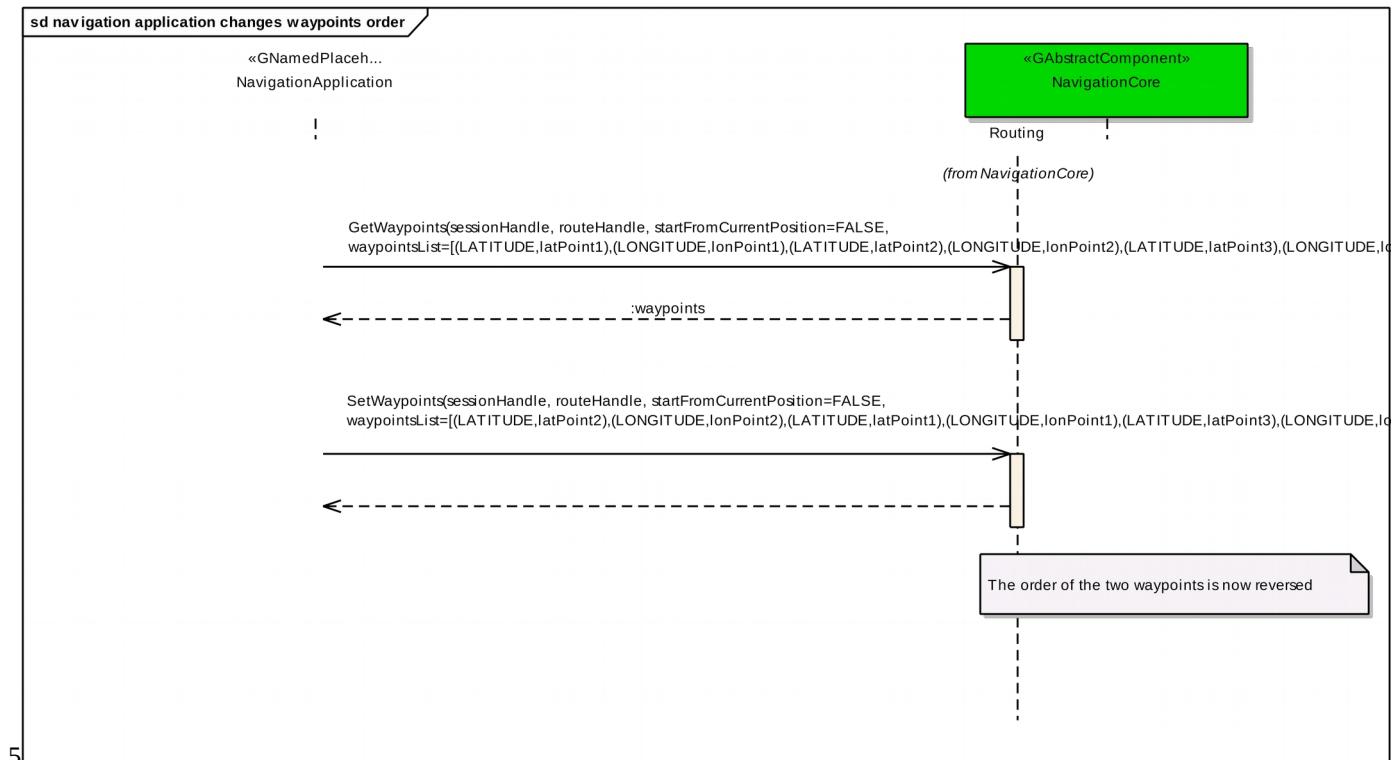
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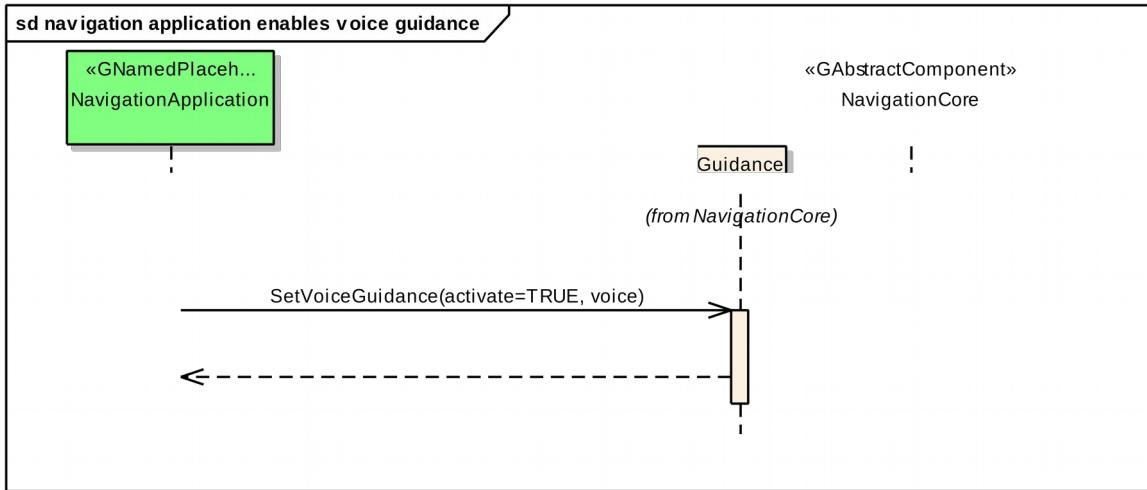
2 5.2.8 navigation application sets transportation means



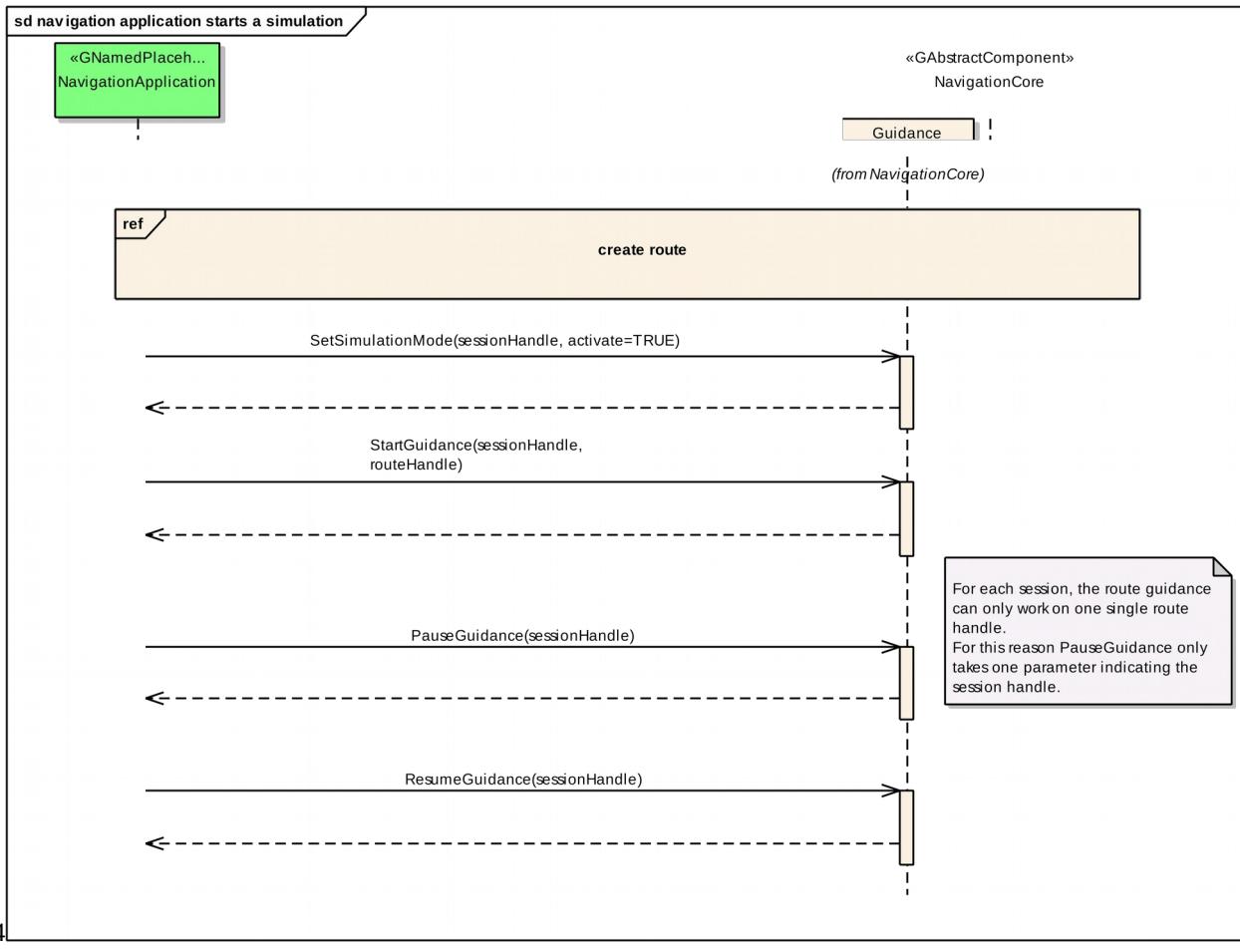
2 5.2.9 navigation application changes waypoints order



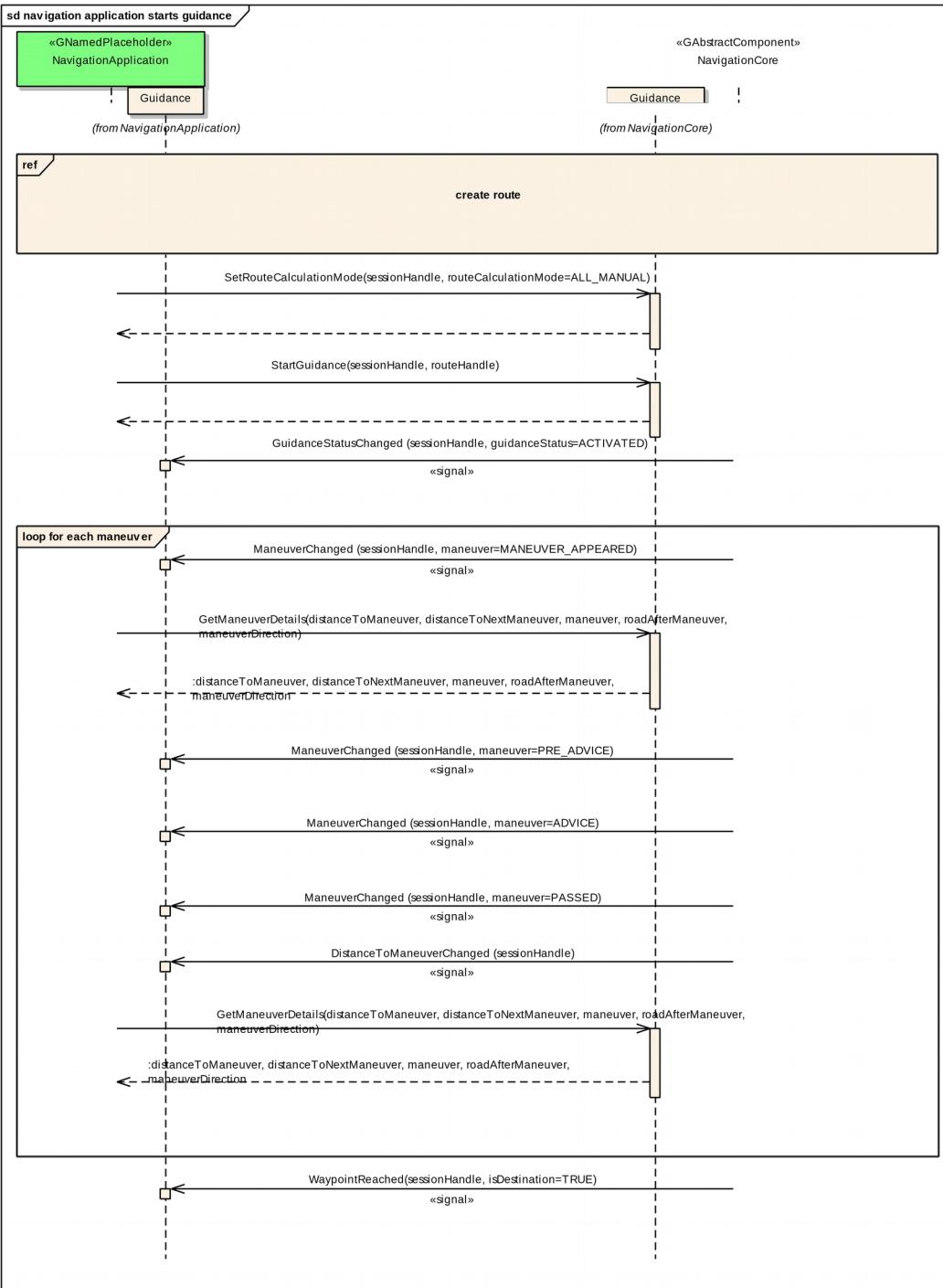
15.2.10 navigation application enables voice guidance



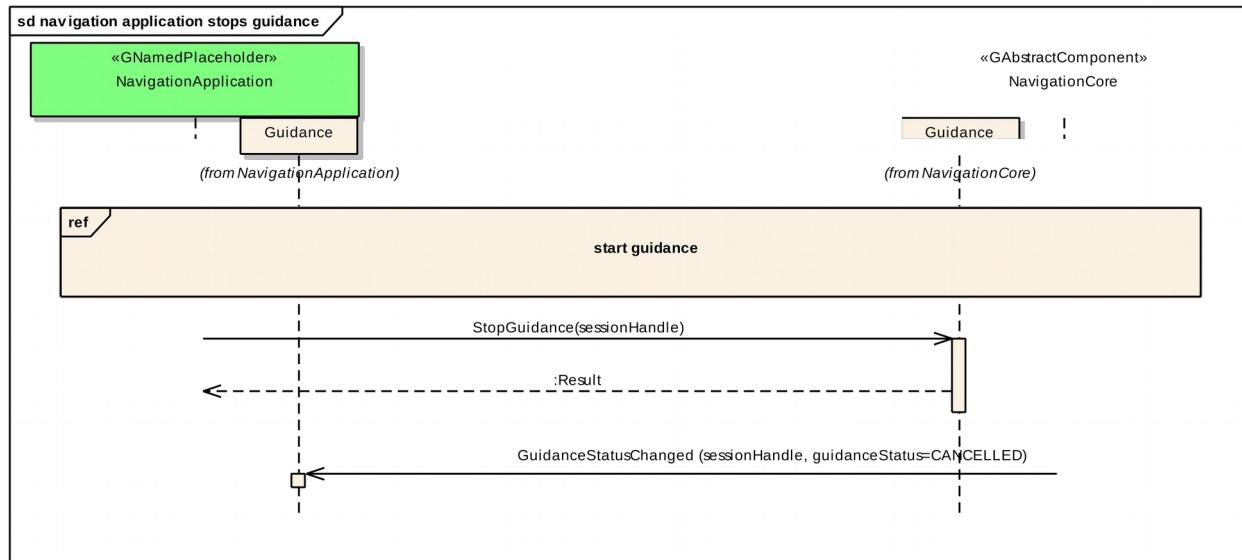
25.2.11 navigation application starts a simulation



