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## GENIVI Alliance

<sup>3</sup>GENIVI Document CS00064

<sup>4</sup>NavigationCore

<sup>5</sup>Component Specification

<sup>6</sup>Accepted Version 4.0.0

<sup>7</sup>25-01-2017

<sup>8</sup>Sponsored by:

<sup>9</sup>GENIVI Alliance

<sup>10</sup>true

<sup>11</sup>Accepted

<sup>12</sup>**Abstract:**

<sup>13</sup>This document provides the Component Specification for the NavigationCore

<sup>14</sup>**Keywords:**

<sup>15</sup>Navigation, LocationInput, Routing, Guidance

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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

## **2 Introduction**

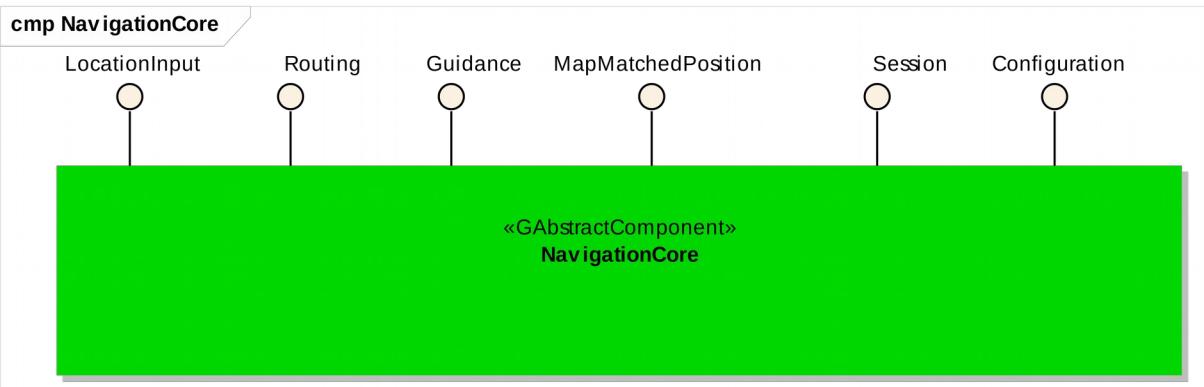
2This document describes the NavigationCore API.

## **<sup>1</sup>3 Terminology**

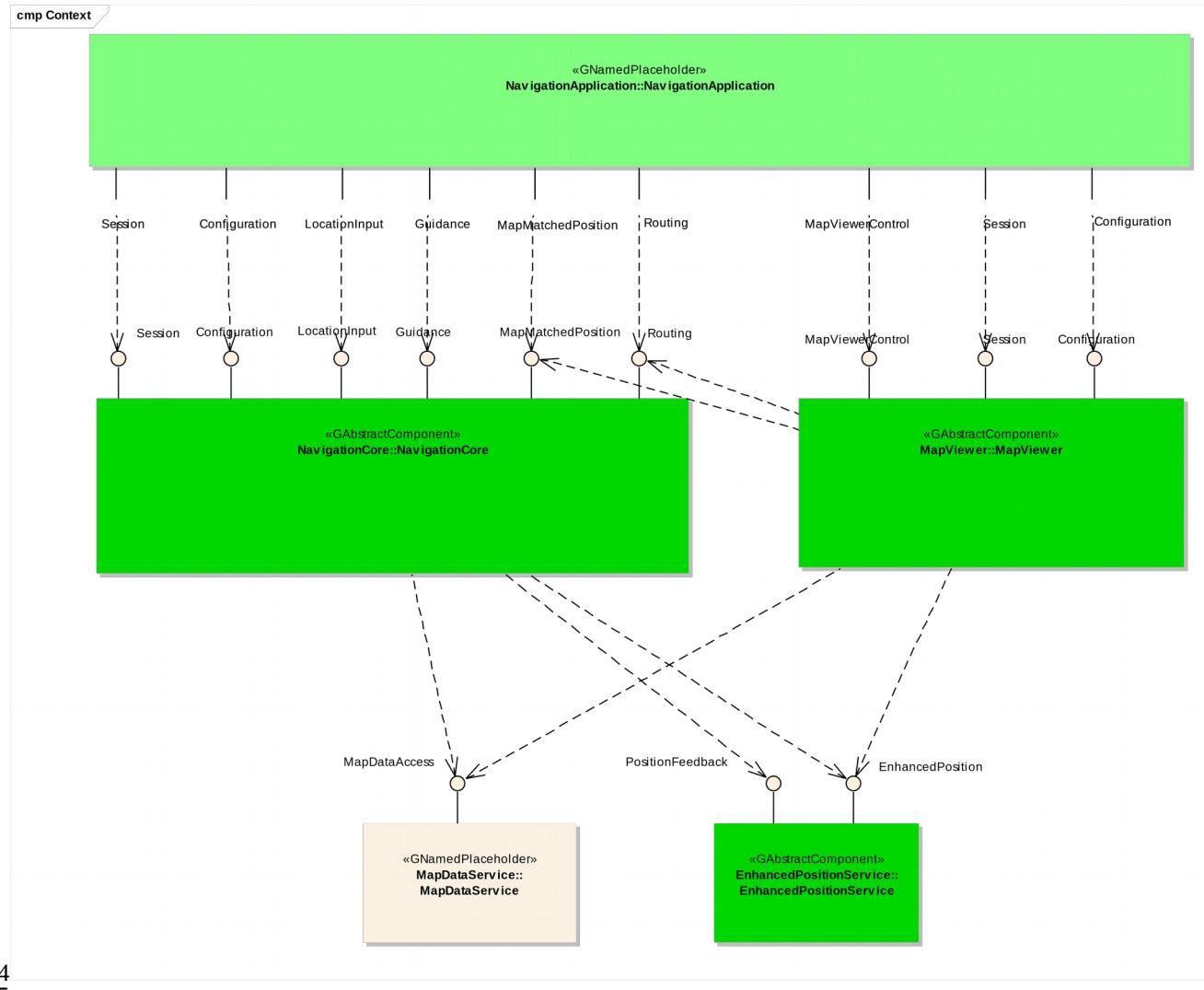
<b><i>Term</i></b>	<b><i>Description</i></b>
Link-ID	Identifier of a route segment in a database

## 4 Architecture

### 4.1 Interfaces



## 34.2 Interaction with other Components



## **15 API**

### **25.1 Git Repository**

3The NavigationCore interfaces can be found in the GENIVI Git repository at:

