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GENIVI Alliance

3GENIVI Document CS00066

4POIService

5Component Specification

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9GENIVI Alliance

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11Accepted

12**Abstract**:

13This document provides the Component Specification for the POIService

14**Keywords:**

15POI, Search, Navigation

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1 **1. Revision History**

2The following table shows the revision history for this document.

Document Revision History

3

Version	Date	Author	Change		
0.1	24 Oct 2012	Marco Residori	Created empty template		
		(XS Embedded)			
0.2	19 Dec 2012	Marco Residori	Added architecture diagram.		
		(XS Embedded)	Added sequence Diagrams.		
			Updated APIs,		
			Added Cedric Ranson's use case descriptions.		
1.0	19 Dec 2012	Marco Residori	Added architecture diagram.		
		(XS Embedded)	Corrected typos.		
1.1	3 Feb 2017	Philippe	Refine the document for Franca based API		
		COLLIOT			
		(PSA			
		GROUPE)			
1.2	21 Feb 2018	Philippe	Align with new version of the API		
		COLLIOT			
		(Groupe PSA)			

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11 Introduction

2This document describes the API of the POIService component.

31.1 System Overview

4The GENIVI Software Platform is a platform consisting of standardized middleware, application layer interfaces and frame-5works defined or adopted by the GENIVI Alliance.

61.2 Component Overview

7The POIService is a software component of the above mentioned GENIVI Software Platform that 8offers POI search to client applications.

1

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2

12 Terminology

2

Term Description

POI Point of Interest

CAM Content Access Module

3

13 Architecture

23.1 Interfaces

3

POISearch

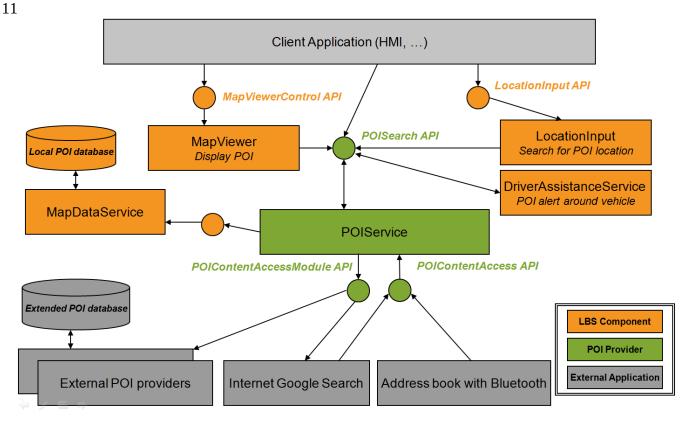
5 6

POIContentAccess

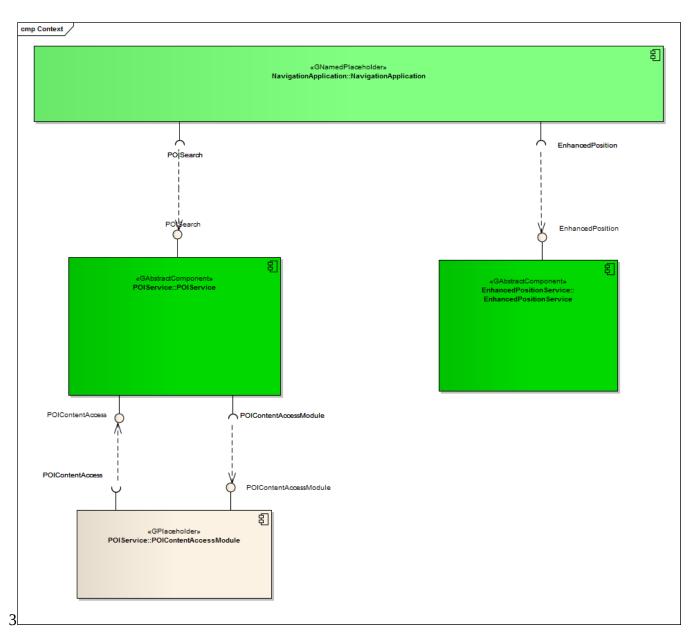
7 8 9

• POIContentAccessModule

10



13.2 Interaction with other Components



14 API

24.1 Git Repository

3The POIService interfaces can be found in the GENIVI Git repository at: 4https://github.com/GENIVI/navigation/tree/master/api/franca/navigation/poiservice

54.2 Use Cases

64.2.1 POI Search

7

84.2.1.1 The HMI displays the list of POI categories

10Description

12The HMI retrieves the root category from the component (should be ALL CATEGORIES).