15.2.12 navigation application starts guidance

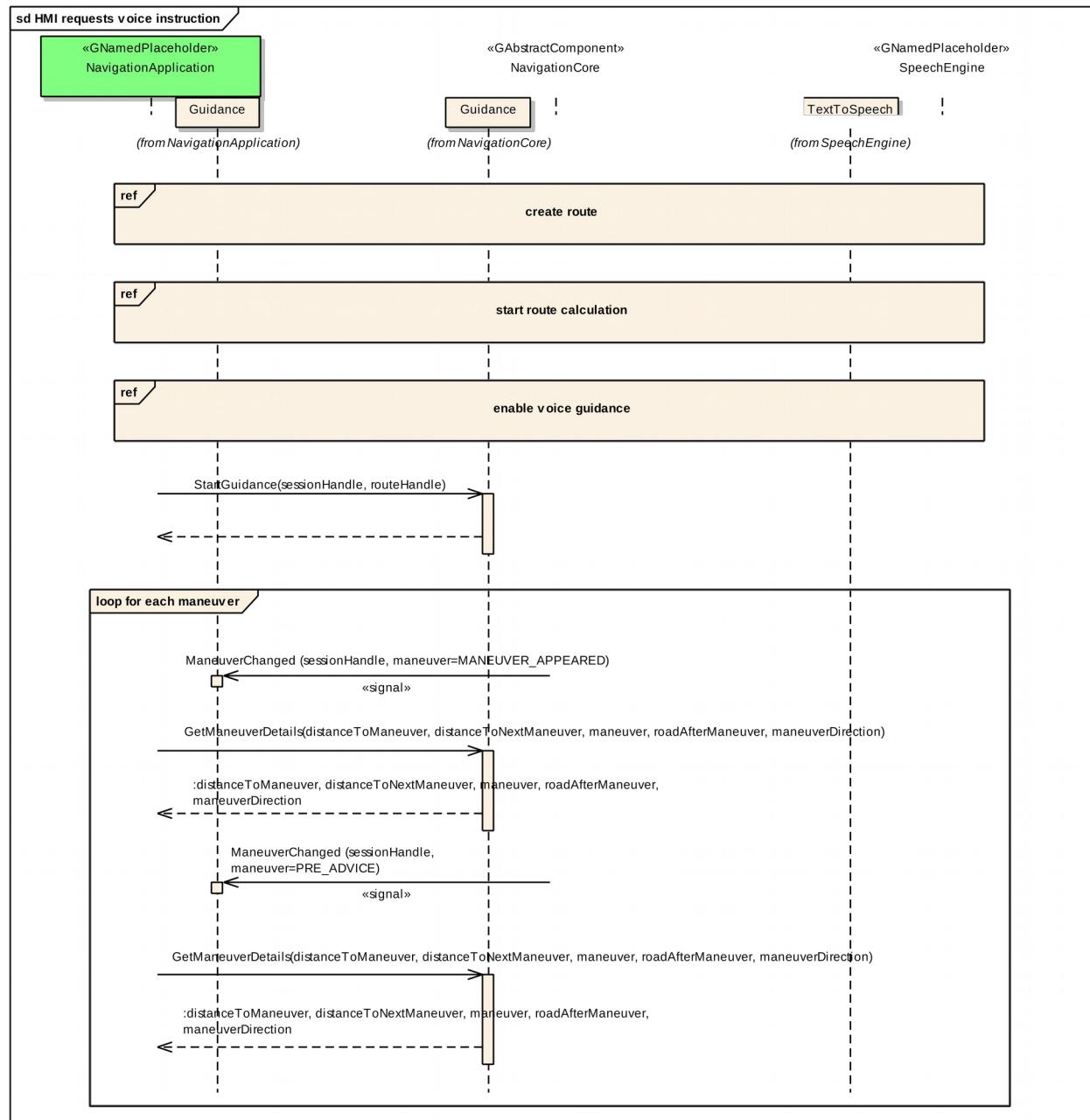


15.2.13 navigation application stops guidance



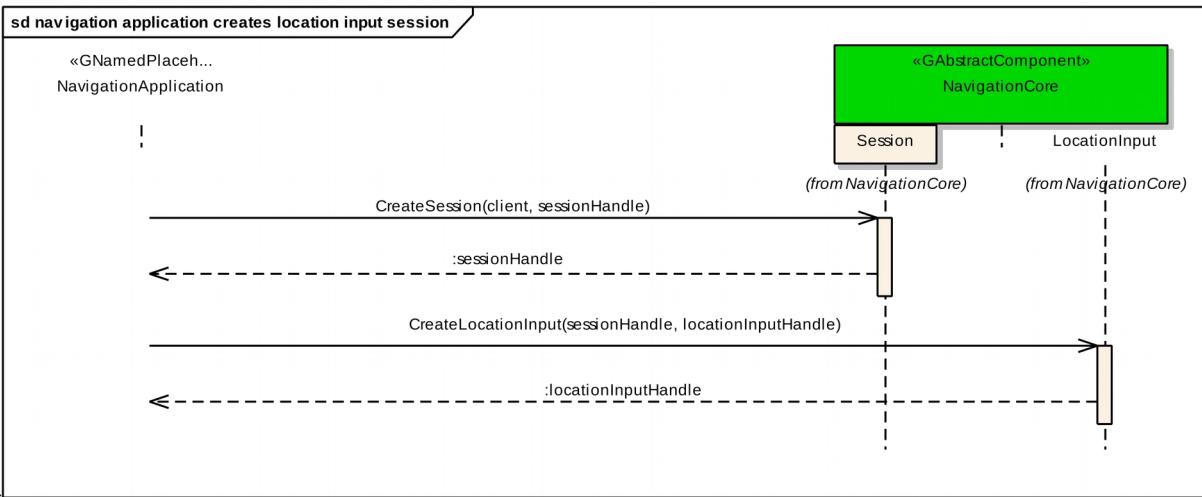
3.5.2.14 HMI requests voice instruction

4

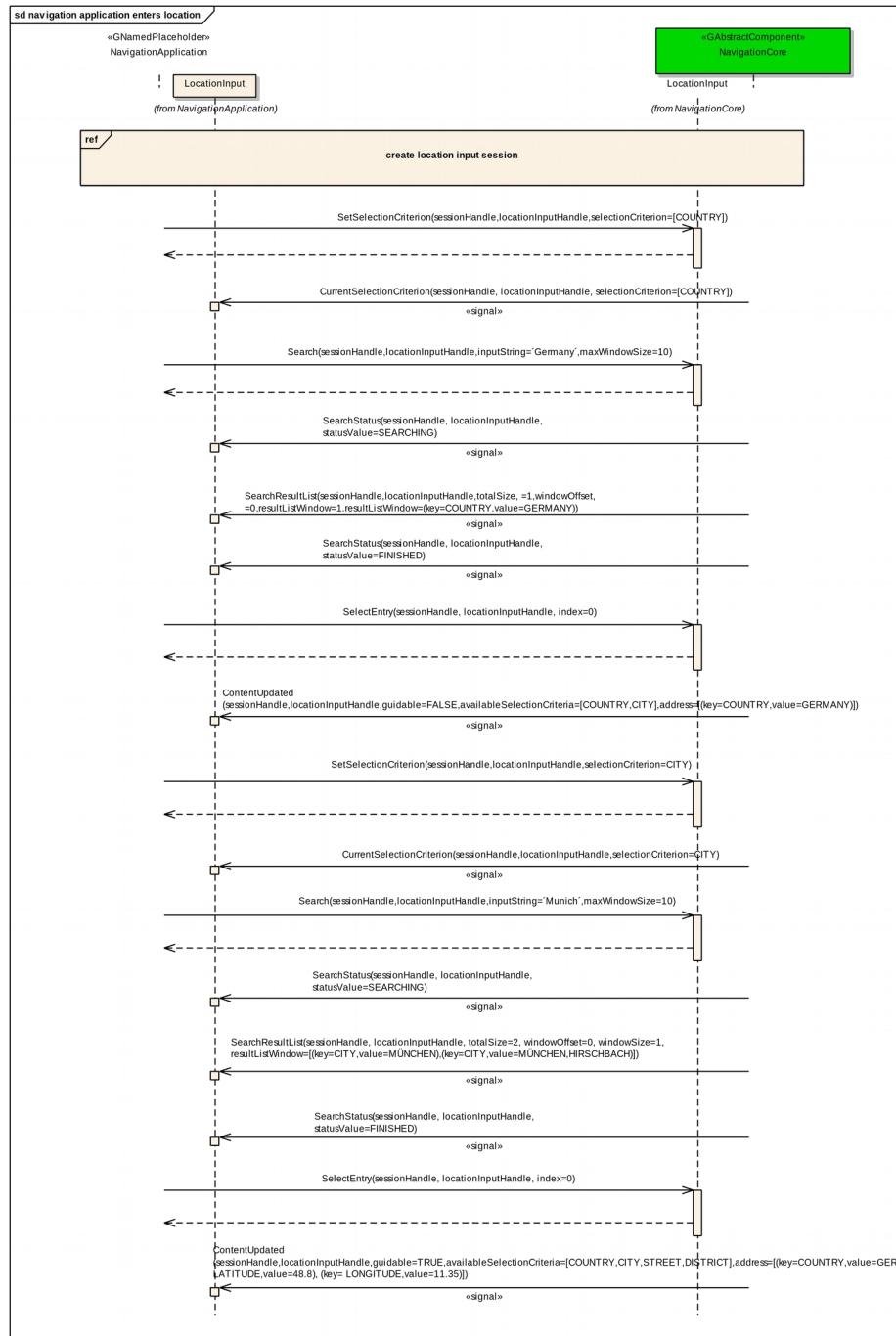


5

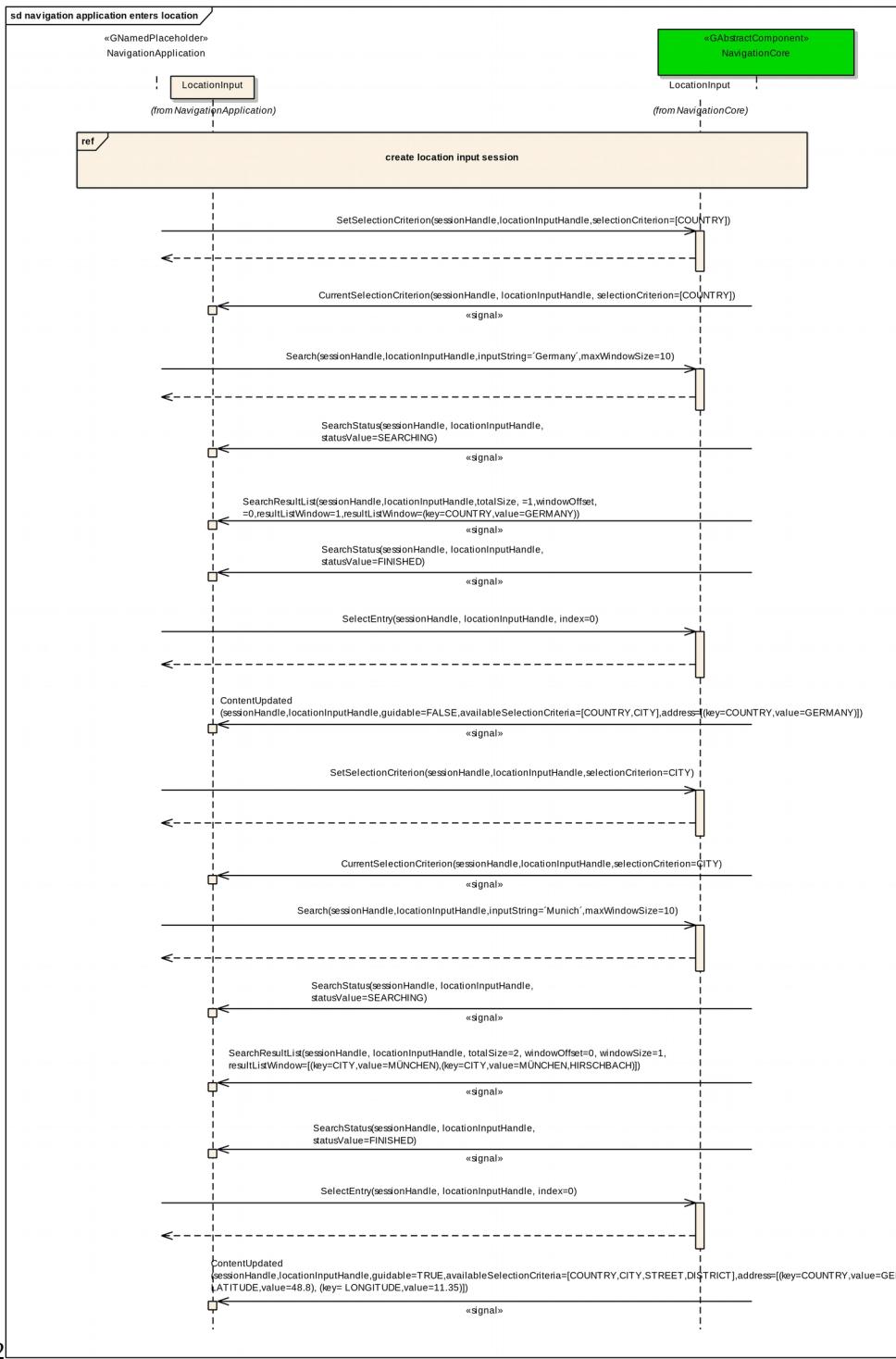
2 5.2.15 navigation application creates location input session



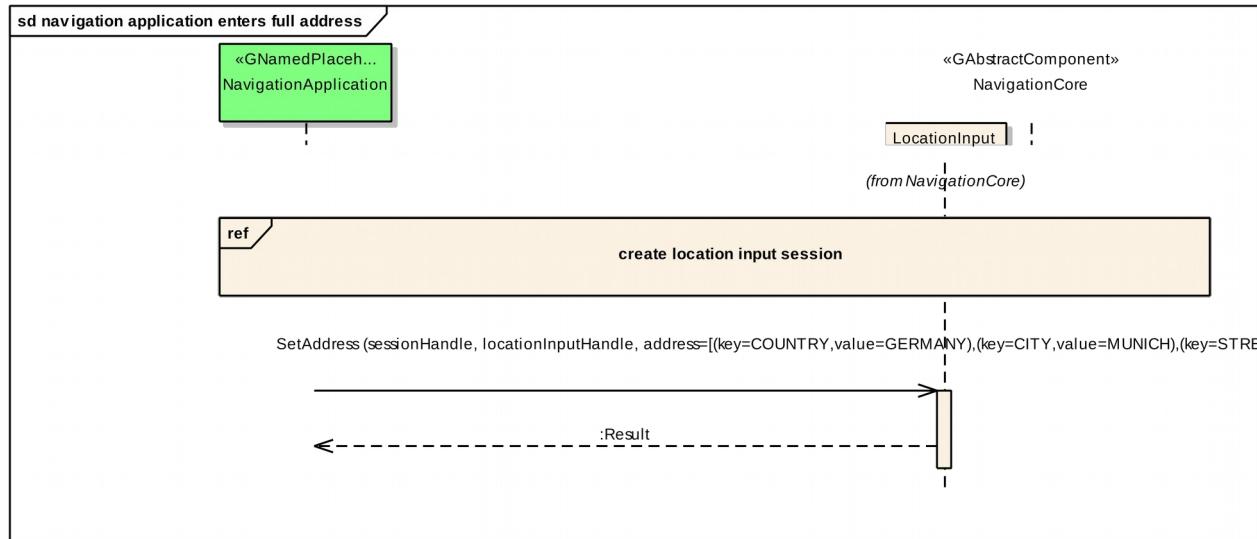
25.2.16 navigation application enters location



15.2.17 navigation application enters location using speller



15.2.18 navigation application enters full address



15.3 Interfaces

25.4 The following pages describe the interfaces of the NavigationCore API.

NavigationCore

Generated by Doxygen 1.8.13

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1 Namespace Documentation

1.1 org Module Reference

Modules

- [genivi](#)

1.2 org::genivi Module Reference

Modules

- [navigation](#)

1.3 org::genivi::navigation Module Reference

Modules

- module [navigationcore](#)

1.4 org::genivi::navigation::navigationcore Module Reference

Classes

- interface [Configuration](#)
- interface [Configuration_client](#)
- interface [Guidance](#)
- interface [Guidance_client](#)
- interface [LocationInput](#)
- interface [LocationInput_client](#)
- interface [MapMatchedPosition](#)
- interface [MapMatchedPosition_client](#)
- interface [NavigationCoreTypes](#)
- interface [Routing](#)
- interface [Routing_client](#)
- interface [Session](#)
- interface [Session_client](#)

2 Class Documentation

2.1 org::genivi::navigation::navigationcore::MapMatchedPosition::AddressItemValue Union Reference

Public Attributes

- String `addressField`
- Int16 `offset`
- Timestamp `timestamp`
- MatchMode `matchMode`
- RoadShield [] `roadShields`

2.1.1 Member Data Documentation

2.1.1.1 `addressField`

```
String org::genivi::navigation::navigationcore::MapMatchedPosition::AddressItemValue::addressField
```

2.1.1.2 `matchMode`

```
MatchMode org::genivi::navigation::navigationcore::MapMatchedPosition::AddressItemValue::matchMode
```

2.1.1.3 `offset`

```
Int16 org::genivi::navigation::navigationcore::MapMatchedPosition::AddressItemValue::offset
```

2.1.1.4 `roadShields`

```
RoadShield [ ] org::genivi::navigation::navigationcore::MapMatchedPosition::AddressItemValue::roadShields
```

2.1.1.5 `timestamp`

```
Timestamp org::genivi::navigation::navigationcore::MapMatchedPosition::AddressItemValue::timestamp
```

The documentation for this union was generated from the following file:

- [MapMatchedPosition.fidl](#)

2.2 org::genivi::navigation::navigationcore::LocationInput::AddressValue Union Reference

Public Attributes

- Int32 [intValue](#)
- Double [doubleValue](#)
- String [stringValue](#)
- Coordinate3D [coordinate3DValue](#)
- UInt8 [] [internalData](#)
- RoadShield [] [roadShields](#)