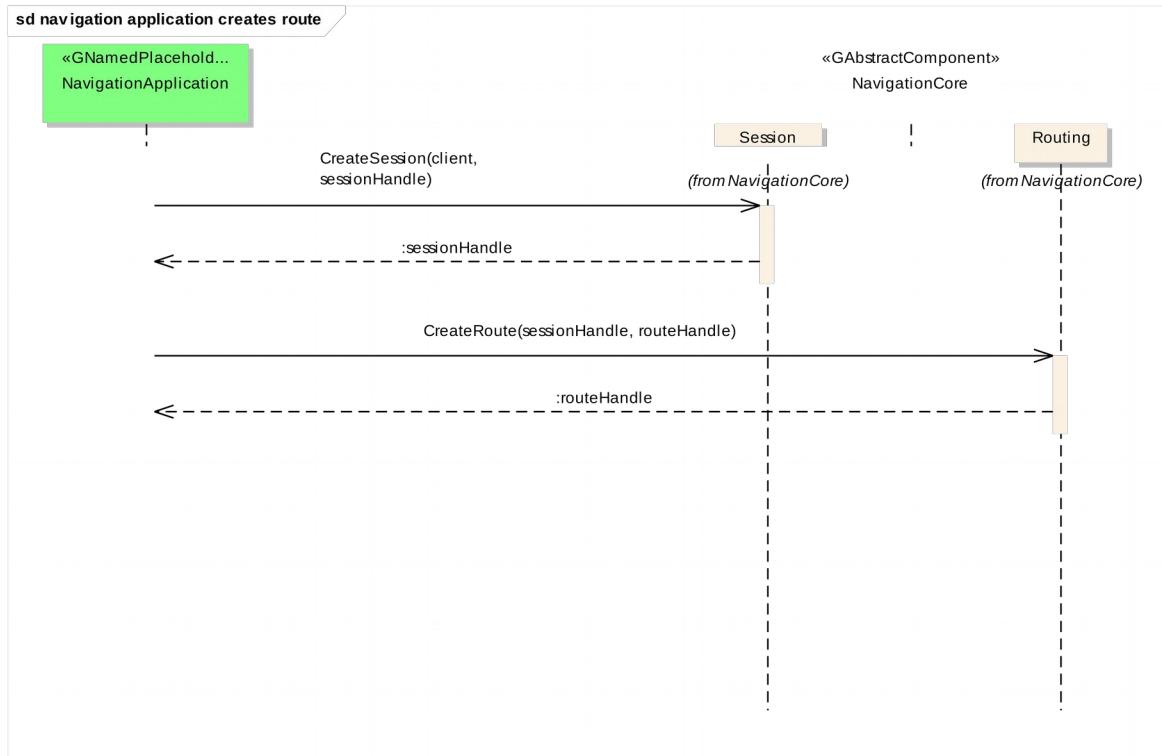
4<https://github.com/GENIVI/navigation/tree/master/api/franca/navigation/navigationcore>

### **5.2 Sequence Diagrams**

#### **65.2.1 navigation application creates route**

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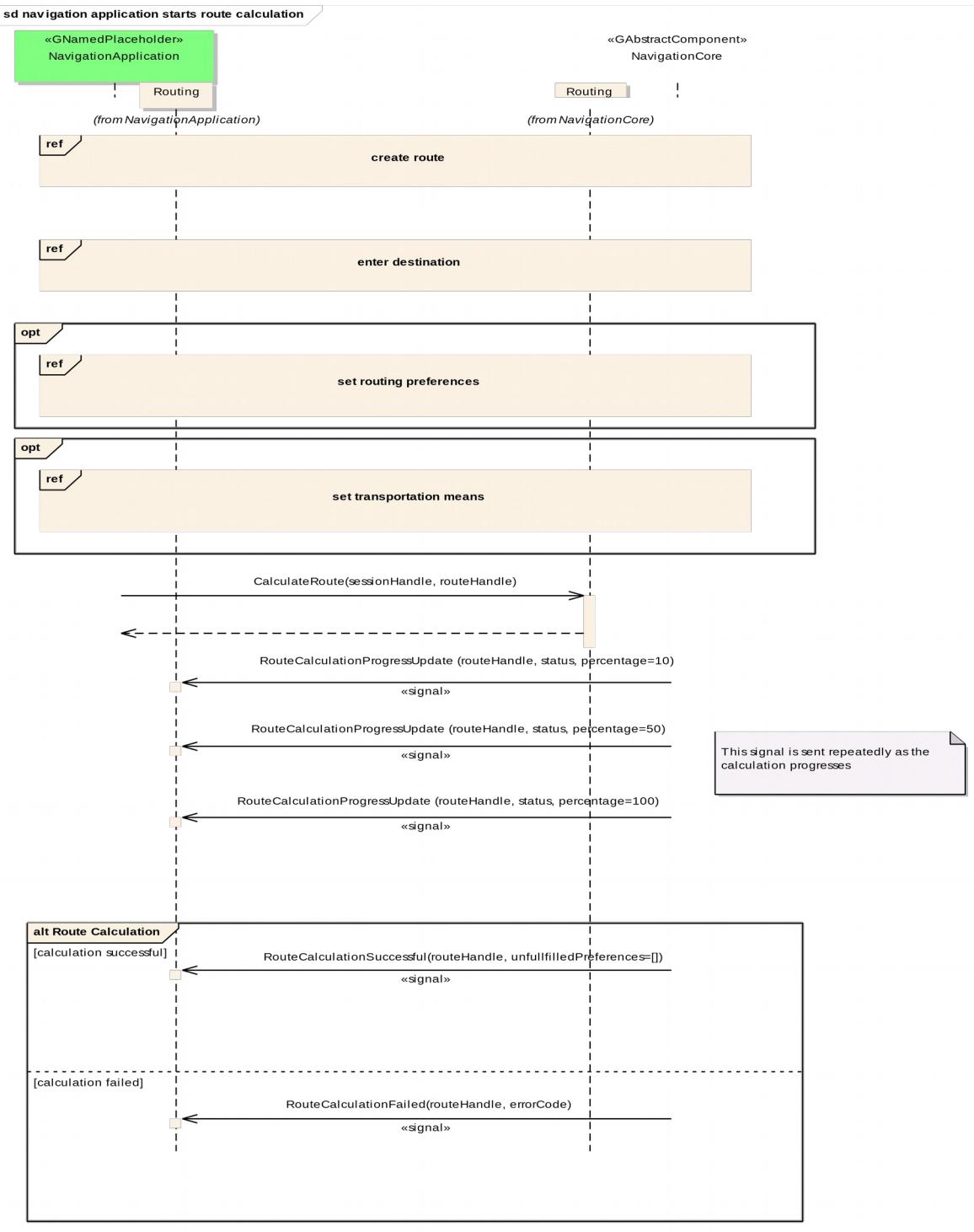
8