13The HMI retrieves the children categories of the root category.

14For each child category, the HMI retrieves its children:

15lf there are no children, the HMI retrieves the category details from the component and displays its name as a searchable category. 16lt can also display its visual icon.

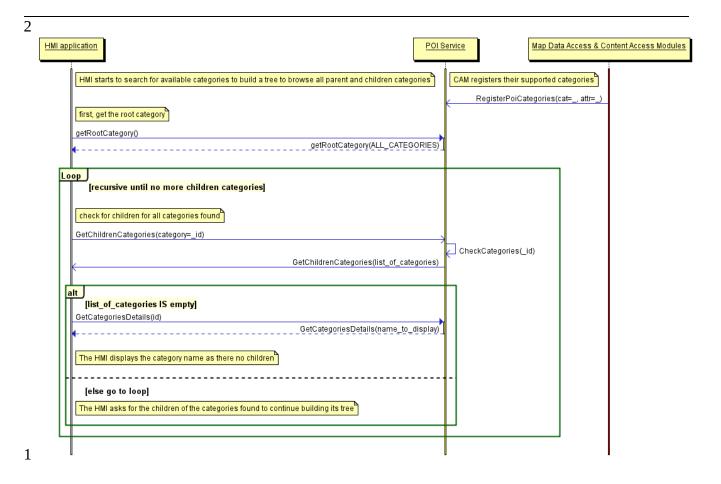
17For each child found, the HMI retrieves the children again and then displays the category name if there are no children.

20 Error Management

21Root category is not available.

22

24Sequence diagram



24.2.1.2 The user searches for a restaurants around his/her position

3

4Description

5

6The HMI retrieves the list of POI categories from the search POI API.

7The HMI retrieves the vehicle position from the enhanced position API.

8The HMI selects restaurant as a category and searches for POI around the vehicle position. It does not provide a search radius.

9The POIService component defines a default radius for the category restaurant.

10The POIService component searches for restaurant around the vehicle position within the local database.

11The POIService component provides the list of restaurants sorted by distance. It also provides basic details.

12The HMI browses the list and ask for detailed information for one of the POI.

13The POIService component gets detailed information from the local database.

14The HMI decides to drive to this restaurant.

15The POIService component provides the location of the restaurant.

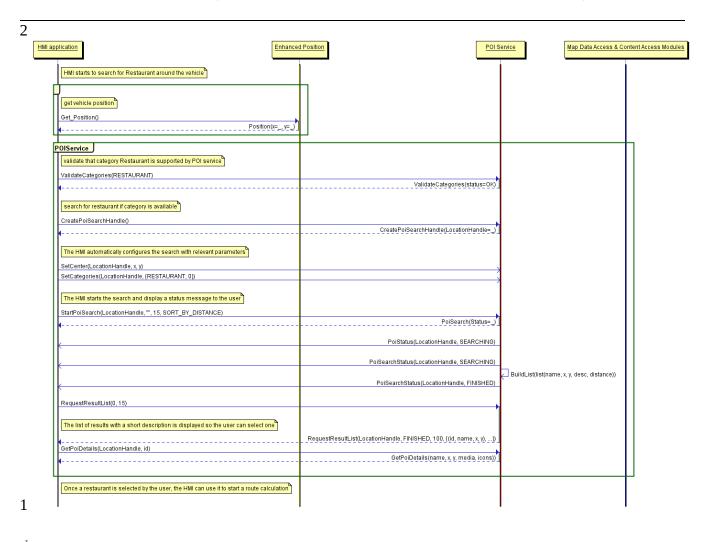
16

17**Error Management**

18If the local database access is down, the component returns an error.