2.2.1 Member Data Documentation

2.2.1.1 coordinate3DValue

```
Coordinate3D org::genivi::navigation::navigationcore::LocationInput::AddressValue::coordinate3DValue
```

2.2.1.2 doubleValue

```
Double org::genivi::navigation::navigationcore::LocationInput::AddressValue::doubleValue
```

2.2.1.3 internalData

```
UInt8 [ ] org::genivi::navigation::navigationcore::LocationInput::AddressValue::internalData
```

2.2.1.4 intValue

```
Int32 org::genivi::navigation::navigationcore::LocationInput::AddressValue::intValue
```

2.2.1.5 roadShields

```
RoadShield [ ] org::genivi::navigation::navigationcore::LocationInput::AddressValue::roadShields
```

2.2.1.6 stringValue

```
String org::genivi::navigation::navigationcore::LocationInput::AddressValue::stringValue
```

The documentation for this union was generated from the following file:

- [LocationInput.fidl](#)

2.3 org::genivi::navigation::navigationcore::Routing::BlockedRouteElement Struct Reference

Public Attributes

- UInt32 offset
- UInt32 length

2.3.1 Member Data Documentation

2.3.1.1 length

```
UInt32 org::genivi::navigation::navigationcore::Routing::BlockedRouteElement::length
```

2.3.1.2 offset

```
UInt32 org::genivi::navigation::navigationcore::Routing::BlockedRouteElement::offset
```

The documentation for this struct was generated from the following file:

- [Routing.fidl](#)

2.4 org::genivi::navigation::navigationcore::Routing::ConditionPreference Struct Reference

Public Attributes

- PreferenceMode mode
- ConditionPreferenceSource source

2.4.1 Member Data Documentation

2.4.1.1 mode

```
PreferenceMode org::genivi::navigation::navigationcore::Routing::ConditionPreference::mode
```

2.4.1.2 source

```
ConditionPreferenceSource org::genivi::navigation::navigationcore::Routing::ConditionPreference::source
```

The documentation for this struct was generated from the following file:

- [Routing.fidl](#)

2.5 org::genivi::navigation::navigationcore::Configuration Interface Reference

Public Types

- enum `Settings` {

 `INVALID` = 0, `UNITS_OF_MEASUREMENT` = 48, `LOCALE` = 37, `TIME_FORMAT` = 3,

 `COORDINATES_FORMAT` = 6 }
- enum `UnitsOfMeasurementAttribute` { `INVALID` = 0, `LENGTH` = 49 }
- enum `UnitsOfMeasurementValue` {

 `METER` = 50, `MILE` = 51, `KM` = 52, `YARD` = 53,

 `FOOT` = 54 }
- enum `CoordinatesFormat` { `INVALID` = 0, `DEGREES` = 1, `MINUTES` = 2, `SECONDS` = 3 }
- typedef `UnitsOfMeasurementValue` [] `UnitsOfMeasurementListValue`

Public Member Functions

- void `getVersion` (out Version version)
- void `setLocale` (in String languageCode, in String countryCode, in String scriptCode)
- void `getLocale` (out String languageCode, out String countryCode, out String scriptCode)
- void `getSupportedLocales` (out Locale localeList)
- void `setTimeFormat` (in TimeFormat format)
- void `getTimeFormat` (out TimeFormat format)
- void `getSupportedTimeFormats` (out TimeFormat timeFormatList)
- void `setCoordinatesFormat` (in CoordinatesFormat coordinatesFormat)
- void `getCoordinatesFormat` (out CoordinatesFormat coordinatesFormat)
- void `getSupportedCoordinatesFormat` (out CoordinatesFormat coordinatesFormatList)
- void `setUnitsOfMeasurement` (in UnitsOfMeasurement unitsOfMeasurement)
- void `getUnitsOfMeasurement` (out UnitsOfMeasurement unitsOfMeasurement)
- void `getSupportedUnitsOfMeasurement` (out UnitsOfMeasurementList unitsOfMeasurementList)

Public Attributes

- map_UnitsOfMeasurement `UnitsOfMeasurementAttribute` =>`UnitsOfMeasurementValue`
- map_UnitsOfMeasurementList `UnitsOfMeasurementAttribute` =>`UnitsOfMeasurementListValue`

2.5.1 Detailed Description

#comment : This interface offers methods that implement the navigation core configuration functionality of a navigation system.

2.5.2 Member Typedef Documentation

2.5.2.1 UnitsOfMeasurementListValue

```
typedef UnitsOfMeasurementValue [ ] org::genivi::navigation::navigationcore::Configuration::UnitsOfMeasurementListValue
```

2.5.3 Member Enumeration Documentation

2.5.3.1 CoordinatesFormat

```
enum org::genivi::navigation::navigationcore::Configuration::CoordinatesFormat
```

Enumerator

INVALID	
DEGREES	
MINUTES	
SECONDS	

2.5.3.2 Settings

```
enum org::genivi::navigation::navigationcore::Configuration::Settings
```

Enumerator

INVALID	
UNITS_OF_MEASUREMENT	
LOCALE	
TIME_FORMAT	
COORDINATES_FORMAT	

2.5.3.3 UnitsOfMeasurementAttribute

```
enum org::genivi::navigation::navigationcore::Configuration::UnitsOfMeasurementAttribute
```

Enumerator

INVALID	
LENGTH	

2.5.3.4 UnitsOfMeasurementValue

```
enum org::genivi::navigation::navigationcore::Configuration::UnitsOfMeasurementValue
```

Enumerator

METER	
MILE	
KM	
YARD	
FOOT	

2.5.4 Member Function Documentation

2.5.4.1 `getCoordinatesFormat()`

```
void org::genivi::navigation::navigationcore::Configuration::getCoordinatesFormat (
    out CoordinatesFormat coordinatesFormat )
```

#comment : Get the coordinates format .

2.5.4.2 `getLocale()`

```
void org::genivi::navigation::navigationcore::Configuration::getLocale (
    out String languageCode,
    out String countryCode,
    out String scriptCode )
```

#comment : Get the current language set .

2.5.4.3 `getSupportedCoordinatesFormat()`

```
void org::genivi::navigation::navigationcore::Configuration::getSupportedCoordinatesFormat (
    out CoordinatesFormat coordinatesFormatList )
```

#comment : Get the supported set of coordinates format .

2.5.4.4 `getSupportedLocales()`

```
void org::genivi::navigation::navigationcore::Configuration::getSupportedLocales (
    out Locale localeList )
```

#comment : Get the supported set of locales .

2.5.4.5 `getSupportedTimeFormats()`

```
void org::genivi::navigation::navigationcore::Configuration::getSupportedTimeFormats (
    out TimeFormat timeFormatList )
```

#comment : Get the supported set of time format .

2.5.4.6 `getSupportedUnitsOfMeasurement()`

```
void org::genivi::navigation::navigationcore::Configuration::getSupportedUnitsOfMeasurement (
    out UnitsOfMeasurementList unitsOfMeasurementList )
```

#comment : Get the supported set of units of measurement .

2.5.4.7 `getTimeFormat()`

```
void org::genivi::navigation::navigationcore::Configuration::getTimeFormat (
    out TimeFormat format )
```

#comment : Get the current time format .

2.5.4.8 getUnitsOfMeasurement()

```
void org::genivi::navigation::navigationcore::Configuration::getUnitsOfMeasurement (
    out UnitsOfMeasurement unitsOfMeasurement )
```

#comment : Get the units of measurement .

2.5.4.9 getVersion()

```
void org::genivi::navigation::navigationcore::Configuration::getVersion (
    out Version version )
```

#comment : This method returns the API version .

2.5.4.10 setCoordinatesFormat()

```
void org::genivi::navigation::navigationcore::Configuration::setCoordinatesFormat (
    in CoordinatesFormat coordinatesFormat )
```

#comment : Set the coordinates format.

2.5.4.11 setLocale()

```
void org::genivi::navigation::navigationcore::Configuration::setLocale (
    in String languageCode,
    in String countryCode,
    in String scriptCode )
```

#comment : Set the current language set. If the language is not supported, the default details will be returned in the native language.

2.5.4.12 setTimeFormat()

```
void org::genivi::navigation::navigationcore::Configuration::setTimeFormat (
    in TimeFormat format )
```

#comment : Set the time format.

2.5.4.13 setUnitsOfMeasurement()

```
void org::genivi::navigation::navigationcore::Configuration::setUnitsOfMeasurement (
    in UnitsOfMeasurement unitsOfMeasurement )
```

#comment : Set the units of measurement .

2.5.5 Member Data Documentation

2.5.5.1 UnitsOfMeasurementAttribute [1/2]

```
map_UnitsOfMeasurement org::genivi::navigation::navigationcore::Configuration::UnitsOfMeasurement<-
Attribute =>UnitsOfMeasurementValue
```

2.5.5.2 UnitsOfMeasurementAttribute [2/2]

```
map_UnitsOfMeasurementList org::genivi::navigation::navigationcore::Configuration::UnitsOfMeasurement<-
MeasurementAttribute =>UnitsOfMeasurementListValue
```

The documentation for this interface was generated from the following file:

- [Configuration.fidl](#)

2.6 org::genivi::navigation::navigationcore::Configuration_client Interface Reference

Public Member Functions

- void [configurationChanged](#) (in Settings changedSettings)

2.6.1 Member Function Documentation

2.6.1.1 configurationChanged()

```
void org::genivi::navigation::navigationcore::Configuration_client::configurationChanged (
    in Settings changedSettings )
```

broadcast #comment : ConfigurationChanged = This signal is sent to the clients when one or more configuration settings changes

The documentation for this interface was generated from the following file:

- [Configuration.fidl](#)

2.7 org::genivi::navigation::navigationcore::Guidance Interface Reference

Classes

- struct [LaneInfo](#)
- struct [Maneuver](#)
- union [ManeuverDataValue](#)
- struct [ManeuverItem](#)
- struct [WaypointStruct](#)

Public Types

- enum `Side` : BasicEnum { `LEFT` = 128, `RIGHT` = 131, `NOT_AVAILABLE` = 2 }
- enum `LaneType` : BasicEnum {
 `LANE_INFO_BITMASK_STRAIGHT` = 1, `LANE_INFO_BITMASK_SLIGHTRIGHT` = 2, `LANE_INFO_BITMASK_RIGHT` = 4, `LANE_INFO_BITMASK_SHARPRIGHT` = 8,
 `LANE_INFO_BITMASK_RIGHTTURN` = 16, `LANE_INFO_BITMASK_SLIGHTLEFT` = 32, `LANE_INFO_BITMASK_LEFT` = 64, `LANE_INFO_BITMASK_SHARPLEFT` = 128,
 `LANE_INFO_BITMASK_LEFTTURN` = 256
 }
- enum `PromptMode` : BasicEnum { `DISABLED_PROMPT` = 65, `AUTOMATIC_PROMPT` = 66, `MANUAL_PROMPT` = 67 }
- enum `ManeuverPhase` : BasicEnum {
 `CRUISE` = 80, `MANEUVER_APPEARED` = 81, `PRE_ADVICE` = 82, `ADVICE` = 83,
 `PASSED` = 84
 }
- enum `GuidanceStatus` : BasicEnum { `ACTIVE` = 96, `INACTIVE` = 97 }
- enum `ManeuverType` : BasicEnum {
 `STRAIGHT_ON` = 112, `CROSSROAD` = 113, `ROUNABOUT` = 114, `HIGHWAY_ENTER` = 115,
 `HIGHWAY_EXIT` = 116, `FOLLOW_SPECIFIC_LANE` = 117, `DESTINATION` = 118, `WAYPOINT` = 119,
 `TURN` = 120, `BIFURCATION` = 121
 }
- enum `ManeuverDirection` : BasicEnum {
 `STRAIGHT` = 127, `LEFT` = 128, `SLIGHT_LEFT` = 129, `HARD_LEFT` = 130,
 `RIGHT` = 131, `SLIGHT_RIGHT` = 132, `HARD_RIGHT` = 133, `UTURN_RIGHT` = 134,
 `UTURN_LEFT` = 135
 }
- enum `CalculationMode` : BasicEnum { `ALL_MANUAL` = 144, `ALL_AUTOMATIC` = 145, `TRAFFIC_MANUAL` = 146, `OFF_ROUTE_MANUAL` = 147 }
- enum `RoadProperty` : BasicEnum { `DEFAULT` = 65534, `TOLL_ROADS` = 369 }
- enum `RouteChangedCause` : BasicEnum { `TRAFFIC` = 528, `OFF_ROUTE` = 529, `MANUAL` = 530 }
- enum `ManeuverDirectionType` : BasicEnum { `DIRECTION` = 576, `EXIT_NUMBER` = 577, `ROAD_FORM` = 578, `LANE_INFO` = 579 }
- enum `LaneDivider` : BasicEnum {
 `DIVIDER_UNDEFINED` = 592, `DIVIDER_INTERRUPTEDLONG` = 593, `DIVIDER_INTERRUPTEDSHORT` = 594,
 `DIVIDER_SOLID_SINGLE` = 595,
 `DIVIDER_SOLIDDOUBLE` = 596, `DIVIDER_SOLID_INTERRUPTED` = 597, `DIVIDER_INTERRUPTEDSOLID` = 598
 }
- enum `RoadForm` : BasicEnum { `ROAD_REGULAR` = 561, `ROAD_HIGHWAY_MOTORWAY` = 562, `ROAD_FERRY` = 563 }
- enum `ManeuverDataAttribute` : BasicEnum {
 `LENGTH` = 608, `DIRECTION` = 576, `EXIT_NUMBER` = 577, `ROAD_FORM` = 578,
 `LANE_INFO` = 579, `COORDINATE` = 613
 }

Public Member Functions

- void `getVersion` (out Version `version`)
- void `startGuidance` (in Handle `sessionHandle`, in Handle `routeHandle`)
- void `stopGuidance` (in Handle `sessionHandle`)
- void `setVoiceGuidance` (in Boolean `activate`, in String `voice`)
- void `getGuidanceDetails` (out Boolean `voiceGuidance`, out Boolean `vehicleOnTheRoad`, out Boolean `isDestinationReached`, out `ManeuverPhase` `maneuver`)
- void `playVoiceManeuver` ()
- void `getWaypointInformation` (in UInt16 `requestedNumberOfWaypoints`, out UInt16 `numberOfWaypoints`, out `WaypointStruct` `waypointsList`)
- void `getDestinationInformation` (out UInt32 `offset`, out UInt32 `travelTime`, out Int32 `direction`, out `Side` `side`, out Int16 `timeZone`, out Int16 `daylightSavingTime`)
- void `getManeuversList` (in UInt16 `requestedNumberOfManeuvers`, in UInt32 `maneuverOffset`, out UInt16 `numberOfManeuvers`, out `Maneuver` `maneuversList`)
- void `setRouteCalculationMode` (in Handle `sessionHandle`, in `CalculationMode` `routeCalculationMode`)

- void `skipNextManeuver` (in Handle sessionHandle)
- void `getGuidanceStatus` (out `GuidanceStatus` guidanceStatus, out Handle routeHandle)
- void `setVoiceGuidanceSettings` (in `PromptMode` promptMode)
- void `getVoiceGuidanceSettings` (out `PromptMode` promptMode)

Public Attributes

- map_ `ManeuverData` `ManeuverDataAttribute` => `ManeuverDataValue`

2.7.1 Detailed Description

#comment : `Guidance` = This interface offers functions that implement the route-guidance functionality of a navigation system

2.7.2 Member Enumeration Documentation

2.7.2.1 CalculationMode

enum `org::genivi::navigation::navigationcore::Guidance::CalculationMode` : `BasicEnum`

Enumerator

<code>ALL_MANUAL</code>	
<code>ALL_AUTOMATIC</code>	
<code>TRAFFIC_MANUAL</code>	
<code>OFF_ROUTE_MANUAL</code>	

2.7.2.2 GuidanceStatus

enum `org::genivi::navigation::navigationcore::Guidance::GuidanceStatus` : `BasicEnum`

Enumerator

<code>ACTIVE</code>	
<code>INACTIVE</code>	

2.7.2.3 LaneDivider

enum `org::genivi::navigation::navigationcore::Guidance::LaneDivider` : `BasicEnum`

Enumerator

DIVIDER_UNDEFINED	
DIVIDER_INTERRUPTEDLONG	
DIVIDER_INTERRUPTEDSHORT	
DIVIDER_SOLID SINGLE	
DIVIDER_SOLID DOUBLE	
DIVIDER_SOLIDINTERRUPTED	
DIVIDER_INTERRUPTEDSOLID	