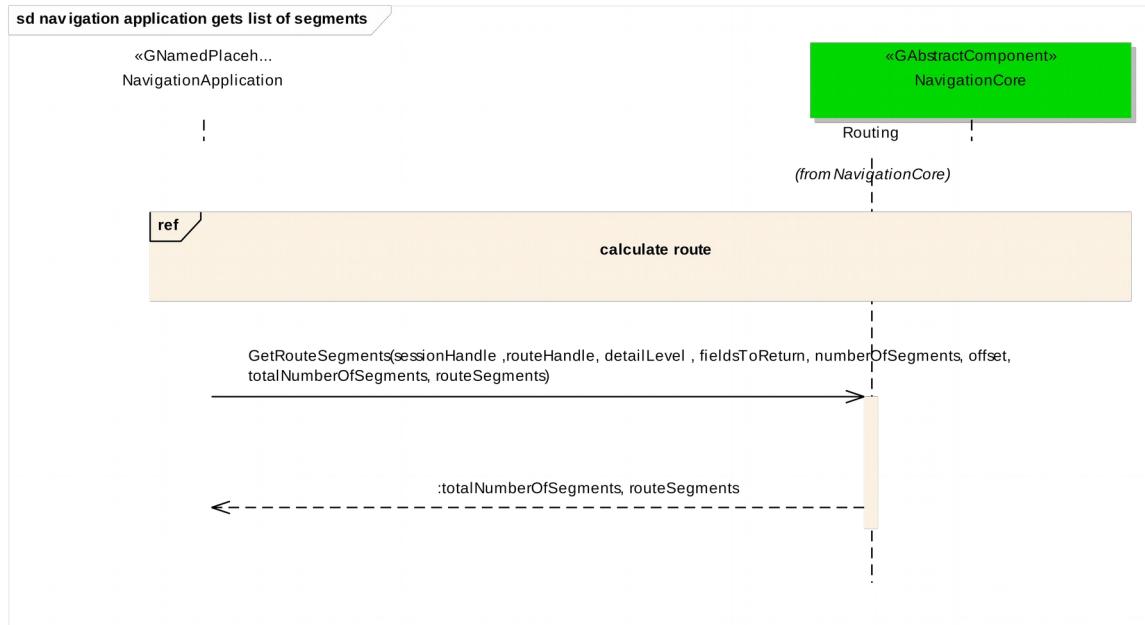
9

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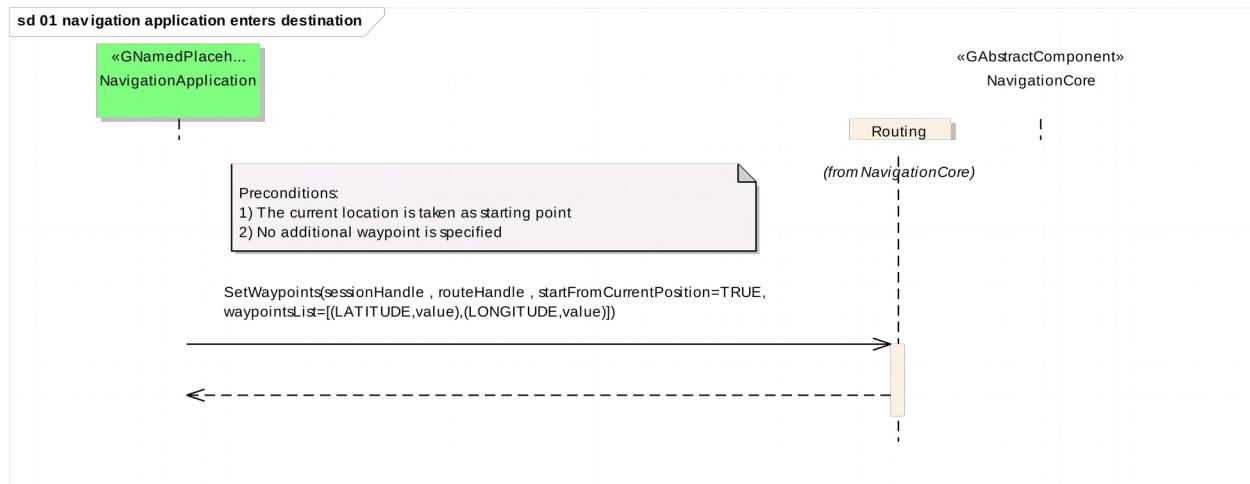
## **15.2.2 navigation application starts route calculation**



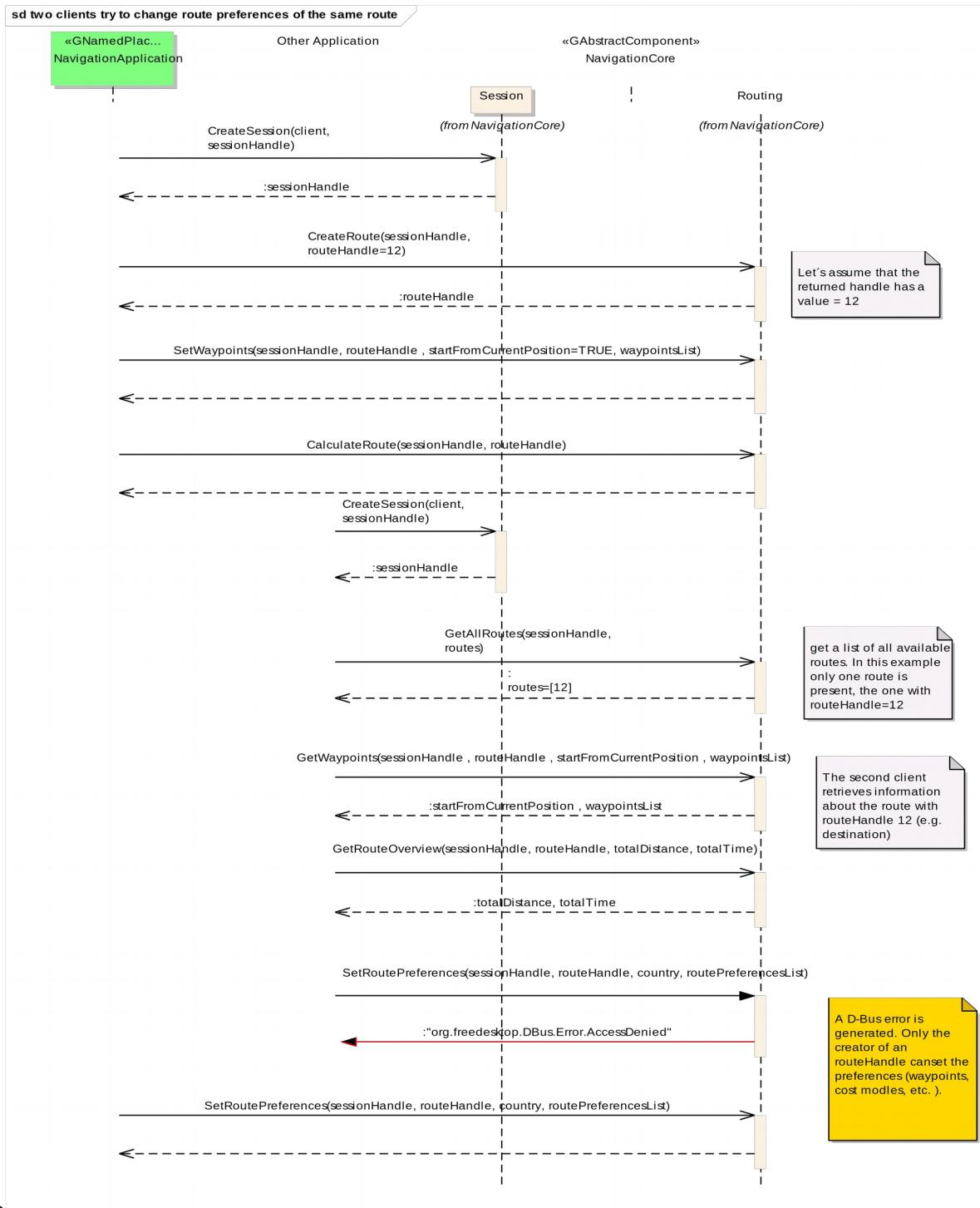
## 2 5.2.3 navigation application gets list of segments