24

21Sequence diagram



The user is running out of fuel and therefore creates a proximity alert 14.2.1.3 around his/her position to receive a sound alert in case a new fuel station is 3 detected

5Preconditions

6The fuel station is a category that is supported by the local database.

8Description

9The HMI configures a new POI proximity alert for fuel station around the vehicle.

10The HMI retrieves the vehicle position and the vehicle speed from the enhanced position API.

11The POIService component defines the search radius of 500 meters.

12The POIService component gets the list of fuel stations around the current position from the local database using map data access API.

13A new list of POI is sent to the HMI with all the fuel station that match the alert configuration.

14The HMI plays a sound when a new (non-empty) list of POI is received.

15As soon as new fuel stations are available or current fuel stations are out the search radius, a new list is provided.

17FError Management

18If the local database access is down, the component returns an error.

2^aSequence diagram Enhanced Position POI Service Map Data Access & Content Access Modules HMI starts to configure for fuel stations alert around vehicle get position Get_Position() Position(x=_, y=_, speed=_) POIService validate that category fuel sattionaurant is supported by POI service ValidateCategories(FUEL_STATION) The HMI automatically configures the alert with relevant parameters SetCenter(LocationHandle, x, y) SetCategories(LocationHandle, {FUEI_STATION, 0}) The HMI starts the alert and display a status message to the user StartPoiProximityAlert(LocationHandle,FUEL_STATION, "", 15, SORT_BY_DISTANCE) StartPoiProximityAlert(Status=_, Error=_ PoiStatus(LocationHandle, SEARCHING) POI_Alert PoiSearchStatus(LocationHandle, SEARCHING) BuildList(list(name, x, y, desc, distance)) ResultListChanged(LocationHandle, 35) The list of results with a short description is displayed so the user can select one RequestResultList(LocationHandle, FINISHED, 100, {(id, name, x, y), ...}) Once a fuel station is selected by the user, the HMI can use it to start a route calculation

14.2.2 POI Content Access

2

The user wants to get a list of car parks with free places around the current position sorted by price

6Preconditions

7A plug-in was already installed in the POI Service component to access an identified online service that provides car park information (price 8 and places left) from the name and coordinates of a car park.

10Description

11The HMI retrieves the vehicle position from the **enhanced position** API.

12The HMI retrieves the list of car parks with free places sorted by price around the position from the search POI API.

13The POIService component get the list of car parks around the current position from the local database using **map data access** API.

14For each car park name and location found, the POI Service uses **POI content access** API to get free places available and the park price 15from the plug-in (described below).

16The POIService component stores the result (all POI found with dynamic content) into the persistent storage to manage the 'connection-17down' error. This content is deleted when it gets too old.

18The POIService component updates each car park attribute with available places and sorts the list by price.

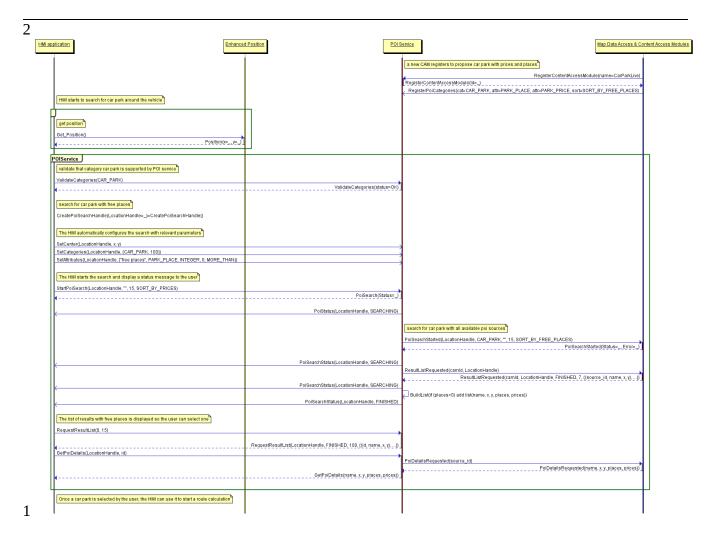
20Error Management

21lf the local database access is down, the component returns an error.