2.7.2.4 LaneType

```
enum org::genivi::navigation::navigationcore::Guidance::LaneType : BasicEnum
```

Enumerator

LANE_INFO_BITMASK_STRAIGHT	
LANE_INFO_BITMASK_SLIGHTRIGHT	
LANE_INFO_BITMASK_RIGHT	
LANE_INFO_BITMASK_SHARPRIGHT	
LANE_INFO_BITMASK_RIGHTTURN	
LANE_INFO_BITMASK_SLIGHTLEFT	
LANE_INFO_BITMASK_LEFT	
LANE_INFO_BITMASK_SHARPLEFT	
LANE_INFO_BITMASK_LEFTTURN	

2.7.2.5 ManeuverDataAttribute

```
enum org::genivi::navigation::navigationcore::Guidance::ManeuverDataAttribute : BasicEnum
```

Enumerator

LENGTH	
DIRECTION	
EXIT_NUMBER	
ROAD_FORM	
LANE_INFO	
COORDINATE	

2.7.2.6 ManeuverDirection

```
enum org::genivi::navigation::navigationcore::Guidance::ManeuverDirection : BasicEnum
```

Enumerator

STRAIGHT	
LEFT	
SLIGHT_LEFT	
HARD_LEFT	
RIGHT	
SLIGHT_RIGHT	
HARD_RIGHT	
UTURN_RIGHT	
UTURN_LEFT	

2.7.2.7 ManeuverDirectionType

```
enum org::genivi::navigation::navigationcore::Guidance::ManeuverDirectionType : BasicEnum
```

Enumerator

DIRECTION	
EXIT_NUMBER	
ROAD_FORM	
LANE_INFO	

2.7.2.8 ManeuverPhase

```
enum org::genivi::navigation::navigationcore::Guidance::ManeuverPhase : BasicEnum
```

Enumerator

CRUISE	
MANEUVER_APPEARED	
PRE_ADVICE	
ADVICE	
PASSED	

2.7.2.9 ManeuverType

```
enum org::genivi::navigation::navigationcore::Guidance::ManeuverType : BasicEnum
```

Enumerator

STRAIGHT_ON	
CROSSROAD	
ROUNDABOUT	

Enumerator

HIGHWAY_ENTER	
HIGHWAY_EXIT	
FOLLOW_SPECIFIC_LANE	
DESTINATION	
WAYPOINT	
TURN	
BIFURCATION	

2.7.2.10 PromptMode

```
enum org::genivi::navigation::navigationcore::Guidance::PromptMode : BasicEnum
```

Enumerator

DISABLED_PROMPT	
AUTOMATIC_PROMPT	
MANUAL_PROMPT	

2.7.2.11 RoadForm

```
enum org::genivi::navigation::navigationcore::Guidance::RoadForm : BasicEnum
```

Enumerator

ROAD_REGULAR	
ROAD_HIGHWAY_MOTORWAY	
ROAD_FERRY	

2.7.2.12 RoadProperty

```
enum org::genivi::navigation::navigationcore::Guidance::RoadProperty : BasicEnum
```

Enumerator

DEFAULT	
TOLL_ROADS	

2.7.2.13 RouteChangedCause

```
enum org::genivi::navigation::navigationcore::Guidance::RouteChangedCause : BasicEnum
```

Enumerator

TRAFFIC	
OFF_ROUTE	
MANUAL	

2.7.2.14 Side

```
enum org::genivi::navigation::navigationcore::Guidance::Side : BasicEnum
```

Enumerator

LEFT	
RIGHT	
NOT_AVAILABLE	

2.7.3 Member Function Documentation**2.7.3.1 getDestinationInformation()**

```
void org::genivi::navigation::navigationcore::Guidance::getDestinationInformation (
    out UInt32 offset,
    out UInt32 travelTime,
    out Int32 direction,
    out Side side,
    out Int16 timeZone,
    out Int16 daylightSavingTime )
```

#comment : This method retrieves the information on the final destination

2.7.3.2 getGuidanceDetails()

```
void org::genivi::navigation::navigationcore::Guidance::getGuidanceDetails (
    out Boolean voiceGuidance,
    out Boolean vehicleOnTheRoad,
    out Boolean isDestinationReached,
    out ManeuverPhase maneuver )
```

#comment : getGuidanceDetails = This method retrieves guidance information

2.7.3.3 getGuidanceStatus()

```
void org::genivi::navigation::navigationcore::Guidance::getGuidanceStatus (
    out GuidanceStatus guidanceStatus,
    out Handle routeHandle )
```

#comment : getGuidanceStatus = This method retrieves the guidance status

2.7.3.4 getManeuversList()

```
void org::genivi::navigation::navigationcore::Guidance::getManeuversList (
    in UInt16 requestedNumberOfManeuvers,
    in UInt32 maneuverOffset,
    out UInt16 numberOfManeuvers,
    out Maneuver maneuverList )
```

#comment : getManeuversList = This method retrieves the list of next maneuvers

2.7.3.5 getVersion()

```
void org::genivi::navigation::navigationcore::Guidance::getVersion (
    out Version version )
```

#comment : getVersion = This method returns the API version implemented by the server application

2.7.3.6 getVoiceGuidanceSettings()

```
void org::genivi::navigation::navigationcore::Guidance::getVoiceGuidanceSettings (
    out PromptMode promptMode )
```

#comment : getVoiceGuidanceSettings = This method returns the used voice guidance settings

2.7.3.7 getWaypointInformation()

```
void org::genivi::navigation::navigationcore::Guidance::getWaypointInformation (
    in UInt16 requestedNumberOfWaypoints,
    out UInt16 numberOfWaypoints,
    out WaypointStruct waypointsList )
```

#comment : getWaypointInformation = This method retrieves the information on the remaining way points of the route. A point can be the final destination as well as a stage defined by the user. The returned waypoints are ordered by their 'number'.

2.7.3.8 playVoiceManeuver()

```
void org::genivi::navigation::navigationcore::Guidance::playVoiceManeuver ( )
```

#comment : playVoiceManeuver = This method plays or repeats the last voice guidance

2.7.3.9 setRouteCalculationMode()

```
void org::genivi::navigation::navigationcore::Guidance::setRouteCalculationMode (
    in Handle sessionHandle,
    in CalculationMode routeCalculationMode )
```

#comment : setRouteCalculationMode = This method configures the way the navigation application wants the navigation core to behave of reroute trigger

2.7.3.10 setVoiceGuidance()

```
void org::genivi::navigation::navigationcore::Guidance::setVoiceGuidance (
    in Boolean activate,
    in String voice )
```

#comment : setVoiceGuidance = This method switch on/off the voice guidance

2.7.3.11 setVoiceGuidanceSettings()

```
void org::genivi::navigation::navigationcore::Guidance::setVoiceGuidanceSettings (
    in PromptMode promptMode )
```

#comment : setVoiceGuidanceSettings = This method sets the voice guidance settings

2.7.3.12 skipNextManeuver()

```
void org::genivi::navigation::navigationcore::Guidance::skipNextManeuver (
    in Handle sessionHandle )
```

#comment : skipNextManeuver = This method allows to jump behind the current maneuver

2.7.3.13 startGuidance()

```
void org::genivi::navigation::navigationcore::Guidance::startGuidance (
    in Handle sessionHandle,
    in Handle routeHandle )
```

#comment : startGuidance = This method starts the guidance for a given route The guidanceStatus will change to ACTIVE

2.7.3.14 stopGuidance()

```
void org::genivi::navigation::navigationcore::Guidance::stopGuidance (
    in Handle sessionHandle )
```

#comment : stopGuidance = This method stops the guidance The guidanceStatus will change to INACTIVE

2.7.4 Member Data Documentation

2.7.4.1 ManeuverDataAttribute

```
map<ManeuverData, org::genivi::navigation::navigationcore::Guidance::ManeuverDataAttribute> ManeuverDataValue
```

The documentation for this interface was generated from the following file:

- [Guidance.fidl](#)

2.8 org::genivi::navigation::navigationcore::Guidance_client Interface Reference

Public Member Functions

- void [vehicleLeftTheRoadNetwork \(\)](#)
- void [vehicleReturnedToTheRoadNetwork \(\)](#)
- void [guidanceStatusChanged \(in GuidanceStatus guidanceStatus, in Handle routeHandle\)](#)
- void [waypointReached \(in Boolean isDestination\)](#)
- void [maneuverChanged \(in ManeuverPhase maneuver\)](#)
- void [positionOnRouteChanged \(in UInt32 offsetOnRoute\)](#)
- void [vehicleLeftTheRoute \(\)](#)
- void [vehicleReturnedToTheRoute \(\)](#)
- void [positionToRouteChanged \(in UInt32 distance, in Int32 direction\)](#)
- void [activeRouteChanged \(in RouteChangedCause changeCause\)](#)

2.8.1 Member Function Documentation

2.8.1.1 activeRouteChanged()

```
void org::genivi::navigation::navigationcore::Guidance_client::activeRouteChanged (
    in RouteChangedCause changeCause )
```

broadcast #comment : activeRouteChanged = This signal is emitted when the active route changes

2.8.1.2 guidanceStatusChanged()

```
void org::genivi::navigation::navigationcore::Guidance_client::guidanceStatusChanged (
    in GuidanceStatus guidanceStatus,
    in Handle routeHandle )
```

broadcast #comment : guidanceStatusChanged = This signal is emitted when the guidance status changes

2.8.1.3 maneuverChanged()

```
void org::genivi::navigation::navigationcore::Guidance_client::maneuverChanged (
    in ManeuverPhase maneuver )
```

broadcast #comment : This signal is emitted each time a maneuver event is going

2.8.1.4 positionOnRouteChanged()

```
void org::genivi::navigation::navigationcore::Guidance_client::positionOnRouteChanged (
    in UInt32 offsetOnRoute )
```

broadcast #comment : positionOnRouteChanged = This signal is emitted when the position on the route changes

2.8.1.5 positionToRouteChanged()

```
void org::genivi::navigation::navigationcore::Guidance_client::positionToRouteChanged (
    in UInt32 distance,
    in Int32 direction )
```

broadcast #comment : positionToRouteChanged = This signal is emitted when the vehicle is off-the-road network and either the heading or the distance (or both) to the closest point on the active route changes

2.8.1.6 vehicleLeftTheRoadNetwork()

```
void org::genivi::navigation::navigationcore::Guidance_client::vehicleLeftTheRoadNetwork ( )
```

broadcast #comment : vehicleLeftTheRoadNetwork = This signal is emitted when the vehicle exits from the road network

2.8.1.7 vehicleLeftTheRoute()

```
void org::genivi::navigation::navigationcore::Guidance_client::vehicleLeftTheRoute ( )
```

broadcast #comment : vehicleLeftTheRoute = This signal is emitted when the vehicle has left the route

2.8.1.8 vehicleReturnedToTheRoadNetwork()

```
void org::genivi::navigation::navigationcore::Guidance_client::vehicleReturnedToTheRoadNetwork()
( )
```

broadcast #comment : vehicleReturnedToTheRoadNetwork = This signal is emitted when the vehicle returns to the road network

2.8.1.9 vehicleReturnedToTheRoute()

```
void org::genivi::navigation::navigationcore::Guidance_client::vehicleReturnedToTheRoute ( )
```

broadcast #comment : vehicleReturnedToTheRoute = This signal is emitted when the vehicle has returned to the route

2.8.1.10 waypointReached()

```
void org::genivi::navigation::navigationcore::Guidance_client::waypointReached (
    in Boolean isDestination )
```

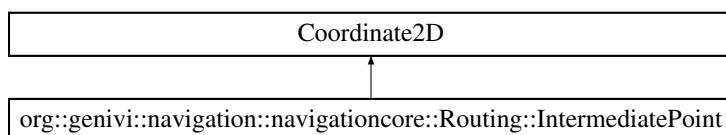
broadcast #comment : waypointReached = This signal is emitted when the destination is reached

The documentation for this interface was generated from the following file:

- [Guidance.fidl](#)

2.9 org::genivi::navigation::navigationcore::Routing::IntermediatePoint Struct Reference

Inheritance diagram for org::genivi::navigation::navigationcore::Routing::IntermediatePoint:



Public Attributes

- [WayPointType type](#)

2.9.1 Member Data Documentation

2.9.1.1 type

[WayPointType](#) `org::genivi::navigation::navigationcore::Routing::IntermediatePoint::type`

The documentation for this struct was generated from the following file:

- [Routing.fidl](#)

2.10 org::genivi::navigation::navigationcore::Guidance::LaneInfo Struct Reference

Public Attributes

- UInt32 laneIndex
- UInt32 laneDirections
- UInt32 directionToFollow
- LaneDivider divider

2.10.1 Member Data Documentation

2.10.1.1 directionToFollow

UInt32 org::genivi::navigation::navigationcore::Guidance::LaneInfo::directionToFollow

2.10.1.2 divider

LaneDivider org::genivi::navigation::navigationcore::Guidance::LaneInfo::divider

2.10.1.3 laneDirections

UInt32 org::genivi::navigation::navigationcore::Guidance::LaneInfo::laneDirections

2.10.1.4 laneIndex

UInt32 org::genivi::navigation::navigationcore::Guidance::LaneInfo::laneIndex

The documentation for this struct was generated from the following file:

- [Guidance.fidl](#)

2.11 org::genivi::navigation::navigationcore::LocationInput Interface Reference

Classes

- union [AddressValue](#)

Public Types

- enum `SearchStatus` : BasicEnum { `SEARCHING` = 193, `FINISHED` = 194 }
- enum `ValidationType` : BasicEnum { `OK` = 208, `UNKNOWN` = 209, `AMBIGUOUS` = 210, `INCONSISTENT` = 211 }
- enum `AddressAttribute` : GeoLocalizedEnum {
 `COUNTRY` = 166, `COUNTRYCODE` = 179, `STATE` = 167, `CITY` = 168,
 `STREET` = 170, `ROAD_NUMBER` = 182, `HOUSENUMBER` = 171, `HOUSENAME` = 180,
 `CROSSING` = 172, `DISTRICT` = 173, `PHONENUMBER` = 174, `POINAME` = 175,
 `TOWNCENTER` = 176, `LOCATION_INPUT` = 177, `FULL_ADDRESS` = 178, `POSTAL_CODE` = 181,
 `ROADSHIELDS` = 182, `BLOCK_NUMBER` = 0, `x0186`, `UNIT_NUMBER` = 0,
 `x0187`, `BEGIN_STREET` = 0, `x0188`, `ROAD_INTERSECTION` = 0,
 `x0189` }
- typedef `AddressAttribute` [] `AddressAttributeList`

Public Member Functions

- void `getVersion` (out Version version)
- void `createLocationInput` (in Handle sessionHandle, out LocationHandle locationInputHandle)
- void `deleteLocationInput` (in Handle sessionHandle, in LocationHandle locationInputHandle)
- void `getSupportedAddressAttributes` (out `AddressAttributeList` addressAttributesList)
- void `setAddress` (in Handle sessionHandle, in LocationHandle locationInputHandle, in Address address)
- void `setSelectionCriterion` (in Handle sessionHandle, in LocationHandle locationInputHandle, in `AddressAttribute` selectionCriterion)
- void `spell` (in Handle sessionHandle, in LocationHandle locationInputHandle, in String inputCharacter, in UInt16 maxWindowSize)
- void `search` (in Handle sessionHandle, in LocationHandle locationInputHandle, in String inputString, in UInt16 maxWindowSize)
- void `requestListUpdate` (in Handle sessionHandle, in LocationHandle locationInputHandle, in UInt16 offset, in UInt16 maxWindowSize)
- void `selectEntry` (in Handle sessionHandle, in LocationHandle locationInputHandle, in UInt16 index)
- void `getEntry` (in LocationHandle locationInputHandle, in UInt16 index, out Address address)
- void `validateAddress` (in Handle sessionHandle, in LocationHandle locationInputHandle, in Address inputAddress)
- void `reverseGeocode` (in Handle sessionHandle, in LocationHandle locationInputHandle, in Coordinate2D coordinate)

Public Attributes

- map_Address `AddressAttribute` => `AddressValue`
- map_ValidationStatus `AddressAttribute` => `ValidationType`

2.11.1 Detailed Description

#comment : `LocationInput` = This interface offers functions that implement the location-input functionality of a navigation system

2.11.2 Member Typedef Documentation

2.11.2.1 AddressAttributeList

```
typedef AddressAttribute [ ] org::genivi::navigation::navigationcore::LocationInput::AddressAttributeList
```

2.11.3 Member Enumeration Documentation

2.11.3.1 AddressAttribute

```
enum org::genivi::navigation::navigationcore::LocationInput::AddressAttribute : GeoLocalizedEnum
```

Enumerator

COUNTRY	
COUNTRYCODE	
STATE	
CITY	
STREET	
ROAD_NUMBER	
HOUSENUMBER	
HOUSENAME	
CROSSING	
DISTRICT	
PHONE NUMBER	
POINAME	
TOWNCENTER	
LOCATION_INPUT	
FULL_ADDRESS	
POSTAL_CODE	
ROADSHIELDS	
BLOCK_NUMBER	
x0186	
UNIT_NUMBER	
x0187	
BEGIN_STREET	
x0188	
ROAD_INTERSECTION	
x0189	