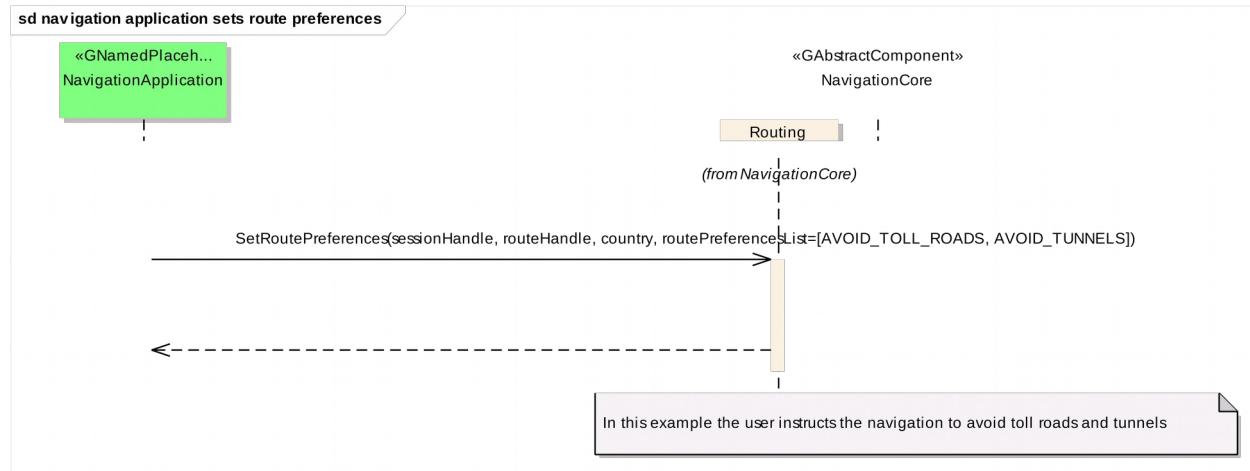
## 25.2.4 navigation application enters destination



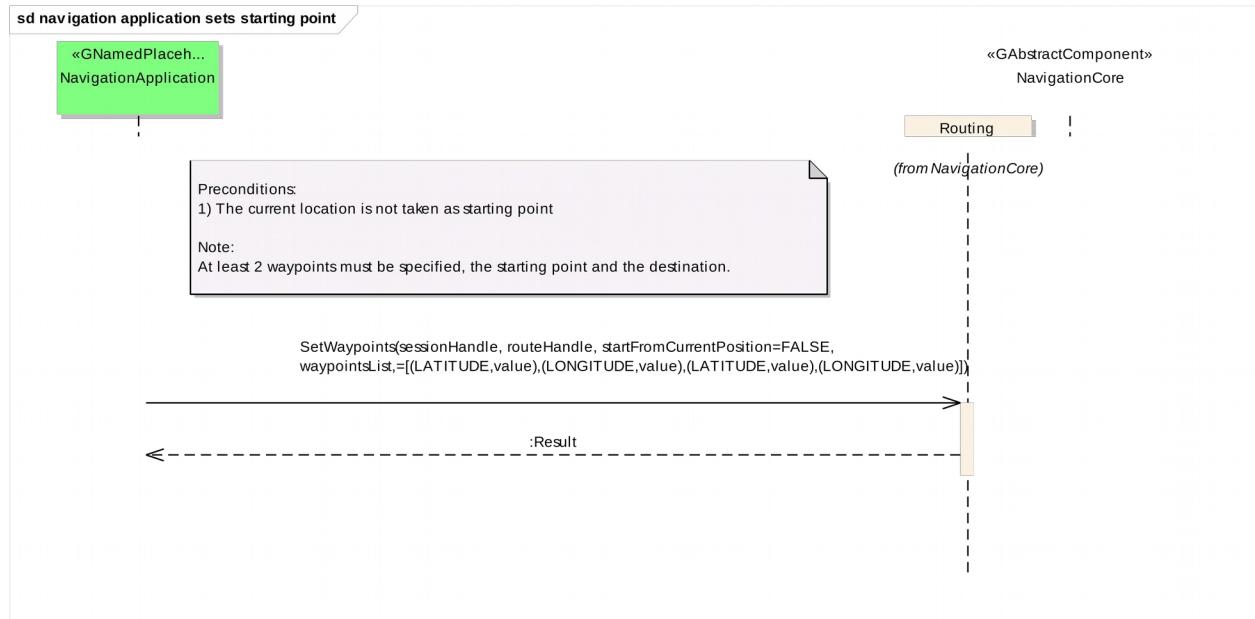
## 15.2.5 two clients try to change route preferences of the same route



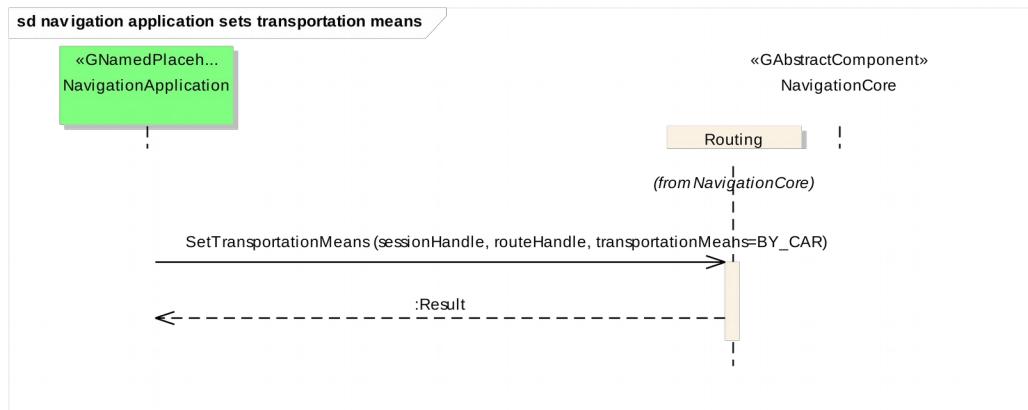
### 3 5.2.6 navigation application sets route preferences



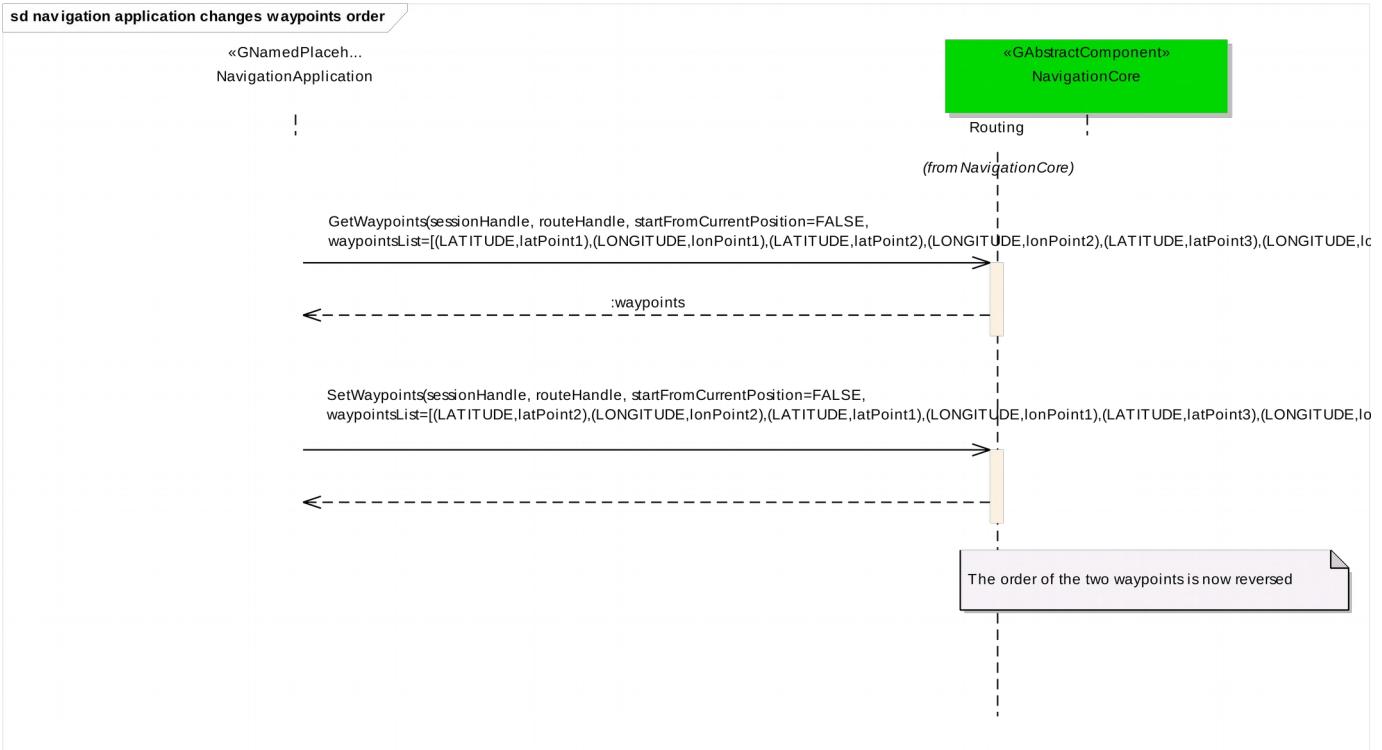
### 3 5.2.7 navigation application sets starting point