22If the network connection to the online provider is down, the content access module tries to retrieve latest content from its persistent storage 23(if any). If this content is too old (depends on CAM policy), it returns an error.

24

25Sequence diagram



The user wants to display on the map the location of all his/her Facebook friends around the vehicle position (the profile picture is used to mark a friend's position)

4

5Preconditions

6A plug-in was already installed in the POI Service component to access Facebook services and extract the profile picture and the current ad-7dress from a list of friends.

8This plug-in also registered a new POI category called Facebook friends and sub-category of predefined User contact.

9The MapViewer API provides a way to create a custom location on the map with coordinates, name and icons.

11Description

12The HMI retrieves the vehicle position from the enhanced position API.

13The HMI retrieves the list of Facebook friends from the search POI API around the vehicle position.

14POI Service components gets the list of Facebook friends (with photo, name and coordinates) around the current position from the Facebook 15plug-in **POI content access** API.

16The POI Service component stores the result into the persistent storage to manage the 'connection-down' error.

17This content is deleted when it gets too old.

18For each friend, the POI Service uses MapViewer API to update the map with icons.

19

20**Error Management**

21lf the network connection to the online provider is down, the content access module tries to retrieve latest content from its persistent storage 22(if any). If this content is too old (1 hour), it returns an error.

The user wants to navigate to his/her doctor (the one listed in his/her phone contact book) if the office is open

4Preconditions

5A plug-in was already installed in the POI Service component to access a doctor's web site. The plug-in extracts the opening times and the 6doctor's office address.

7A plug-in was already installed in the POI Service component to access the user's smartphone. The plug-in extracts a contact list from a 8group of names (friend, family, doctor, ...).

9This plug-in created a new POI category called My Phone Groups with sub-categories like friend or doctor.

11Description

12The HMI retrieves the doctor's office coordinates and opening times from the user's phone POI group doctor with the **search POI** API. 13The POIService component gets the doctor's office opening time and coordinates from the smartphone contacts plug-in using the **POI con**-14tent access API.

15The HMI validates that the opening times match current time and start a route calculation.

16The POIService component gets the doctor's office coordinates from previously stored data.

17The POIService uses **NavigationCore** API to start a route calculation from vehicle position to doctor's office.

19Error Management

20lf the network connection to the online provider is down, the content access module returns an error.

The user wants to watch a movie. The user requests a list of movies projected in nearby cinemas with description, cinema name and price, all sorted by start time

4Preconditions

5A plug-in was already installed in the POI Service component to access an identified online service that provides cinema information (list of 6movies, opening times, prices and movies information like review and trailer link) from the name and coordinates of a cinema.

8Description

9The HMI retrieves the vehicle position from the **enhanced position** API.

10The HMI retrieves the list of cinema with movies that starts in less than 1 hour around the current position from the **search POI** API. The list 11is sorted by start time.

12The POIService component gets the list of cinemas around the current position from the local database using the **map data access** API. 13For each cinema name and location found, the POI Service uses **POI content access** API to get list of movies available with start time, 14movie information and price from the plug-in (described below).

15The HMI display the list of movies sorted by start time (the sooner the first) with a quick description, a review, the price and the cinema 16name.

17The rear seat HMI downloads a video from movie trailer link and displays it.

18Depending upon the selected film, the POIServicecomponent gets the cinema coordinates from previously stored data.

19The POIService uses NavigationCore API to start a route calculation from vehicle position to the cinema.

21 Error Management

22If the local database access is down, the component returns an error

23If the network connection to the online provider is down, the content access module tries to retrieve latest content from its persistent storage 24(if any). If this content is too old (20 minutes), it returns an error.

The user creates a proximity alert along its route to receive a sound in case of dangerous area

3Preconditions

4A plug-in was already installed in the POI Service component to access an identified online service that provides dangerous area content 5(road conditions, weather, traffic jam, men at work) around a location.

6The dangerous area is a category that is supported by the local database.