2.11.3.2 SearchStatus

```
enum org::genivi::navigation::navigationcore::LocationInput::SearchStatus : BasicEnum
```

Enumerator

SEARCHING	
FINISHED	

2.11.3.3 ValidationType

```
enum org::genivi::navigation::navigationcore::LocationInput::ValidationType : BasicEnum
```

Enumerator

OK	
UNKNOWN	
AMBIGUOUS	
INCONSISTENT	

2.11.4 Member Function Documentation

2.11.4.1 createLocationInput()

```
void org::genivi::navigation::navigationcore::LocationInput::createLocationInput (
    in Handle sessionHandle,
    out LocationHandle locationInputHandle )
```

#comment : createLocationInput = This method creates a new location input and retrieves a handle

2.11.4.2 deleteLocationInput()

```
void org::genivi::navigation::navigationcore::LocationInput::deleteLocationInput (
    in Handle sessionHandle,
    in LocationHandle locationInputHandle )
```

#comment : deleteLocationInput = This method deletes a location input and its associated resources

2.11.4.3 getEntry()

```
void org::genivi::navigation::navigationcore::LocationInput::getEntry (
    in LocationHandle locationInputHandle,
    in UInt16 index,
    out Address address )
```

#comment : getEntry = This method synchronously gets the address for the given result list entry

2.11.4.4 getSupportedAddressAttributes()

```
void org::genivi::navigation::navigationcore::LocationInput::getSupportedAddressAttributes (
    out AddressAttributeList addressAttributesList )
```

#comment : getSupportedAddressAttributes = This method retrieves the supported address attributes

2.11.4.5 getVersion()

```
void org::genivi::navigation::navigationcore::LocationInput::getVersion (
    out Version version )

#comment : getVersion = This method returns the API version implemented by the server application
```

2.11.4.6 requestListUpdate()

```
void org::genivi::navigation::navigationcore::LocationInput::requestListUpdate (
    in Handle sessionHandle,
    in LocationHandle locationInputHandle,
    in UInt16 offset,
    in UInt16 maxWindowSize )

#comment : requestListUpdate = This method sends a request for more list elements for the current session
```

2.11.4.7 reverseGeocode()

```
void org::genivi::navigation::navigationcore::LocationInput::reverseGeocode (
    in Handle sessionHandle,
    in LocationHandle locationInputHandle,
    in Coordinate2D coordinate )
```

#comment : reverseGeocode = This method transforms a geocoordinate into an address Note: the update of the input content will be notified in signal ContentUpdated

2.11.4.8 search()

```
void org::genivi::navigation::navigationcore::LocationInput::search (
    in Handle sessionHandle,
    in LocationHandle locationInputHandle,
    in String inputString,
    in UInt16 maxWindowSize )
```

#comment : search = This method sends the search input for the current session Note: when a search is started the entries of the spell input are removed

2.11.4.9 selectEntry()

```
void org::genivi::navigation::navigationcore::LocationInput::selectEntry (
    in Handle sessionHandle,
    in LocationHandle locationInputHandle,
    in UInt16 index )
```

#comment : selectEntry = This method triggers selection of a result list entry by index Note: the update of the input content will be notified in signal ContentUpdated

2.11.4.10 setAddress()

```
void org::genivi::navigation::navigationcore::LocationInput::setAddress (
    in Handle sessionHandle,
    in LocationHandle locationInputHandle,
    in Address address )
```

#comment : setAddress = This method sets the address to start with for the [LocationInput](#) identified by the given handle

2.11.4.11 `setSelectionCriterion()`

```
void org::genivi::navigation::navigationcore::LocationInput::setSelectionCriterion (
    in Handle sessionHandle,
    in LocationHandle locationInputHandle,
    in AddressAttribute selectionCriterion )
```

#comment : setSelectionCriterion = This method sets the selection criterion for the current speller, search input and the corresponding result-lists for the current session

2.11.4.12 `spell()`

```
void org::genivi::navigation::navigationcore::LocationInput::spell (
    in Handle sessionHandle,
    in LocationHandle locationInputHandle,
    in String inputCharacter,
    in UInt16 maxWindowSize )
```

#comment : spell = This method sends the next spell input for the current session Note: when a spell is started the entries of the search are removed

2.11.4.13 `validateAddress()`

```
void org::genivi::navigation::navigationcore::LocationInput::validateAddress (
    in Handle sessionHandle,
    in LocationHandle locationInputHandle,
    in Address inputAddress )
```

#comment : validateAddress = This method validates an address from different sources than Navigation

2.11.5 Member Data Documentation

2.11.5.1 `AddressAttribute` [1/2]

```
map_Address org::genivi::navigation::navigationcore::LocationInput::AddressAttribute =>Address<Value
```

2.11.5.2 `AddressAttribute` [2/2]

```
map_ValidationStatus org::genivi::navigation::navigationcore::LocationInput::AddressAttribute =>ValidationType
```

The documentation for this interface was generated from the following file:

- [LocationInput.fidl](#)

2.12 org::genivi::navigation::navigationcore::LocationInput_client Interface Reference

Public Member Functions

- void [currentSelectionCriterion](#) (in LocationHandle locationInputHandle, in AddressAttribute selectionCriterion)
- void [searchStatus](#) (in LocationHandle locationInputHandle, in SearchStatus statusValue)
- void [spellResult](#) (in LocationHandle locationInputHandle, in String uniqueString, in String validCharacters, in Boolean fullMatch)
- void [searchResultList](#) (in LocationHandle locationInputHandle, in UInt16 totalSize, in UInt16 windowOffset, in UInt16 windowHeight, in Address resultListWindow)
- void [searchResultListSizeChanged](#) (in LocationHandle locationInputHandle, in UInt16 totalSize)
- void [contentUpdated](#) (in LocationHandle locationInputHandle, in Boolean guidable, in AddressAttribute availableSelectionCriteria, in Address address)
- void [addressValidationResult](#) (in LocationHandle locationInputHandle, in Address validatedAddressList, in ValidationStatus validationStatusList)

2.12.1 Member Function Documentation

2.12.1.1 [addressValidationResult\(\)](#)

```
void org::genivi::navigation::navigationcore::LocationInput_client::addressValidationResult (
    in LocationHandle locationInputHandle,
    in Address validatedAddressList,
    in ValidationStatus validationStatusList )
```

broadcast #comment : addressValidationResult = This signal notifies the validation result of a former Validate←Address call

2.12.1.2 [contentUpdated\(\)](#)

```
void org::genivi::navigation::navigationcore::LocationInput_client::contentUpdated (
    in LocationHandle locationInputHandle,
    in Boolean guidable,
    in AddressAttribute availableSelectionCriteria,
    in Address address )
```

broadcast #comment : contentUpdated = This signal updates the input content data for the specified session

2.12.1.3 [currentSelectionCriterion\(\)](#)

```
void org::genivi::navigation::navigationcore::LocationInput_client::currentSelectionCriterion (
    in LocationHandle locationInputHandle,
    in AddressAttribute selectionCriterion )
```

broadcast #comment : currentSelectionCriterion = This signal notifies the SelectionCriterion for the current speller input or search.

2.12.1.4 searchResultList()

```
void org::genivi::navigation::navigationcore::LocationInput_client::searchResultList (
    in LocationHandle locationInputHandle,
    in UInt16 totalSize,
    in UInt16 windowOffset,
    in UInt16 windowHeight,
    in Address resultListWindow )
```

broadcast #comment : searchResultList = This signal updates the address result list (e.g. after a Search/Spell/Scroll call)

2.12.1.5 searchResultListSizeChanged()

```
void org::genivi::navigation::navigationcore::LocationInput_client::searchResultListSizeChanged (
    in LocationHandle locationInputHandle,
    in UInt16 totalSize )
```

broadcast #comment : searchResultListSizeChanged = This signal updates the size of the address result list

2.12.1.6 searchStatus()

```
void org::genivi::navigation::navigationcore::LocationInput_client::searchStatus (
    in LocationHandle locationInputHandle,
    in SearchStatus statusValue )
```

broadcast #comment : searchStatus = This signal updates the search status of the specified session

2.12.1.7 spellResult()

```
void org::genivi::navigation::navigationcore::LocationInput_client::spellResult (
    in LocationHandle locationInputHandle,
    in String uniqueString,
    in String validCharacters,
    in Boolean fullMatch )
```

broadcast #comment : spellResult = This signal notifies the result of the previous Spell method

The documentation for this interface was generated from the following file:

- [LocationInput.fidl](#)

2.13 org::genivi::navigation::navigationcore::Guidance::Maneuver Struct Reference

Public Attributes

- RoadShield [] [roadShieldsAfterManeuver](#)
- String [countryCodeAfterManeuver](#)
- String [stateCodeAfterManeuver](#)
- String [roadNumberAfterManeuver](#)
- String [roadNameAfterManeuver](#)
- [RoadProperty roadPropertyAfterManeuver](#)
- [Side drivingSide](#)
- UInt32 [offsetOfNextManeuver](#)
- ManeuverItem [] [items](#)

2.13.1 Member Data Documentation

2.13.1.1 countryCodeAfterManeuver

```
String org::genivi::navigation::navigationcore::Guidance::Maneuver::countryCodeAfterManeuver
```

2.13.1.2 drivingSide

```
Side org::genivi::navigation::navigationcore::Guidance::Maneuver::drivingSide
```

2.13.1.3 items

```
ManeuverItem [ ] org::genivi::navigation::navigationcore::Guidance::Maneuver::items
```

2.13.1.4 offsetOfNextManeuver

```
UInt32 org::genivi::navigation::navigationcore::Guidance::Maneuver::offsetOfNextManeuver
```

2.13.1.5 roadNameAfterManeuver

```
String org::genivi::navigation::navigationcore::Guidance::Maneuver::roadNameAfterManeuver
```

2.13.1.6 roadNumberAfterManeuver

```
String org::genivi::navigation::navigationcore::Guidance::Maneuver::roadNumberAfterManeuver
```

2.13.1.7 roadPropertyAfterManeuver

```
RoadProperty org::genivi::navigation::navigationcore::Guidance::Maneuver::roadPropertyAfter←  
Maneuver
```

2.13.1.8 roadShieldsAfterManeuver

```
RoadShield [ ] org::genivi::navigation::navigationcore::Guidance::Maneuver::roadShieldsAfter←  
Maneuver
```

2.13.1.9 stateCodeAfterManeuver

```
String org::genivi::navigation::navigationcore::Guidance::Maneuver::stateCodeAfterManeuver
```

The documentation for this struct was generated from the following file:

- [Guidance.fidl](#)

2.14 org::genivi::navigation::navigationcore::Guidance::ManeuverDataValue Union Reference

Public Attributes

- [ManeuverDirection enumValue](#)
- [UInt16 uint16Value](#)
- [String stringValue](#)
- [RoadForm roadFormValue](#)
- [LaneInfo \[\] laneInfoValue](#)
- [Coordinate3D coordinate3DValue](#)

2.14.1 Member Data Documentation

2.14.1.1 coordinate3DValue

```
Coordinate3D org::genivi::navigation::navigationcore::Guidance::ManeuverDataValue::coordinate3DValue
```

2.14.1.2 enumValue

```
ManeuverDirection org::genivi::navigation::navigationcore::Guidance::ManeuverDataValue::enumValue
```

2.14.1.3 laneInfoValue

```
LaneInfo [] org::genivi::navigation::navigationcore::Guidance::ManeuverDataValue::laneInfoValue
```

2.14.1.4 roadFormValue

```
RoadForm org::genivi::navigation::navigationcore::Guidance::ManeuverDataValue::roadFormValue
```

2.14.1.5 stringValue

```
String org::genivi::navigation::navigationcore::Guidance::ManeuverDataValue::stringValue
```

2.14.1.6 uint16Value

```
UInt16 org::genivi::navigation::navigationcore::Guidance::ManeuverDataValue::uint16Value
```

The documentation for this union was generated from the following file:

- [Guidance.fidl](#)

2.15 org::genivi::navigation::navigationcore::Guidance::ManeuverItem Struct Reference

Public Attributes

- UInt32 [offsetOfManeuver](#)
- UInt32 [travelTime](#)
- [ManeuverDirectionType direction](#)
- [ManeuverType maneuver](#)
- [ManeuverData maneuverData](#)

2.15.1 Member Data Documentation

2.15.1.1 direction

```
ManeuverDirectionType org::genivi::navigation::navigationcore::Guidance::ManeuverItem::direction
```

2.15.1.2 maneuver

```
ManeuverType org::genivi::navigation::navigationcore::Guidance::ManeuverItem::maneuver
```

2.15.1.3 maneuverData

```
ManeuverData org::genivi::navigation::navigationcore::Guidance::ManeuverItem::maneuverData
```

2.15.1.4 offsetOfManeuver

```
UInt32 org::genivi::navigation::navigationcore::Guidance::ManeuverItem::offsetOfManeuver
```

2.15.1.5 travelTime

```
UInt32 org::genivi::navigation::navigationcore::Guidance::ManeuverItem::travelTime
```

The documentation for this struct was generated from the following file:

- [Guidance.fidl](#)

2.16 org::genivi::navigation::navigationcore::MapMatchedPosition Interface Reference

Classes

- union [AddressItemValue](#)
- union [PositionItemValue](#)
- union [PositionOnSegmentValue](#)
- union [PositionStatusValue](#)

Public Types

- enum [PositionItemKey](#) : PositionStatus { **HEADING** = 163, **SPEED** = 164, **CLIMB** = 165 }
- enum [AddressItemKey](#) : TimeStampedEnum {
 TIMEZONE_OFFSET = 17, **DAYLIGHT_OFFSET** = 18, **COUNTRY** = 166, **STATE** = 167,
 CITY = 168, **STREET** = 170, **HOUSENUMBER** = 171, **CROSSING** = 172,
 DISTRICT = 173, **PHONENUMBER** = 174, **POINAME** = 175, **TOWNCENTER** = 176,
 LOCATION_INPUT = 177, **FULL_ADDRESS** = 178, **COUNTRYCODE** = 179, **HOUSENAME** = 180,
 POSTAL_CODE = 181, **ROAD_NUMBER** = 334, **MATCH_TYPE** = 240, **ROADSHIELDS** = 182 }
- enum [PositionStatus](#) : GeoLocalizedEnum { **GNSS_FIX_STATUS** = 224, **DR_STATUS** = 225, **MM_STATUS** = 226, **SIMULATION_MODE** = 227 }
- enum [MatchMode](#) {
 MATCH_TYPE = 240, **ON_ROAD** = 241, **OFF_ROAD** = 242, **ON_FERRY** = 243,
 IN_TUNNEL = 244, **ON_CARPARK** = 245 }
- enum [GnnsFixStatus](#) : BasicEnum { **NO_FIX** = 256, **TIME_FIX** = 257, **FIX_2D** = 258, **FIX_3D** = 259 }
- enum [PositionOnSegmentKey](#) : TimeStampedEnum { **SEGMENT_ID** = 272, **DIRECTION_ON_SEGMENT** = 274, **DISTANCE_ON_SEGMENT** = 275 }
- enum [SimulationStatus](#) : BasicEnum { **SIMULATION_STATUS_NO_SIMULATION** = 544, **SIMULATION_STATUS_RUNNING** = 545, **SIMULATION_STATUS_PAUSED** = 546, **SIMULATION_STATUS_FIXED_POSITION** = 547 }

Public Member Functions

- void [getVersion](#) (out Version version)
- void [setSimulationMode](#) (in Handle sessionHandle, in Boolean activate)
- void [getSimulationStatus](#) (out [SimulationStatus](#) simulationStatus)
- void [setSimulationSpeed](#) (in Handle sessionHandle, in UInt8 speedFactor)
- void [getSimulationSpeed](#) (out UInt8 speedFactor)
- void [startSimulation](#) (in Handle sessionHandle)
- void [pauseSimulation](#) (in Handle sessionHandle)
- void [getPosition](#) (in [PositionItemKey](#) valuesToReturn, out PositionItemDict position)
- void [setPosition](#) (in Handle sessionHandle, in PositionItemDict position)
- void [getCurrentAddress](#) (in [AddressItemKey](#) valuesToReturn, out AddressItemDict address)
- void [getPositionOnSegment](#) (in [PositionOnSegmentKey](#) valuesToReturn, out PositionOnSegmentDict positionOnSegment)
- void [getStatus](#) (in [PositionStatus](#) valuesToReturn, out PositionStatusDict status)

Public Attributes

- map_PositionItemDict `PositionItemKey => PositionItemValue`
- map_AddressItemDict `AddressItemKey => AddressItemValue`
- map_PositionOnSegmentDict `PositionOnSegmentKey => PositionOnSegmentValue`
- map_PositionStatusDict `PositionStatus => PositionStatusValue`

2.16.1 Detailed Description

#comment : `MapMatchedPosition` = This interface offers functions to retrieve the map matched position and to simulate positioning. If NavigationCore is not in Simulation Mode (Simulation Status is `SIMULATION_STATUS_NO_SIMULATION`), it is using the EnhancedPosition from the Positioning component. In Simulation Mode it is not using this position, instead it uses FixedPosition or FollowActiveRoute to determine the position. With FixedPosition (Simulation Status is `SIMULATION_STATUS_FIXED_POSITION`), the position is fixed, unless it is changed by a call to `setPosition()`. This supports use cases like: setting the current car position in a demo mode, or replay a position log file (where `setPosition()` is called for each logged location). In Follow Active Route mode, NavigationCore is generating positions itself. These positions follow the current active route. When the end of the route is reached, the position jumps back to the starting point of the route. There are two sub states: Running (Simulation Status is `SIMULATION_STATUS_RUNNING`) and Paused (Simulation Status is `SIMULATION_STATUS_PAUSED`). By default the 'driving speed' will be equal to the free flow speed of each road segment. However a speed factor can be set via the method `SetSimulationSpeed`.