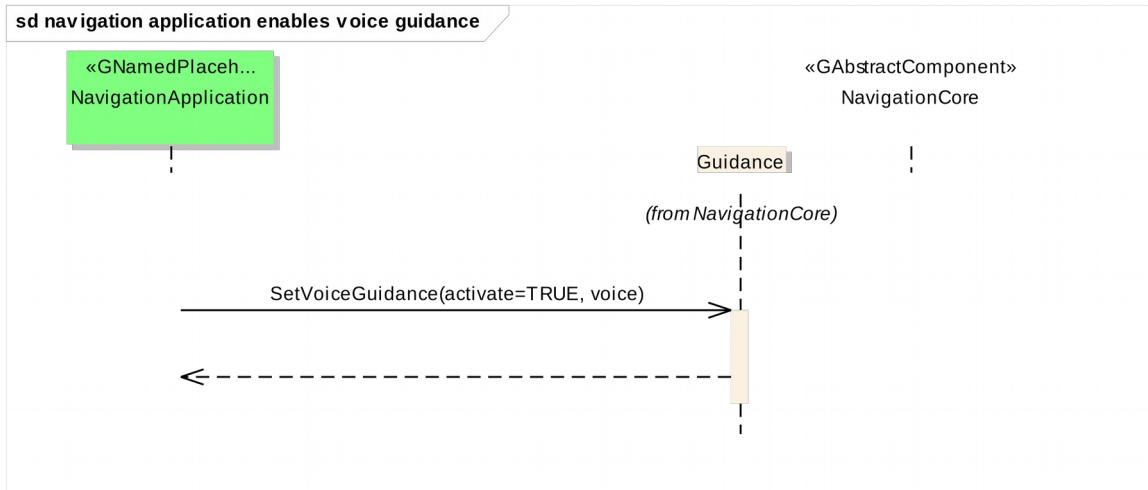
## 25.2.8 navigation application sets transportation means



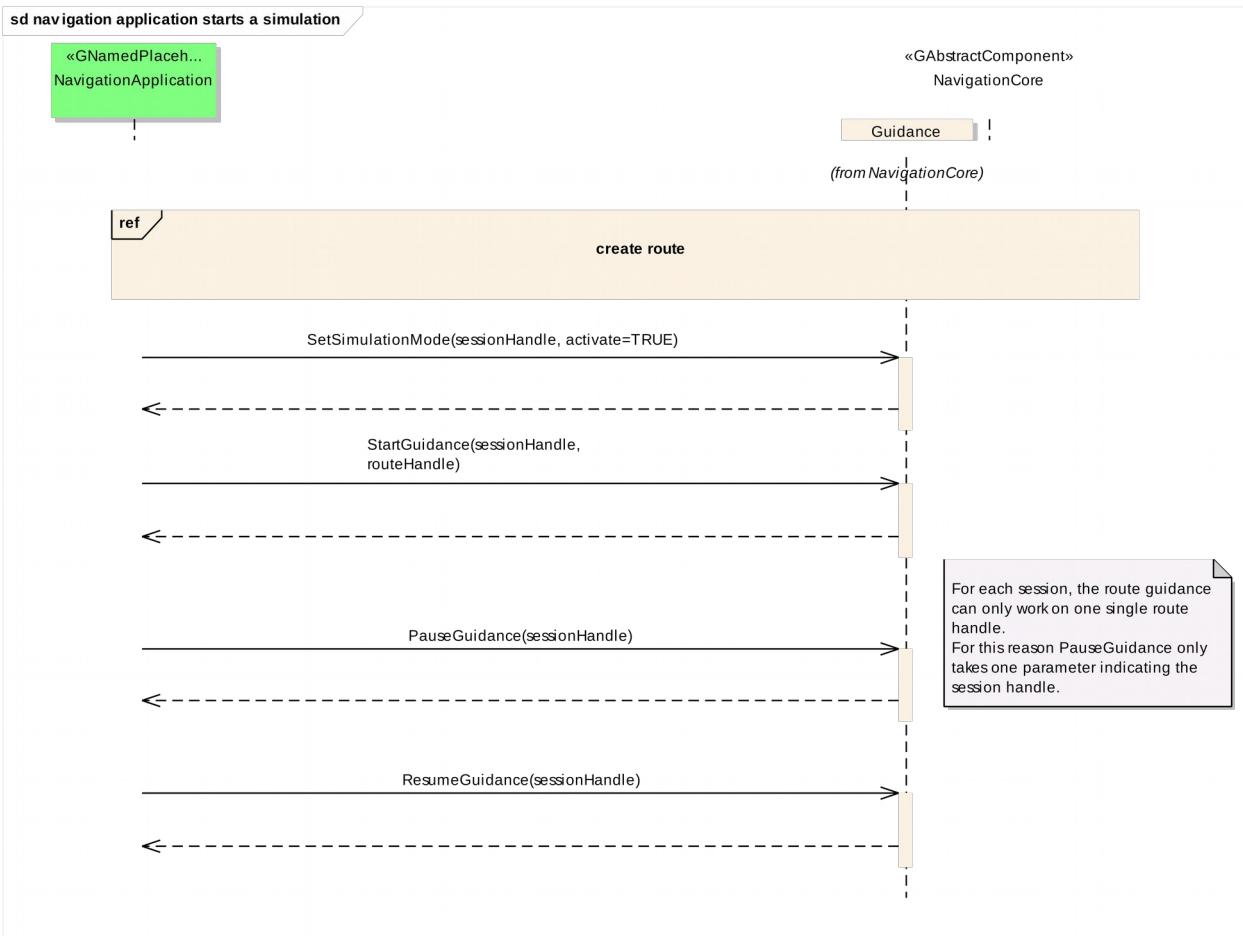
## 25.2.9 navigation application changes waypoints order