7

8Description

9The HMI configures a new POI proximity alert for dangerous events in front of the vehicle.

10The HMI retrieves the vehicle position and speed from the enhanced position API.

11The POI component defines the search radius in front of vehicle position depending on the category and the vehicle speed.

12The POIService component gets the list of dangerous areas around the current position from the local database using the **map data access** 13API.

14The POIService component gets the list of dangerous events around the position from content access module according to its defined radius 15and criteria.

16The POIService component updates local events with dynamic contents if necessary.

17A new list of POI is sent to the HMI with all the events (from local and from CAM) that match the alert configuration.

18The HMI plays a sound when a new (non-empty) list of POI is received.

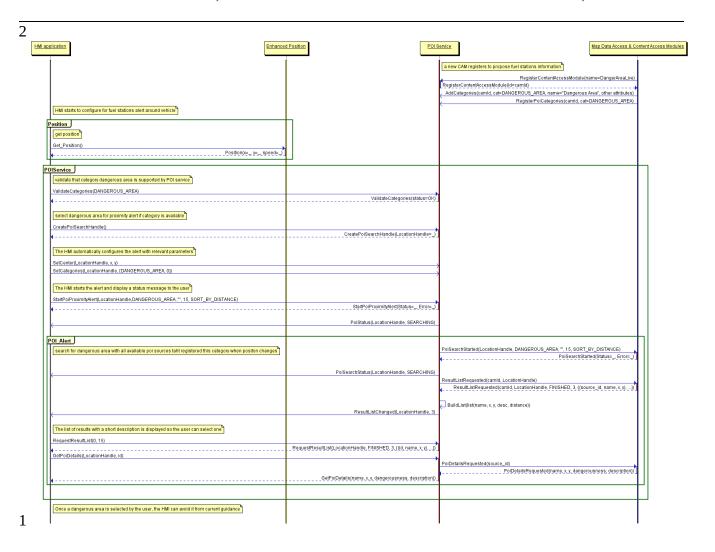
20**Error Management**

21lf the local database access is down, the component returns an error.

22If the network connection to the online provider is down, the content access module tries to retrieve latest content from its persistent storage 23(if any). If this content is too old (more than 2 minutes), it returns an error.

25 Sequence diagram

26



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2

14.3 Interfaces

2The following pages describe the interfaces of the POIService API.

POIService

Generated by Doxygen 1.8.13

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1 Namespace Documentation

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Modules

• genivi

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1.2 org::genivi Module Reference

Modules

- · navigation
- 1.3 org::genivi::navigation Module Reference

Modules

- · module poiservice
- 1.4 org::genivi::navigation::poiservice Module Reference

Classes

- interface POIConfiguration
- interface POIConfiguration_client
- interface POIContentAccess
- interface POIContentAccessModule
- interface POIContentAccessModule_client
- interface POISearch
- · interface POISearch client
- interface POIServiceTypes

2 Class Documentation

2.1 org::genivi::navigation::poiservice::POIServiceTypes::AttributeDetails Struct Reference

Public Attributes

- AttributeID id
- · CategoryID categoryId
- AttributeType type
- AttributeValue value
- OperatorType oper
- Boolean mandatory
- 2.1.1 Member Data Documentation

2.1.1.1 categoryld

CategoryID org::genivi::navigation::poiservice::POIServiceTypes::AttributeDetails::categoryId

2.1.1.2 id AttributeID org::genivi::navigation::poiservice::POIServiceTypes::AttributeDetails::id 2.1.1.3 mandatory Boolean org::genivi::navigation::poiservice::POIServiceTypes::AttributeDetails::mandatory 2.1.1.4 oper OperatorType org::genivi::navigation::poiservice::POIServiceTypes::AttributeDetails::oper 2.1.1.5 type AttributeType org::genivi::navigation::poiservice::POIServiceTypes::AttributeDetails::type 2.1.1.6 value AttributeValue org::genivi::navigation::poiservice::POIServiceTypes::AttributeDetails::value The documentation for this struct was generated from the following file:

POIServiceTypes.fidl

2.2 org::genivi::navigation::poiservice::POIServiceTypes::AttributeValue Union Reference