2.16.2 Member Enumeration Documentation

2.16.2.1 AddressItemKey

```
enum org::genivi::navigation::navigationcore::MapMatchedPosition::AddressItemKey : TimeStampedException
```

Enumerator

TIMEZONE_OFFSET
DAYLIGHT_OFFSET
COUNTRY
STATE
CITY
STREET
HOUSENUMBER
CROSSING
DISTRICT
PHONENUMBER
POINAME
TOWNCENTER
LOCATION_INPUT
FULL_ADDRESS
COUNTRYCODE
HOUSENAME
POSTAL_CODE
ROAD_NUMBER
MATCH_TYPE
ROADSHIELDS

2.16.2.2 GnnsFixStatus

```
enum org::genivi::navigation::navigationcore::MapMatchedPosition::GnnsFixStatus : BasicEnum
```

Enumerator

NO_FIX	
TIME_FIX	
FIX_2D	
FIX_3D	

2.16.2.3 MatchMode

```
enum org::genivi::navigation::navigationcore::MapMatchedPosition::MatchMode
```

Enumerator

MATCH_TYPE	
ON_ROAD	
OFF_ROAD	
ON_FERRY	
IN_TUNNEL	
ON_CARPARK	

2.16.2.4 PositionItemKey

```
enum org::genivi::navigation::navigationcore::MapMatchedPosition::PositionItemKey : PositionStatus
```

Enumerator

HEADING	
SPEED	
CLIMB	

2.16.2.5 PositionOnSegmentKey

```
enum org::genivi::navigation::navigationcore::MapMatchedPosition::PositionOnSegmentKey : TimeStampedEnum
```

Enumerator

SEGMENT_ID	
DIRECTION_ON_SEGMENT	
DISTANCE_ON_SEGMENT	

2.16.2.6 PositionStatus

```
enum org::genivi::navigation::navigationcore::MapMatchedPosition::PositionStatus : Geo↔
LocalizedEnum
```

Enumerator

GNSS_FIX_STATUS	
DR_STATUS	
MM_STATUS	
SIMULATION_MODE	

2.16.2.7 SimulationStatus

```
enum org::genivi::navigation::navigationcore::MapMatchedPosition::SimulationStatus : Basic↔
Enum
```

Enumerator

SIMULATION_STATUS_NO_SIMULATION	
SIMULATION_STATUS_RUNNING	
SIMULATION_STATUS_PAUSED	
SIMULATION_STATUS_FIXED_POSITION	

2.16.3 Member Function Documentation**2.16.3.1 getCurrentAddress()**

```
void org::genivi::navigation::navigationcore::MapMatchedPosition::getCurrentAddress (
    in AddressItemKey valuesToReturn,
    out AddressItemDict address )
```

#comment : getCurrentAddress = This method returns the current address

2.16.3.2 getPosition()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition::getPosition (
    in PositionItemKey valuesToReturn,
    out PositionItemDict position )
```

#comment : getPosition = This method returns the current position

2.16.3.3 getPositionOnSegment()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition::getPositionOnSegment (
    in PositionOnSegmentKey valuesToReturn,
    out PositionOnSegmentDict positionOnSegment )
```

#comment : positionOnSegment = This method returns the vehicle position on a route segment

2.16.3.4 getSimulationSpeed()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition::getSimulationSpeed (
    out UInt8 speedFactor )
```

#comment : getSimulationSpeed = returns the speed factor for the simulation mode

2.16.3.5 getSimulationStatus()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition::getSimulationStatus (
    out SimulationStatus simulationStatus )
```

#comment : getSimulationStatus = This method retrieves the simulation status

2.16.3.6 getStatus()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition::getStatus (
    in PositionStatus valuesToReturn,
    out PositionStatusDict status )
```

#comment : getStatus = This method returns the current status

2.16.3.7 getVersion()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition::getVersion (
    out Version version )
```

#comment : getVersion = This method returns the API version implemented by the server application

2.16.3.8 pauseSimulation()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition::pauseSimulation (
    in Handle sessionHandle )
```

#comment : pauseSimulation = This method freezes the current location

2.16.3.9 setPosition()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition::setPosition (
    in Handle sessionHandle,
    in PositionItemDict position )
```

#comment : setPosition = This method sets the position to a specific location Independent of the current Simulation Status, the new status will be SIMULATION_STATUS_FIXED_POSITION. This method can be used to replay a position log file (with positions obtained via calls to GetPosition()) by calling this method for each position in the log file. It is of course also possible to call this method just once with e.g. a 'current location' entered by the user (via the HMI).

2.16.3.10 setSimulationMode()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition::setSimulationMode (
    in Handle sessionHandle,
    in Boolean activate )
```

#comment : setSimulationMode = This method activates or deactivates the simulation mode

2.16.3.11 setSimulationSpeed()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition::setSimulationSpeed (
    in Handle sessionHandle,
    in UInt8 speedFactor )
```

2.16.3.12 startSimulation()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition::startSimulation (
    in Handle sessionHandle )
```

#comment : startSimulation = This method starts, or resumes, a Follow Active Route simulation If the current Simulation Status is SIMULATION_STATUS_PAUSED, the simulation is resumed from the current location. Otherwise the simulation is started from the starting point of the route. In both cases the new status will be SIMULATION_STATUS_RUNNING

2.16.4 Member Data Documentation

2.16.4.1 AddressItemKey

```
map_AddressItemDict org::genivi::navigation::navigationcore::MapMatchedPosition::AddressItemKey =>AddressItemValue
```

2.16.4.2 PositionItemKey

```
map_PositionItemDict org::genivi::navigation::navigationcore::MapMatchedPosition::PositionItemKey =>PositionItemValue
```

2.16.4.3 PositionOnSegmentKey

```
map_PositionOnSegmentDict org::genivi::navigation::navigationcore::MapMatchedPosition::PositionOnSegmentKey =>PositionOnSegmentValue
```

2.16.4.4 PositionStatus

```
map_PositionStatusDict org::genivi::navigation::navigationcore::MapMatchedPosition::Position←
Status =>PositionStatusValue
```

The documentation for this interface was generated from the following file:

- [MapMatchedPosition.fidl](#)

2.17 org::genivi::navigation::navigationcore::MapMatchedPosition_client Interface Reference

Public Member Functions

- void [simulationStatusChanged](#) (in SimulationStatus simulationStatus)
- void [simulationSpeedChanged](#) (in UInt8 speedFactor)
- void [positionUpdate](#) (in PositionItemKey changedValues)
- void [addressUpdate](#) (in AddressItemKey changedValues)
- void [positionOnSegmentUpdate](#) (in PositionOnSegmentKey changedValues)
- void [statusUpdate](#) (in PositionStatus changedValues)
- void [offRoadPositionChanged](#) (in UInt32 distance, in Int32 direction)

2.17.1 Member Function Documentation

2.17.1.1 addressUpdate()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition_client::addressUpdate (
    in AddressItemKey changedValues )
```

broadcast #comment : addressUpdate = This signal is called to notify a client application that the current address changed

2.17.1.2 offRoadPositionChanged()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition_client::offRoadPosition←
Changed (
    in UInt32 distance,
    in Int32 direction )
```

broadcast #comment : offroadPositionChanged = This signal is emitted when the heading and the distance to the closest point on the road network changes

2.17.1.3 positionOnSegmentUpdate()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition_client::positionOnSegment←
Update (
    in PositionOnSegmentKey changedValues )
```

broadcast #comment : positionOnSegmentUpdate = This signal is called to notify the client that the vehicle position on the route segment changed

2.17.1.4 positionUpdate()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition_client::positionUpdate (
    in PositionItemKey changedValues )
```

broadcast #comment : positionUpdate = This signal is called to notify a client application of a position change. The update frequency is implementation specific. The maximal allowed frequency is 10Hz

2.17.1.5 simulationSpeedChanged()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition_client::simulationSpeedChanged (
    in UInt8 speedFactor )
```

broadcast #comment : simulationSpeedChanged = This signal is emitted when the simulation speed factor has changed NavigationCore will only send out a SimulationSpeedChanged signal if there is at least one node listening to these changes

2.17.1.6 simulationStatusChanged()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition_client::simulationStatusChanged (
    in SimulationStatus simulationStatus )
```

broadcast #comment : simulationStatusChanged = This signal is emitted when the Simulation Status has changed

2.17.1.7 statusUpdate()

```
void org::genivi::navigation::navigationcore::MapMatchedPosition_client::statusUpdate (
    in PositionStatus changedValues )
```

broadcast #comment : statusUpdate = This signal is emitted to notify a client application that the current status changed

The documentation for this interface was generated from the following file:

- [MapMatchedPosition.fidl](#)

2.18 org::genivi::navigation::navigationcore::NavigationCoreTypes Interface Reference

Classes

- struct [RoadShield](#)
- struct [RoadShieldAffix](#)

Public Types

- enum [TimeStampedEnum](#) : BasicEnum { **TIMESTAMP** = 16 }
- enum [GeoLocalizedEnum](#) : TimeStampedEnum { **LATITUDE** = 160, **LONGITUDE** = 161, **ALTITUDE** = 162 }
- enum [RoadShieldAffixType](#) {
 NONE = 700, **NORTH** = 701, **EAST** = 702, **SOUTH** = 703,
 WEST = 704, **ALTERNATE** = 705, **BYPASS** = 706, **BUSINESS_LOOP** = 707,
 BUSINESS_ROUTE = 708, **BUSINESS_SPUR** = 709, **EXTENDED** = 710, **COLLECTOR** = 711,
 EXPRESS = 712 }

2.18.1 Member Enumeration Documentation

2.18.1.1 GeoLocalizedEnum

```
enum org::genivi::navigation::navigationcore::NavigationCoreTypes::GeoLocalizedEnum : Time←  
StampedEnum
```

Enumerator

LATITUDE	<input type="checkbox"/>
LONGITUDE	<input type="checkbox"/>
ALTITUDE	<input type="checkbox"/>

2.18.1.2 RoadShieldAffixType

```
enum org::genivi::navigation::navigationcore::NavigationCoreTypes::RoadShieldAffixType
```

Enumerator

NONE	<input type="checkbox"/>
NORTH	<input type="checkbox"/>
EAST	<input type="checkbox"/>
SOUTH	<input type="checkbox"/>
WEST	<input type="checkbox"/>
ALTERNATE	<input type="checkbox"/>
BYPASS	<input type="checkbox"/>
BUSINESS_LOOP	<input type="checkbox"/>
BUSINESS_ROUTE	<input type="checkbox"/>
BUSINESS_SPUR	<input type="checkbox"/>
EXTENDED	<input type="checkbox"/>
COLLECTOR	<input type="checkbox"/>
EXPRESS	<input type="checkbox"/>

2.18.1.3 TimeStampedEnum

```
enum org::genivi::navigation::navigationcore::NavigationCoreTypes::TimeStampedEnum : Basic<→
Enum
```

Enumerator

TIMESTAMP	<input type="checkbox"/>
-----------	--------------------------

The documentation for this interface was generated from the following file:

- [NavigationCoreTypes.fidl](#)

2.19 org::genivi::navigation::navigationcore::MapMatchedPosition::PositionItemValue Union Reference**Public Attributes**

- Timestamp [timestamp](#)
- Boolean [status](#)
- [GnnsFixStatus](#) [fix](#)
- Double [doubleValue](#)
- Int32 [intValue](#)

2.19.1 Member Data Documentation

2.19.1.1 doubleValue

```
Double org::genivi::navigation::navigationcore::MapMatchedPosition::PositionItemValue::doubleValue
```

2.19.1.2 fix

```
GnnsFixStatus org::genivi::navigation::navigationcore::MapMatchedPosition::PositionItemValue::fix
```

2.19.1.3 intValue

```
Int32 org::genivi::navigation::navigationcore::MapMatchedPosition::PositionItemValue::intValue
```

2.19.1.4 status

```
Boolean org::genivi::navigation::navigationcore::MapMatchedPosition::PositionItemValue::status
```

2.19.1.5 timestamp

```
Timestamp org::genivi::navigation::navigationcore::MapMatchedPosition::PositionItemValue::timestamp
```

The documentation for this union was generated from the following file:

- [MapMatchedPosition.fidl](#)

2.20 org::genivi::navigation::navigationcore::MapMatchedPosition::PositionOnSegmentValue Union Reference

Public Attributes

- Boolean [directionOnSegment](#)
- Double [distanceOnSegment](#)
- ByteBuffer [segment](#)
- Timestamp [timestamp](#)

2.20.1 Member Data Documentation

2.20.1.1 directionOnSegment

```
Boolean org::genivi::navigation::navigationcore::MapMatchedPosition::PositionOnSegmentValue<-->
::directionOnSegment
```

2.20.1.2 distanceOnSegment

```
Double org::genivi::navigation::navigationcore::MapMatchedPosition::PositionOnSegmentValue<-->
::distanceOnSegment
```

2.20.1.3 segment

```
ByteBuffer org::genivi::navigation::navigationcore::MapMatchedPosition::PositionOnSegment<-->
Value::segment
```

2.20.1.4 timestamp

```
Timestamp org::genivi::navigation::navigationcore::MapMatchedPosition::PositionOnSegment<-->
Value::timestamp
```

The documentation for this union was generated from the following file:

- [MapMatchedPosition.fidl](#)

2.21 org::genivi::navigation::navigationcore::MapMatchedPosition::PositionStatusValue Union Reference

Public Attributes

- Boolean [statusValue](#)
- [GnnsFixStatus](#) [fixStatus](#)
- Timestamp [timestamp](#)

2.21.1 Member Data Documentation

2.21.1.1 fixStatus

```
GnnsFixStatus org::genivi::navigation::navigationcore::MapMatchedPosition::PositionStatus<-->
Value::fixStatus
```

2.21.1.2 statusValue

```
Boolean org::genivi::navigation::navigationcore::MapMatchedPosition::PositionStatusValue<-
::statusValue
```

2.21.1.3 timestamp

```
Timestamp org::genivi::navigation::navigationcore::MapMatchedPosition::PositionStatusValue<-
::timestamp
```

The documentation for this union was generated from the following file:

- [MapMatchedPosition.fidl](#)

2.22 org::genivi::navigation::navigationcore::Routing::RoadPreference Struct Reference

Public Attributes

- [PreferenceMode mode](#)
- [RoutePreferenceSource source](#)

2.22.1 Member Data Documentation

2.22.1.1 mode

```
PreferenceMode org::genivi::navigation::navigationcore::Routing::RoadPreference::mode
```

2.22.1.2 source

```
RoutePreferenceSource org::genivi::navigation::navigationcore::Routing::RoadPreference::source
```

The documentation for this struct was generated from the following file:

- [Routing.fidl](#)

2.23 org::genivi::navigation::navigationcore::NavigationCoreTypes::RoadShield Struct Reference

Public Attributes

- String [roadNumber](#)
- [RoadShieldAffix \[\] affxes](#)
- String [iconSetId](#)

2.23.1 Member Data Documentation

2.23.1.1 affixes

```
RoadShieldAffix [ ] org::genivi::navigation::navigationcore::NavigationCoreTypes::RoadShield<-->::affixes
```

2.23.1.2 iconSetId

```
String org::genivi::navigation::navigationcore::NavigationCoreTypes::RoadShield::iconSetId
```

2.23.1.3 roadNumber