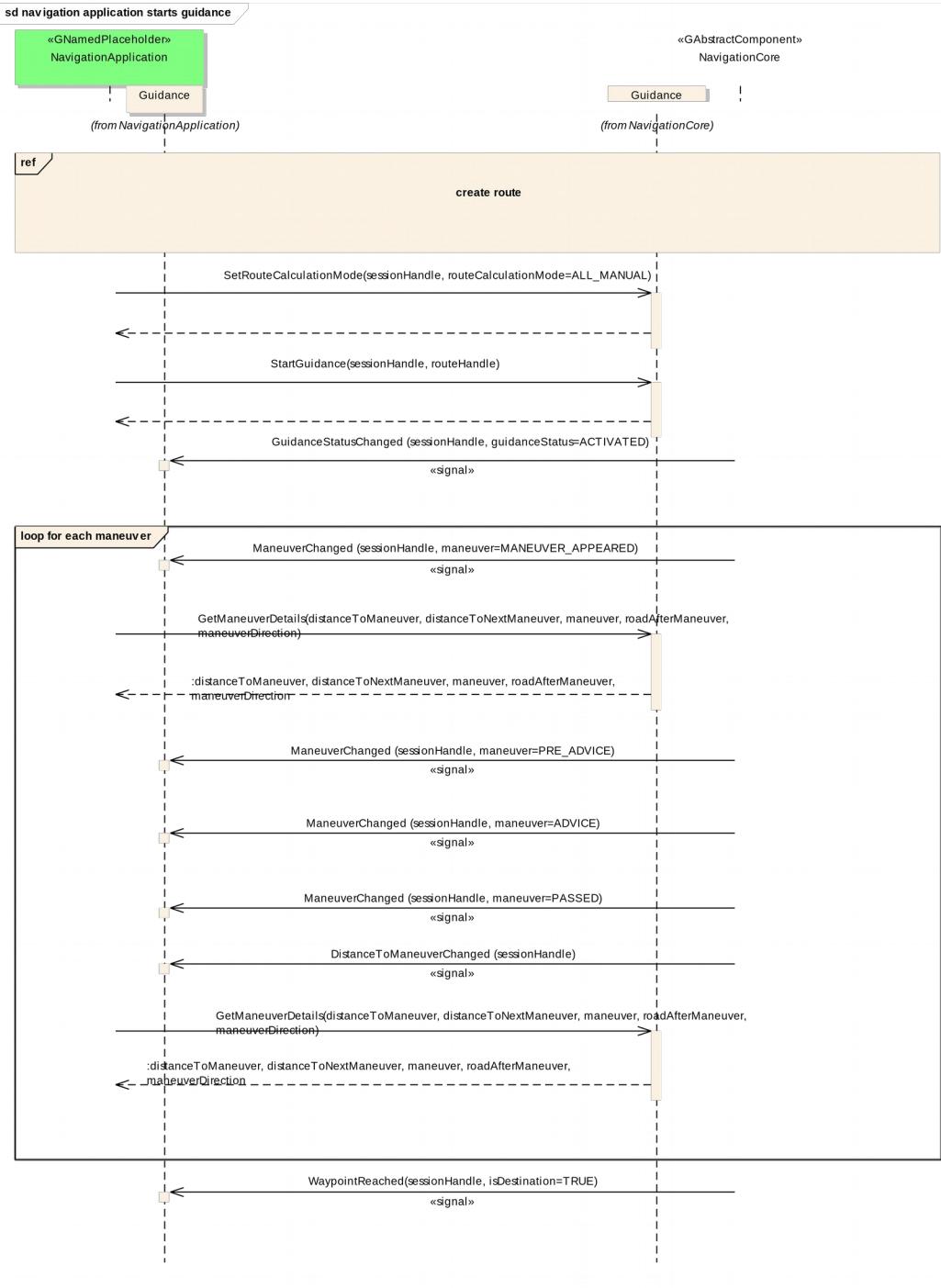
## **15.2.10 navigation application enables voice guidance**



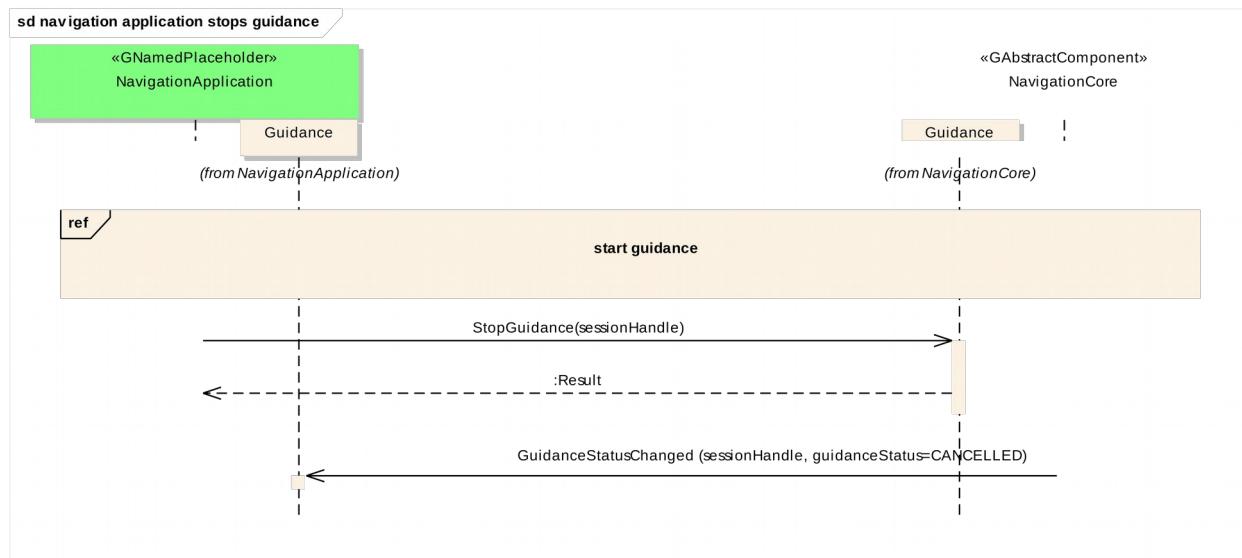
## 25.2.11 navigation application starts a simulation