```
String org::genivi::navigation::navigationcore::NavigationCoreTypes::RoadShield::roadNumber
```

The documentation for this struct was generated from the following file:

- [NavigationCoreTypes.fidl](#)

2.24 org::genivi::navigation::navigationcore::NavigationCoreTypes::RoadShieldAffix Struct Reference

Public Attributes

- [RoadShieldAffixType affixType](#)
- [String affixContent](#)

2.24.1 Member Data Documentation

2.24.1.1 affixContent

```
String org::genivi::navigation::navigationcore::NavigationCoreTypes::RoadShieldAffix::affix<-->Content
```

2.24.1.2 affixType

```
RoadShieldAffixType org::genivi::navigation::navigationcore::NavigationCoreTypes::RoadShield<-->Affix::affixType
```

The documentation for this struct was generated from the following file:

- [NavigationCoreTypes.fidl](#)

2.25 org::genivi::navigation::navigationcore::Routing::RouteOverviewItem Union Reference

Public Attributes

- UInt32 [uValue](#)

2.25.1 Member Data Documentation

2.25.1.1 [uValue](#)

UInt32 `org::genivi::navigation::navigationcore::Routing::RouteOverviewItem::uValue`

The documentation for this union was generated from the following file:

- [Routing.fidl](#)

2.26 org::genivi::navigation::navigationcore::Routing::RouteSegmentItem Union Reference

Public Attributes

- Double [doubleValue](#)
- [IntermediatePoint \[\] intermediatePoints](#)
- String [stringValue](#)
- UInt8 [] [linkId](#)
- Int32 [int32Value](#)
- Int16 [int16Value](#)
- UInt32 [uint32Value](#)
- UInt16 [uint16Value](#)

2.26.1 Member Data Documentation

2.26.1.1 [doubleValue](#)

Double `org::genivi::navigation::navigationcore::Routing::RouteSegmentItem::doubleValue`

2.26.1.2 [int16Value](#)

Int16 `org::genivi::navigation::navigationcore::Routing::RouteSegmentItem::int16Value`

2.26.1.3 int32Value

```
Int32 org::genivi::navigation::navigationcore::Routing::RouteSegmentItem::int32Value
```

2.26.1.4 intermediatePoints

```
IntermediatePoint [ ] org::genivi::navigation::navigationcore::Routing::RouteSegmentItem::intermediatePoints
```

2.26.1.5 linkId

```
UInt8 [ ] org::genivi::navigation::navigationcore::Routing::RouteSegmentItem::linkId
```

2.26.1.6 stringValue

```
String org::genivi::navigation::navigationcore::Routing::RouteSegmentItem::stringValue
```

2.26.1.7 uint16Value

```
UInt16 org::genivi::navigation::navigationcore::Routing::RouteSegmentItem::uint16Value
```

2.26.1.8 uint32Value

```
UInt32 org::genivi::navigation::navigationcore::Routing::RouteSegmentItem::uint32Value
```

The documentation for this union was generated from the following file:

- [Routing.fidl](#)

2.27 org::genivi::navigation::navigationcore::Routing Interface Reference

Classes

- struct [BlockedRouteElement](#)
- struct [ConditionPreference](#)
- struct [IntermediatePoint](#)
- struct [RoadPreference](#)
- union [RouteOverviewItem](#)
- union [RouteSegmentItem](#)
- union [WayPointItem](#)

Public Types

- enum `CalculationStatus` : BasicEnum { `CALCULATION_OK` = 304, `NO_POSITION` = 305 }
- enum `CalculationError` : BasicEnum { `UNMATCHED_POSITION` = 306, `UNREACHABLE_DESTINATION` = 307, `UNFULFILLED_PREFERENCE_MODE` = 308 }
- enum `CostModel` : BasicEnum {
 `FAIREST` = 352, `SHORTEST` = 353, `ECOLOGICAL` = 354, `SCENIC` = 355,
 `EASY` = 356, `OFF_ROAD` = 357, `BALANCED` = 358, `CHEAPEST` = 359 }
- enum `RoutePreferenceSource` : BasicEnum {
 `FERRY` = 368, `TOLL_ROADS` = 369, `TUNNELS` = 370, `HIGHWAYS_MOTORWAYS` = 371,
 `VEHICLE_SIZE_LIMIT` = 372, `CRIME_AREAS` = 373 }
- enum `TransportationMeans` : BasicEnum {
 `BY_CAR` = 384, `ON_FOOT` = 385, `LONG_RANGE_TRAINS` = 386, `PUBLIC_TRANSPORTATION` = 387,
 `BY_BICYCLE` = 388, `BY_TRUCK` = 389 }
- enum `Schedule` : BasicEnum { `ARRIVAL_TIME` = 394, `ARRIVAL_DATE` = 395, `DEPARTURE_TIME` = 396,
 `DEPARTURE_DATE` = 397 }
- enum `PreferenceMode` : BasicEnum {
 `PROHIBIT` = 400, `AVOID` = 401, `USE` = 402, `PREFER` = 403,
 `IGNORE` = 404 }
- enum `ConditionPreferenceSource` : BasicEnum { `TRAFFIC_REALTIME` = 512 }
- enum `TimeStampedEnum` : BasicEnum { `TIMESTAMP` = 16 }
- enum `GeoLocalizedEnum` : TimeStampedEnum { `LATITUDE` = 160, `LONGITUDE` = 161, `ALTITUDE` = 162 }
- enum `WayPointType` { `HARD_POINT` = 290, `SOFT_POINT` = 291 }
- enum `RouteOverviewType` : Schedule { `TOTAL_TIME` = 398, `TOTAL_DISTANCE` = 399 }
- enum `WaypointElementType` {
 `LATITUDE` = 160, `LONGITUDE` = 161, `ALTITUDE` = 162, `LOCATION_INPUT` = 177,
 `WAYPOINT_TYPE` = 289 }
- enum `RouteSegmentType` : BasicEnum {
 `LINK_ID` = 320, `START_LATITUDE` = 321, `END_LATITUDE` = 322, `START_LONGITUDE` = 323,
 `END_LONGITUDE` = 324, `START_ALTITUDE` = 325, `END_ALTITUDE` = 326, `ROAD_NAME` = 327,
 `DISTANCE` = 328, `TIME` = 329, `MANEUVER` = 330, `INSTRUCTION` = 331,
 `BORDER_CROSSING` = 332, `ADDITIONAL_INFORMATION` = 333, `ROAD_NUMBER` = 334, `START_OF_FSET` = 335,
 `INTERMEDIATE_POINTS` = 288, `HIGHWAY_EXIT` = 116, `SPEED` = 164, `TIME_ZONE`,
 `DAYLIGHT_SAVING_TIME` }

Public Member Functions

- void `getVersion` (out Version version)
- void `createRoute` (in Handle sessionHandle, out Handle routeHandle)
- void `deleteRoute` (in Handle sessionHandle, in Handle routeHandle)
- void `setCostModel` (in Handle sessionHandle, in Handle routeHandle, in `CostModel` costModel)
- void `getCostModel` (in Handle routeHandle, out `CostModel` costModel)
- void `getSupportedCostModels` (out `CostModel` costModelsList)
- void `setRoutePreferences` (in Handle sessionHandle, in Handle routeHandle, in String countryCode, in `RoadPreference` roadPreferenceList, in `ConditionPreference` conditionPreferenceList)
- void `getRoutePreferences` (in Handle routeHandle, in String countryCode, out `RoadPreference` roadPreferenceList, out `ConditionPreference` conditionPreferenceList)
- void `getSupportedRoutePreferences` (out `RoadPreference` routePreferencesList, out `ConditionPreference` conditionPreferenceList)
- void `setRouteSchedule` (in Handle sessionHandle, in Handle routeHandle, in RouteSchedule routeSchedule)
- void `getRouteSchedule` (in Handle routeHandle, in `Schedule` valuesToReturn, out RouteSchedule routeSchedule)
- void `setTransportationMeans` (in Handle sessionHandle, in Handle routeHandle, in `TransportationMeans` transportationMeansList)

- void `getTransportationMeans` (in Handle routeHandle, out `TransportationMeans` transportationMeansList)
- void `getSupportedTransportationMeans` (out `TransportationMeans` transportationMeansList)
- void `setExcludedAreas` (in Handle sessionHandle, in Handle routeHandle, in Polygon excludedAreas)
- void `getExcludedAreas` (in Handle routeHandle, out Polygon excludedAreas)
- void `setWaypoints` (in Handle sessionHandle, in Handle routeHandle, in Boolean startFromCurrentPosition, in WayPoint waypointsList)
- void `getWaypoints` (in Handle routeHandle, out Boolean startFromCurrentPosition, out WayPoint waypointsList)
- void `calculateRoute` (in Handle sessionHandle, in Handle routeHandle)
- void `cancelRouteCalculation` (in Handle sessionHandle, in Handle routeHandle)
- void `calculateAlternativeRoutes` (in Handle sessionHandle, in Handle calculatedRoute, in UInt16 numberOfAlternativeRoutes, out Handle alternativeRoutesList)
- void `getRouteSegments` (in Handle routeHandle, in Int16 detailLevel, in `RouteSegmentType` valuesToReturn, in UInt32 numberOfSegments, in UInt32 offset, out UInt32 totalNumberOfSegments, out `RouteSegment` routeSegments)
- void `getRouteOverview` (in Handle routeHandle, in `RouteOverviewType` valuesToReturn, out `RouteOverview` routeOverview)
- void `getRouteBoundingBox` (in Handle routeHandle, out Rectangle boundingBox)
- void `getAllRoutes` (out Handle routesList)
- void `setBlockedRouteStretches` (in Handle sessionHandle, in Handle routeHandle, in `BlockedRouteElement` blockParameters)
- void `getBlockedRouteStretches` (in Handle routeHandle, out `BlockedRouteElement` blockParameters)

Public Attributes

- map_`UnfulfilledRoutePreference` `PreferenceMode` => `RoutePreferenceSource`
- map_`RouteSchedule` `Schedule` => UInt32
- map_`RouteOverview` `RouteOverviewType` => `RouteOverviewItem`
- map_`WayPoint` `WaypointElementType` => `WayPointItem`
- map_`RouteSegment` `RouteSegmentType` => `RouteSegmentItem`

2.27.1 Detailed Description

#comment : This interface offers functions that implement the routing functionality of a navigation system

2.27.2 Member Enumeration Documentation

2.27.2.1 CalculationError

```
enum org::genivi::navigation::navigationcore::Routing::CalculationError : BasicEnum
```

Enumerator

<code>UNMATCHED_POSITION</code>	
<code>UNREACHABLE_DESTINATION</code>	
<code>UNFULFILLED_PREFERENCE_MODE</code>	

2.27.2.2 CalculationStatus

```
enum org::genivi::navigation::navigationcore::Routing::CalculationStatus : BasicEnum
```

Enumerator

CALCULATION_OK	
NO_POSITION	

2.27.2.3 ConditionPreferenceSource

```
enum org::genivi::navigation::navigationcore::Routing::ConditionPreferenceSource : BasicEnum
```

Enumerator

TRAFFIC_REALTIME	
------------------	--

2.27.2.4 CostModel

```
enum org::genivi::navigation::navigationcore::Routing::CostModel : BasicEnum
```

Enumerator

FASTEST	
SHORTEST	
ECOLOGICAL	
SCENIC	
EASY	
OFF_ROAD	
BALANCED	
CHEAPEST	

2.27.2.5 GeoLocalizedEnum

```
enum org::genivi::navigation::navigationcore::Routing::GeoLocalizedEnum : TimeStampedEnum
```

Enumerator

LATITUDE	
LONGITUDE	
ALTITUDE	

2.27.2.6 PreferenceMode

```
enum org::genivi::navigation::navigationcore::Routing::PreferenceMode : BasicEnum
```

Enumerator

PROHIBIT	
AVOID	
USE	
PREFER	
IGNORE	

2.27.2.7 RouteOverviewType

```
enum org::genivi::navigation::navigationcore::Routing::RouteOverviewType : Schedule
```

Enumerator

TOTAL_TIME	
TOTAL_DISTANCE	

2.27.2.8 RoutePreferenceSource

```
enum org::genivi::navigation::navigationcore::Routing::RoutePreferenceSource : BasicEnum
```

Enumerator

FERRY	
TOLL_ROADS	
TUNNELS	
HIGHWAYS_MOTORWAYS	
VEHICLE_SIZE_LIMIT	
CRIME AREAS	

2.27.2.9 RouteSegmentType

```
enum org::genivi::navigation::navigationcore::Routing::RouteSegmentType : BasicEnum
```

Enumerator

LINK_ID	
START_LATITUDE	
END_LATITUDE	

Enumerator

START_LONGITUDE	
END_LONGITUDE	
START_ALTITUDE	
END_ALTITUDE	
ROAD_NAME	
DISTANCE	
TIME	
MANEUVER	
INSTRUCTION	
BORDER_CROSSING	
ADDITIONAL_INFORMATION	
ROAD_NUMBER	
START_OFFSET	
INTERMEDIATE_POINTS	
HIGHWAY_EXIT	
SPEED	
TIME_ZONE	
DAYLIGHT_SAVING_TIME	

2.27.2.10 Schedule

```
enum org::genivi::navigation::navigationcore::Routing::Schedule : BasicEnum
```

Enumerator

ARRIVAL_TIME	
ARRIVAL_DATE	
DEPARTURE_TIME	
DEPARTURE_DATE	

2.27.2.11 TimeStampedEnum

```
enum org::genivi::navigation::navigationcore::Routing::TimeStampedEnum : BasicEnum
```

Enumerator

TIMESTAMP	
-----------	--

2.27.2.12 TransportationMeans

```
enum org::genivi::navigation::navigationcore::Routing::TransportationMeans : BasicEnum
```

Enumerator

BY_CAR	
ON_FOOT	
LONG_RANGE_TRAINS	
PUBLIC_TRANSPORTATION	
BY_BICYCLE	
BY_TRUCK	

2.27.2.13 WaypointElementType

```
enum org::genivi::navigation::navigationcore::Routing::WaypointElementType
```

Enumerator

LATITUDE	
LONGITUDE	
ALTITUDE	
LOCATION_INPUT	
WAYPOINT_TYPE	

2.27.2.14 WayPointType

```
enum org::genivi::navigation::navigationcore::Routing::WayPointType
```

Enumerator

HARD_POINT	
SOFT_POINT	

2.27.3 Member Function Documentation**2.27.3.1 calculateAlternativeRoutes()**

```
void org::genivi::navigation::navigationcore::Routing::calculateAlternativeRoutes (
    in Handle sessionHandle,
    in Handle calculatedRoute,
    in UInt16 numberOfAlternativeRoutes,
    out Handle alternativeRoutesList )
```

#comment :#comment : calculateAlternativeRoutes = This method allows a client to calculate alternative routes of a route that already calculated.

2.27.3.2 calculateRoute()

```
void org::genivi::navigation::navigationcore::Routing::calculateRoute (
    in Handle sessionHandle,
    in Handle routeHandle )
```

#comment : calculateRoute = This method starts a route calculation

2.27.3.3 cancelRouteCalculation()

```
void org::genivi::navigation::navigationcore::Routing::cancelRouteCalculation (
    in Handle sessionHandle,
    in Handle routeHandle )
```

#comment : cancelRouteCalculation = This method cancels a route calculation

2.27.3.4 createRoute()

```
void org::genivi::navigation::navigationcore::Routing::createRoute (
    in Handle sessionHandle,
    out Handle routeHandle )
```

#comment : This method creates a route

2.27.3.5 deleteRoute()

```
void org::genivi::navigation::navigationcore::Routing::deleteRoute (
    in Handle sessionHandle,
    in Handle routeHandle )
```

#comment : This method deletes a route and its associated resources

2.27.3.6 getAllRoutes()

```
void org::genivi::navigation::navigationcore::Routing::getAllRoutes (
    out Handle routesList )
```

#comment : getAllRoutes = This method retrieves the handles of all created routes

2.27.3.7 getBlockedRouteStretches()

```
void org::genivi::navigation::navigationcore::Routing::getBlockedRouteStretches (
    in Handle routeHandle,
    out BlockedRouteElement blockParameters )
```

#comment : getBlockedRouteStretches = This method retrieves all blocked stretches on a given route

2.27.3.8 getCostModel()

```
void org::genivi::navigation::navigationcore::Routing::getCostModel (
    in Handle routeHandle,
    out CostModel costModel )
```

#comment : This method retrieves the selected cost model

2.27.3.9 getExcludedAreas()

```
void org::genivi::navigation::navigationcore::Routing::getExcludedAreas (
    in Handle routeHandle,
    out Polygon excludedAreas )

#comment : getExcludedAreas = This method retrieves the areas to be excluded when calculating a route
```

2.27.3.10 getRouteBoundingBox()

```
void org::genivi::navigation::navigationcore::Routing::getRouteBoundingBox (
    in Handle routeHandle,
    out Rectangle boundingBox )