## 15.2.12 navigation application starts guidance

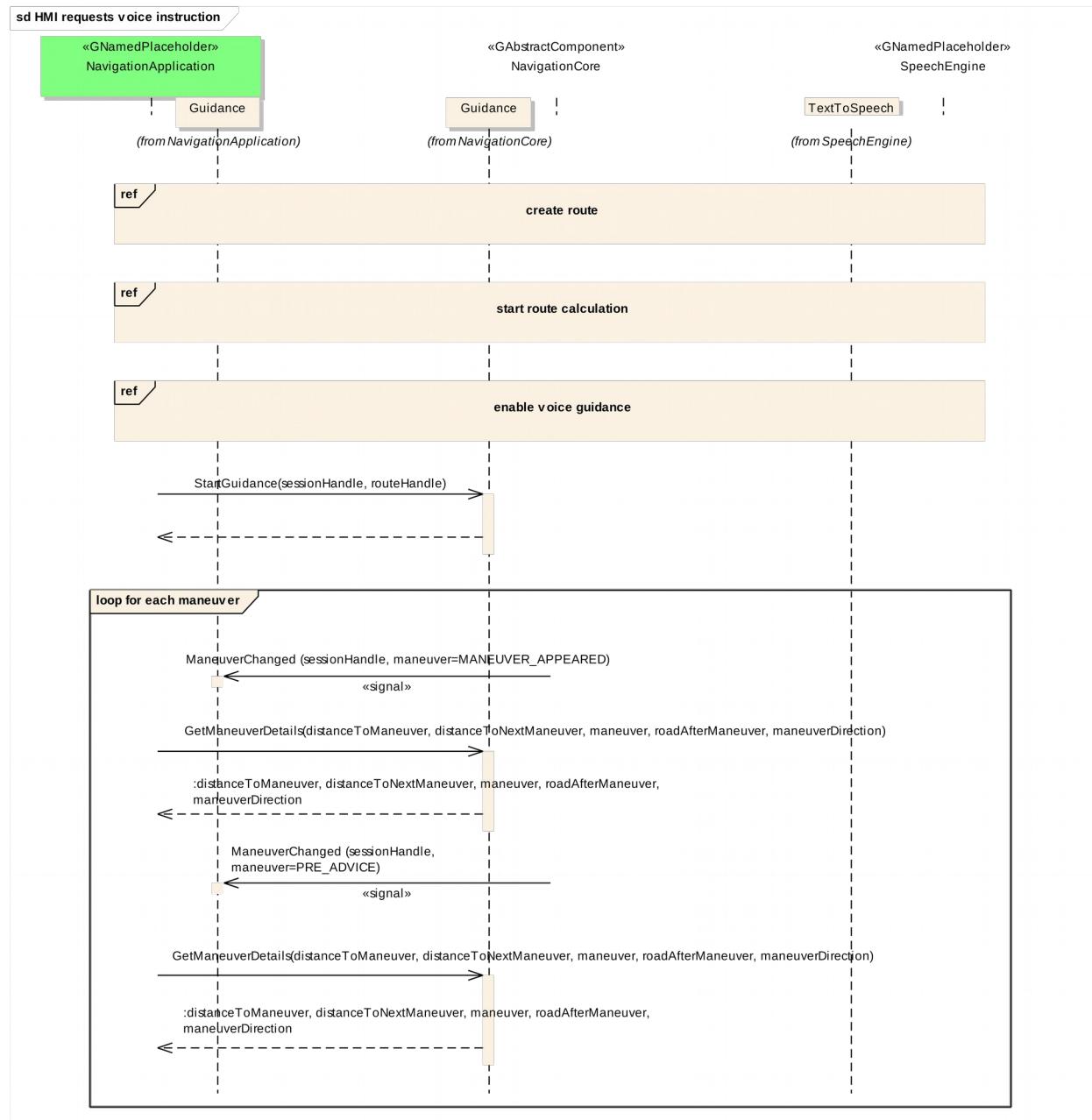


## 15.2.13 navigation application stops guidance



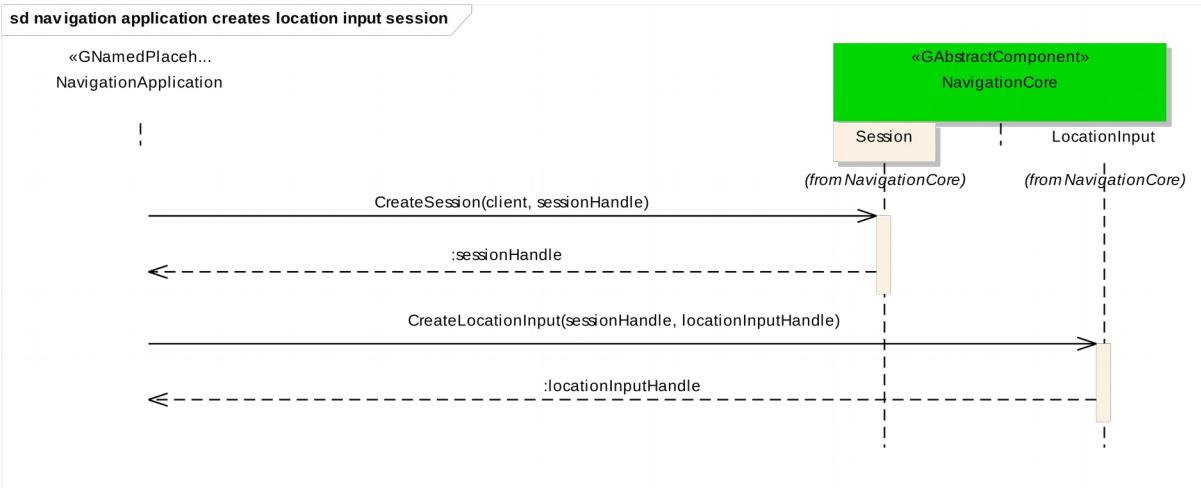
### 3.5.2.14 HMI requests voice instruction

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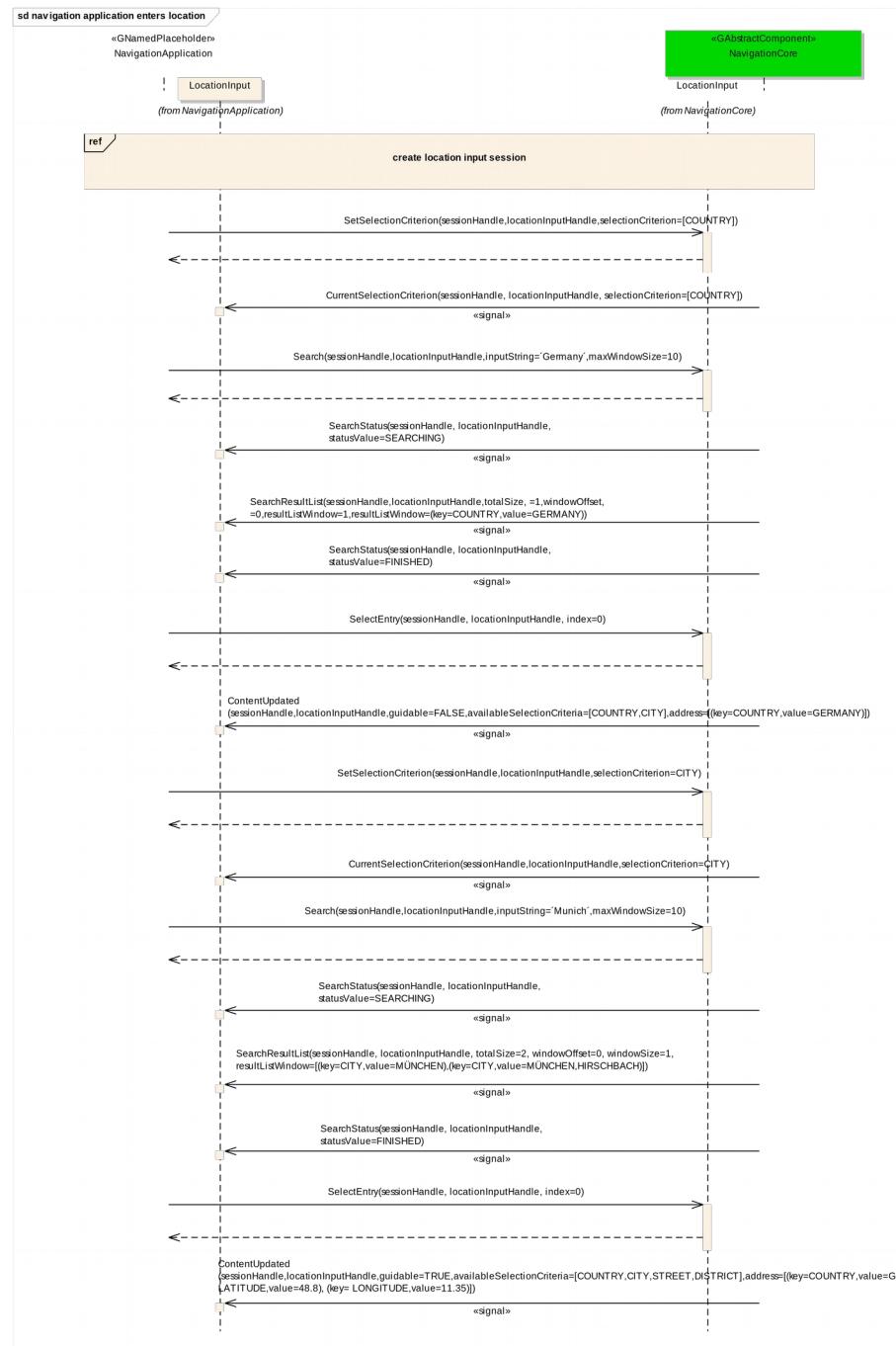


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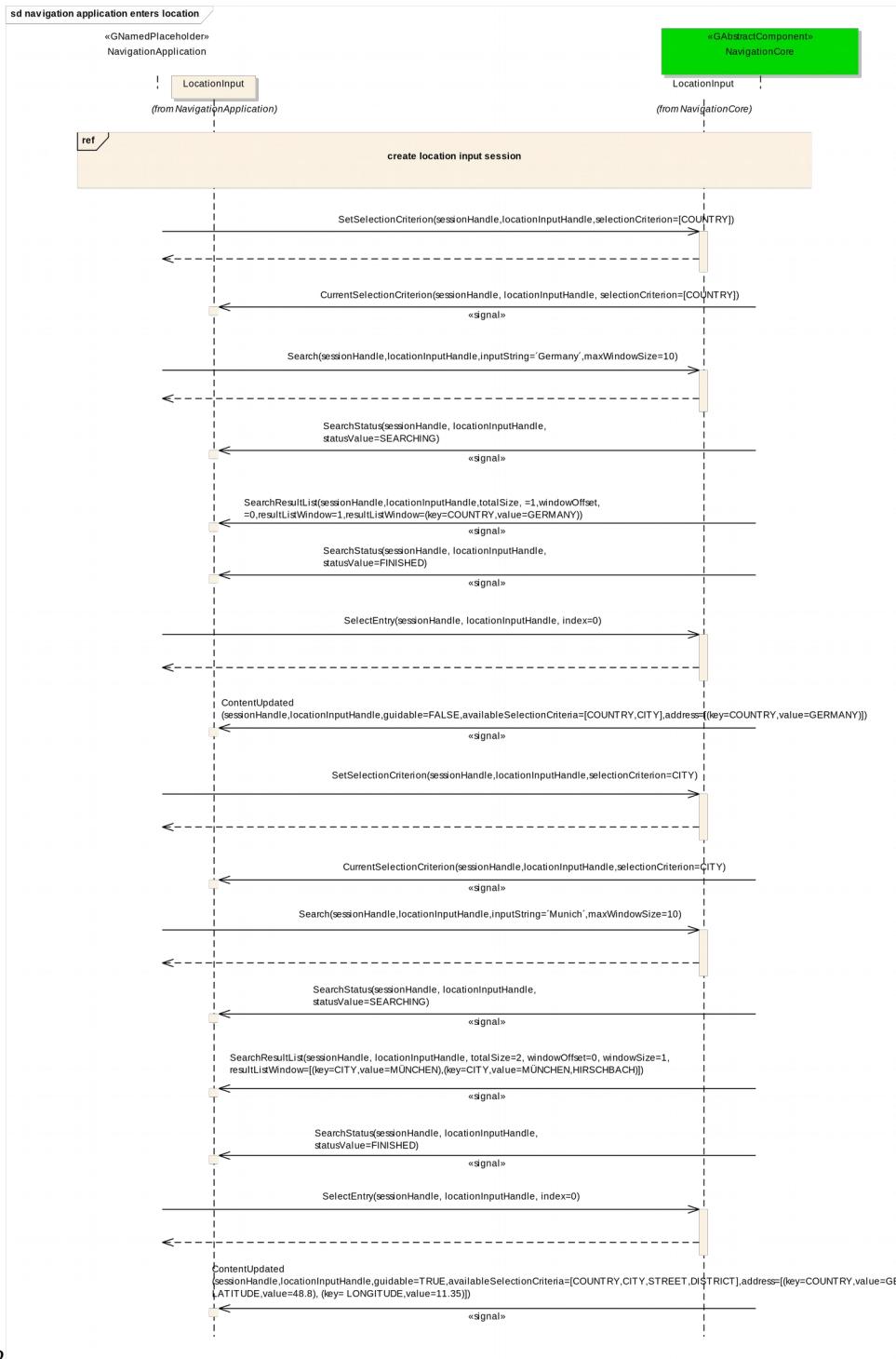
## 25.2.15 navigation application creates location input session



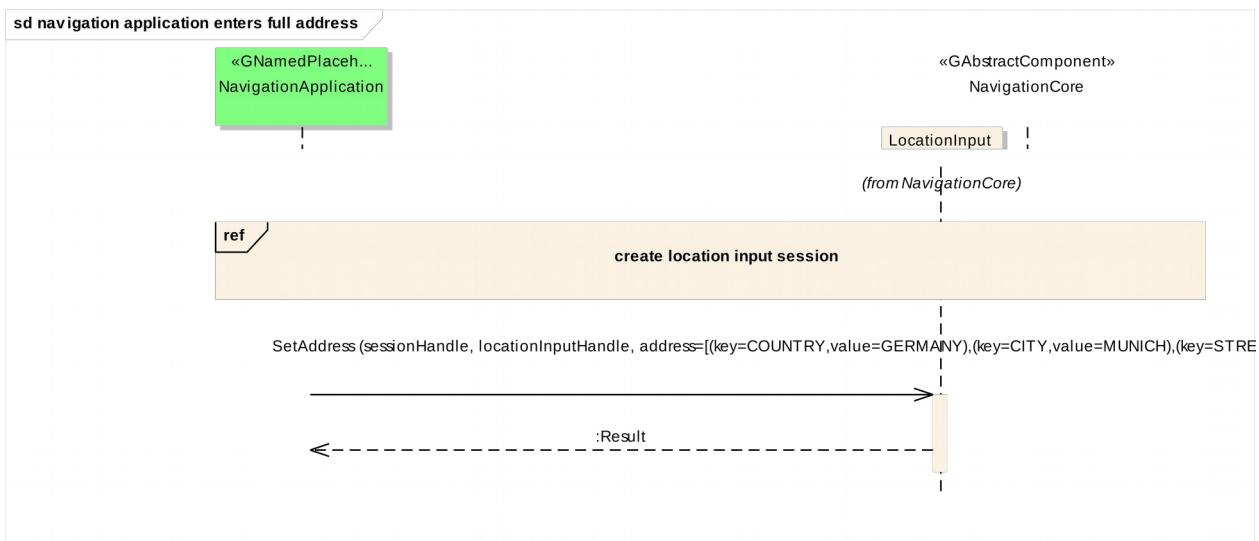
## 25.2.16 navigation application enters location



## 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.