#comment : getRouteBoundingBox = This method retrieves the bounding box containing a calculated route
```

2.27.3.11 getRouteOverview()

```
void org::genivi::navigation::navigationcore::Routing::getRouteOverview (
    in Handle routeHandle,
    in RouteOverviewType valuesToReturn,
    out RouteOverview routeOverview )

#comment : getRouteOverview = This method retrieves general information about a given route
```

2.27.3.12 getRoutePreferences()

```
void org::genivi::navigation::navigationcore::Routing::getRoutePreferences (
    in Handle routeHandle,
    in String countryCode,
    out RoadPreference roadPreferenceList,
    out ConditionPreference conditionPreferenceList )
```

#comment : This method retrieves a list of selected route preferences

2.27.3.13 getRouteSchedule()

```
void org::genivi::navigation::navigationcore::Routing::getRouteSchedule (
    in Handle routeHandle,
    in Schedule valuesToReturn,
    out RouteSchedule routeSchedule )
```

#comment : This method gets the time schedule for the route to be calculated

2.27.3.14 getRouteSegments()

```
void org::genivi::navigation::navigationcore::Routing::getRouteSegments (
    in Handle routeHandle,
    in Int16 detailLevel,
    in RouteSegmentType valuesToReturn,
    in UInt32 numberOfSegments,
    in UInt32 offset,
    out UInt32 totalNumberOfSegments,
    out RouteSegment routeSegments )
```

#comment : getRouteSegments = This method retrieves a list of segments for a given route starting from the one closest to the current position to the one closest to the destination

2.27.3.15 getSupportedCostModels()

```
void org::genivi::navigation::navigationcore::Routing::getSupportedCostModels (
    out CostModel costModelsList )
```

#comment : This method retrieves a list of supported cost models

2.27.3.16 getSupportedRoutePreferences()

```
void org::genivi::navigation::navigationcore::Routing::getSupportedRoutePreferences (
    out RoadPreference routePreferencesList,
    out ConditionPreference conditionPreferenceList )
```

#comment : This method retrieves a list of supported route preferences

2.27.3.17 getSupportedTransportationMeans()

```
void org::genivi::navigation::navigationcore::Routing::getSupportedTransportationMeans (
    out TransportationMeans transportationMeansList )
```

#comment : getSupportedTransportationMeans = This method retrieves a list of supported means of transportation

2.27.3.18 getTransportationMeans()

```
void org::genivi::navigation::navigationcore::Routing::getTransportationMeans (
    in Handle routeHandle,
    out TransportationMeans transportationMeansList )
```

#comment : getTransportationMeans = This method retrieves the selected means of transportation

2.27.3.19 getVersion()

```
void org::genivi::navigation::navigationcore::Routing::getVersion (
    out Version version )
```

#comment : This method returns the API version implemented by the server application

2.27.3.20 getWaypoints()

```
void org::genivi::navigation::navigationcore::Routing::getWaypoints (
    in Handle routeHandle,
    out Boolean startFromCurrentPosition,
    out WayPoint waypointsList )
```

#comment : getWaypoints = This method retrieves a list of waypoints

2.27.3.21 setBlockedRouteStretches()

```
void org::genivi::navigation::navigationcore::Routing::setBlockedRouteStretches (
    in Handle sessionHandle,
    in Handle routeHandle,
    in BlockedRouteElement blockParameters )
```

#comment : setBlockedRouteStretches = This method sets blocked stretches on a given route

2.27.3.22 setCostModel()

```
void org::genivi::navigation::navigationcore::Routing::setCostModel (
    in Handle sessionHandle,
    in Handle routeHandle,
    in CostModel costModel )
```

#comment : This method sets the cost model

2.27.3.23 setExcludedAreas()

```
void org::genivi::navigation::navigationcore::Routing::setExcludedAreas (
    in Handle sessionHandle,
    in Handle routeHandle,
    in Polygon excludedAreas )
```

#comment : setExcludedAreas = This method sets the areas to be excluded when calculating a route

2.27.3.24 setRoutePreferences()

```
void org::genivi::navigation::navigationcore::Routing::setRoutePreferences (
    in Handle sessionHandle,
    in Handle routeHandle,
    in String countryCode,
    in RoadPreference roadPreferenceList,
    in ConditionPreference conditionPreferenceList )
```

#comment : This method sets a list of route preferences

2.27.3.25 setRouteSchedule()

```
void org::genivi::navigation::navigationcore::Routing::setRouteSchedule (
    in Handle sessionHandle,
    in Handle routeHandle,
    in RouteSchedule routeSchedule )
```

#comment : This method sets the time schedule for the route to be calculated

2.27.3.26 setTransportationMeans()

```
void org::genivi::navigation::navigationcore::Routing::setTransportationMeans (
    in Handle sessionHandle,
    in Handle routeHandle,
    in TransportationMeans transportationMeansList )
```

#comment : This method sets a list of means of transportation that must be considered when calculating a route

2.27.3.27 setWaypoints()

```
void org::genivi::navigation::navigationcore::Routing::setWaypoints (
    in Handle sessionHandle,
    in Handle routeHandle,
    in Boolean startFromCurrentPosition,
    in WayPoint waypointsList )
```

#comment : setWaypoints = This method sets a list of waypoints

2.27.4 Member Data Documentation

2.27.4.1 PreferenceMode

```
map_UnfullfilledRoutePreference org::genivi::navigation::navigationcore::Routing::Preference<→
Mode =>RoutePreferenceSource
```

2.27.4.2 RouteOverviewType

```
map_RouteOverview org::genivi::navigation::navigationcore::Routing::RouteOverviewType =>Route<→
OverviewItem
```

2.27.4.3 RouteSegmentType

```
map_RouteSegment org::genivi::navigation::navigationcore::Routing::RouteSegmentType =>Route<→
SegmentItem
```

2.27.4.4 Schedule

```
map_RouteSchedule org::genivi::navigation::navigationcore::Routing::Schedule =>UInt32
```

2.27.4.5 WaypointElementType

```
map_WayPoint org::genivi::navigation::navigationcore::Routing::WaypointElementType =>Way<→
PointItem
```

The documentation for this interface was generated from the following file:

- [Routing.fidl](#)

2.28 org::genivi::navigation::navigationcore::Routing_client Interface Reference

Public Member Functions

- void [routeDeleted](#) (in Handle routeHandle)
- void [routeCalculationCancelled](#) (in Handle routeHandle)
- void [routeCalculationSuccessful](#) (in Handle routeHandle, in UnfullfilledRoutePreference unfullfilledPreferences)
- void [routeCalculationFailed](#) (in Handle Handle, in CalculationError errorCode, in UnfullfilledRoutePreference unfullfilledPreferences)
- void [routeCalculationProgressUpdate](#) (in Handle routeHandle, in CalculationStatus status, in UInt8 percentage)
- void [alternativeRoutesAvailable](#) (in Handle routeHandlesList)

2.28.1 Member Function Documentation

2.28.1.1 alternativeRoutesAvailable()

```
void org::genivi::navigation::navigationcore::Routing_client::alternativeRoutesAvailable (
    in Handle routeHandlesList )
```

broadcast #comment : alternativeRoutesAvailable = This signal is emitted when alternative routes have been computed in the background and are available for guidance.

2.28.1.2 routeCalculationCancelled()

```
void org::genivi::navigation::navigationcore::Routing_client::routeCalculationCancelled (
    in Handle routeHandle )
```

broadcast #comment : routeCalculationCancelled = This signal informs a client that a route calculation was cancelled

2.28.1.3 routeCalculationFailed()

```
void org::genivi::navigation::navigationcore::Routing_client::routeCalculationFailed (
    in Handle Handle,
    in CalculationError errorCode,
    in UnfullfilledRoutePreference unfullfilledPreferences )
```

broadcast #comment : routeCalculationFailed = This signal informs a client that a route calculation failed

2.28.1.4 routeCalculationProgressUpdate()

```
void org::genivi::navigation::navigationcore::Routing_client::routeCalculationProgressUpdate (
    in Handle routeHandle,
    in CalculationStatus status,
    in UInt8 percentage )
```

broadcast #comment : routeCalculationProgressUpdate = This signal informs a client about a route calculation progress

2.28.1.5 routeCalculationSuccessful()

```
void org::genivi::navigation::navigationcore::Routing_client::routeCalculationSuccessful (
    in Handle routeHandle,
    in UnfullfilledRoutePreference unfullfilledPreferences )
```

broadcast #comment : routeCalculationSuccessful = This signal informs a client that a route calculation was successful

2.28.1.6 routeDeleted()

```
void org::genivi::navigation::navigationcore::Routing_client::routeDeleted (
    in Handle routeHandle )
```

broadcast #comment : routeDeleted = This signal is emitted to inform clients that the current route has been deleted

The documentation for this interface was generated from the following file:

- [Routing.fidl](#)

2.29 org::genivi::navigation::navigationcore::Session Interface Reference

Public Member Functions

- void `getVersion` (out Version *version*)
- void `createSession` (in String *clientApp*, out Handle *sessionHandle*)
- void `deleteSession` (in Handle *sessionHandle*)
- void `getSessionStatus` (in Handle *sessionHandle*, out SessionStatus *sessionStatus*)
- void `getAllSessions` (out Session *sessionsList*)

2.29.1 Detailed Description

#comment : This interface offers methods that implement the navigation core session functionality of a navigation system.

2.29.2 Member Function Documentation

2.29.2.1 `createSession()`

```
void org::genivi::navigation::navigationcore::Session::createSession (
    in String clientApp,
    out Handle sessionHandle )
```

#comment : `createSession` = This method creates a new session and retrieves a handle .

2.29.2.2 `deleteSession()`

```
void org::genivi::navigation::navigationcore::Session::deleteSession (
    in Handle sessionHandle )
```

#comment : `deleteSession` = This method deletes a session and its associated resources .

2.29.2.3 `getAllSessions()`

```
void org::genivi::navigation::navigationcore::Session::getAllSessions (
    out Session sessionsList )
```

#comment : This method returns a list of all available sessions .

2.29.2.4 `getSessionStatus()`

```
void org::genivi::navigation::navigationcore::Session::getSessionStatus (
    in Handle sessionHandle,
    out SessionStatus sessionStatus )
```

#comment : This method returns whether a given session handle is available or not (for example because it was deleted) .

2.29.2.5 getVersion()

```
void org::genivi::navigation::navigationcore::Session::getVersion (
    out Version version )
```

#comment : This method returns the API version .

The documentation for this interface was generated from the following file:

- [Session.fidl](#)

2.30 org::genivi::navigation::navigationcore::Session_client Interface Reference

Public Member Functions

- void [sessionDeleted](#) (in Handle sessionHandle)

2.30.1 Member Function Documentation

2.30.1.1 sessionDeleted()

```
void org::genivi::navigation::navigationcore::Session_client::sessionDeleted (
    in Handle sessionHandle )
```

broadcast #comment : sessionDeleted = This signal is emitted when a session is deleted

The documentation for this interface was generated from the following file:

- [Session.fidl](#)

2.31 org::genivi::navigation::navigationcore::Routing::WayPointItem Union Reference

Public Attributes

- Double coordinateValue
- [WayPointType](#) waypointValue
- UInt8 [] metaData

2.31.1 Member Data Documentation

2.31.1.1 coordinateValue

```
Double org::genivi::navigation::navigationcore::Routing::WayPointItem::coordinateValue
```

2.31.1.2 metaData

```
UInt8 [ ] org::genivi::navigation::navigationcore::Routing::WayPointItem::metaData
```

2.31.1.3 waypointValue

```
WayPointType org::genivi::navigation::navigationcore::Routing::WayPointItem::waypointValue
```

The documentation for this union was generated from the following file:

- [Routing.fidl](#)

2.32 org::genivi::navigation::navigationcore::Guidance::WaypointStruct Struct Reference

Public Attributes

- [UInt32 waypointOffset](#)
- [UInt32 travelTime](#)
- [Int32 direction](#)
- [Side side](#)
- [Int16 timeZone](#)
- [Int16 daylightSavingTime](#)
- [Boolean isDestination](#)
- [UInt16 number](#)

2.32.1 Member Data Documentation

2.32.1.1 [daylightSavingTime](#)

```
Int16 org::genivi::navigation::navigationcore::Guidance::WaypointStruct::daylightSavingTime
```

2.32.1.2 [direction](#)

```
Int32 org::genivi::navigation::navigationcore::Guidance::WaypointStruct::direction
```

2.32.1.3 [isDestination](#)

```
Boolean org::genivi::navigation::navigationcore::Guidance::WaypointStruct::isDestination
```

2.32.1.4 number

```
UInt16 org::genivi::navigation::navigationcore::Guidance::WaypointStruct::number
```

2.32.1.5 side

```
Side org::genivi::navigation::navigationcore::Guidance::WaypointStruct::side
```

2.32.1.6 timeZone

```
Int16 org::genivi::navigation::navigationcore::Guidance::WaypointStruct::timeZone
```

2.32.1.7 travelTime

```
UInt32 org::genivi::navigation::navigationcore::Guidance::WaypointStruct::travelTime
```

2.32.1.8 waypointOffset

```
UInt32 org::genivi::navigation::navigationcore::Guidance::WaypointStruct::waypointOffset
```

The documentation for this struct was generated from the following file:

- [Guidance.fidl](#)

3 File Documentation

3.1 Configuration.fidl File Reference

Classes

- interface [org::genivi::navigation::navigationcore::Configuration](#)
- interface [org::genivi::navigation::navigationcore::Configuration_client](#)

Modules

- module [org::genivi::navigation::navigationcore](#)

3.2 Guidance.fidl File Reference

Classes

- interface [org::genivi::navigation::navigationcore::Guidance](#)
- union [org::genivi::navigation::navigationcore::Guidance::ManeuverDataValue](#)
- struct [org::genivi::navigation::navigationcore::Guidance::LaneInfo](#)
- struct [org::genivi::navigation::navigationcore::Guidance::WaypointStruct](#)
- struct [org::genivi::navigation::navigationcore::Guidance::ManeuverItem](#)
- struct [org::genivi::navigation::navigationcore::Guidance::Maneuver](#)
- interface [org::genivi::navigation::navigationcore::Guidance_client](#)

Modules

- module [org::genivi::navigation::navigationcore](#)

3.3 LocationInput.fidl File Reference

Classes

- interface [org::genivi::navigation::navigationcore::LocationInput](#)
- union [org::genivi::navigation::navigationcore::LocationInput::AddressValue](#)
- interface [org::genivi::navigation::navigationcore::LocationInput_client](#)

Modules

- module [org::genivi::navigation::navigationcore](#)

3.4 MapMatchedPosition.fidl File Reference

Classes

- interface [org::genivi::navigation::navigationcore::MapMatchedPosition](#)
- union [org::genivi::navigation::navigationcore::MapMatchedPosition::PositionItemValue](#)
- union [org::genivi::navigation::navigationcore::MapMatchedPosition::AddressItemValue](#)
- union [org::genivi::navigation::navigationcore::MapMatchedPosition::PositionOnSegmentValue](#)
- union [org::genivi::navigation::navigationcore::MapMatchedPosition::PositionStatusValue](#)
- interface [org::genivi::navigation::navigationcore::MapMatchedPosition_client](#)

Modules

- module [org::genivi::navigation::navigationcore](#)

3.5 NavigationCoreTypes.fidl File Reference

Classes

- interface [org::genivi::navigation::navigationcore::NavigationCoreTypes](#)
- struct [org::genivi::navigation::navigationcore::NavigationCoreTypes::RoadShieldAffix](#)
- struct [org::genivi::navigation::navigationcore::NavigationCoreTypes::RoadShield](#)

Modules

- module [org::genivi::navigation::navigationcore](#)

3.6 Routing.fidl File Reference

Classes

- interface [org::genivi::navigation::navigationcore::Routing](#)
- struct [org::genivi::navigation::navigationcore::Routing::RoadPreference](#)
- struct [org::genivi::navigation::navigationcore::Routing::ConditionPreference](#)
- struct [org::genivi::navigation::navigationcore::Routing::IntermediatePoint](#)
- union [org::genivi::navigation::navigationcore::Routing::RouteOverviewItem](#)
- union [org::genivi::navigation::navigationcore::Routing::WayPointItem](#)
- union [org::genivi::navigation::navigationcore::Routing::RouteSegmentItem](#)
- struct [org::genivi::navigation::navigationcore::Routing::BlockedRouteElement](#)
- interface [org::genivi::navigation::navigationcore::Routing_client](#)

Modules

- module [org::genivi::navigation::navigationcore](#)

3.7 Session.fidl File Reference

Classes

- interface [org::genivi::navigation::navigationcore::Session](#)
- interface [org::genivi::navigation::navigationcore::Session_client](#)

Modules

- module [org::genivi::navigation::navigationcore](#)

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