Public Attributes

- · Int32 intValue
- String string Value
- · Boolean boolValue

2.2.1 Member Data Documentation

2.2.1.1 boolValue

Boolean org::genivi::navigation::poiservice::POIServiceTypes::AttributeValue::boolValue

4 CONTENTS

2.2.1.2 intValue

Int32 org::genivi::navigation::poiservice::POIServiceTypes::AttributeValue::intValue

2.2.1.3 stringValue

String org::genivi::navigation::poiservice::POIServiceTypes::AttributeValue::stringValue

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

POIServiceTypes.fidl

2.3 org::genivi::navigation::poiservice::POIServiceTypes::CAMCategory Struct Reference

Public Attributes

- · Details details
- CategoryAttribute [] attributeList
- CategorySortOption [] sortOptions

2.3.1 Member Data Documentation

2.3.1.1 attributeList

CategoryAttribute [] org::genivi::navigation::poiservice::POIServiceTypes::CAMCategory←
::attributeList

2.3.1.2 details

Details org::genivi::navigation::poiservice::POIServiceTypes::CAMCategory::details

2.3.1.3 sortOptions

CategorySortOption [] org::genivi::navigation::poiservice::POIServiceTypes::CAMCategory←
::sortOptions

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

POIServiceTypes.fidl

2.4 org::genivi::navigation::poiservice::POIServiceTypes::CAMCategoryUpdate Struct Reference

- · CategoryID id
- · CategoryAttribute [] attributeList
- CategorySortOption [] sortOptions

2.4.1 Member Data Documentation

2.4.1.1 attributeList

CategoryAttribute [] org::genivi::navigation::poiservice::POIServiceTypes::CAMCategory←
Update::attributeList

2.4.1.2 id

CategoryID org::genivi::navigation::poiservice::POIServiceTypes::CAMCategoryUpdate::id

2.4.1.3 sortOptions

 $\label{local_continuous_continuous_continuous} \textbf{CategorySortOption} \ [\] \ \text{org::genivi::navigation::poiservice::POIServiceTypes::CAMCategory} \\ \textbf{Update::sortOptions} \ [\] \ \text{org::genivi::navigation::poiservice::POIServiceTypes::CAMCategory} \\ \text{Update::sortOptions} \ [\] \ \text{org::genivi::navigation::poiservice::POIServiceTypes::CAMCategory} \\ \text{Update::sortOptions} \ [\] \ \text{org::genivi::navigation::poiservice::poiservice::poiservice::poiserviceTypes::CAMCategory} \\ \text{Update::sortOptions} \ [\] \ \text{org::genivi::navigation::poiservice::poiserviceTypes::CAMCategory} \\ \text{Update::sortOptions} \ [\] \ \text{org::genivi::navigation::poiservice::poiserviceTypes::camcategory} \\ \text{Update::sortOptions} \ [\] \ \text{org::genivi::navigation::poiserviceTypes::camcategory} \\ \text{Org::genivi::navigation::poiserviceTypes::genivi::navigation::poiserviceTypes::poiserviceTypes::genivi::navigation::poiserviceTypes::genivi::navigation::poiserviceTypes::genivi::navigation::poiserviceTypes::genivi::navigation::genivi::navigation::genivi::navigation::genivi::navigation::genivi::navigation::genivi::navigation::genivi::navigation::genivi::navigation::genivi::navigation::genivi::genivi::geniv::genivi::geniv::gen$

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

- POIServiceTypes.fidl
- 2.5 org::genivi::navigation::poiservice::POIServiceTypes::Category Struct Reference

Public Attributes

- · CategoryDetails details
- CategoryAttribute [] attributeList
- CategorySortOption [] sortOptions

2.5.1 Member Data Documentation

6 CONTENTS

2.5.1.1 attributeList

 $\textbf{CategoryAttribute} \ [\] \ org::genivi::navigation::poiservice::POIServiceTypes::Category::attribute \\ \leftarrow List$

2.5.1.2 details

CategoryDetails org::genivi::navigation::poiservice::POIServiceTypes::Category::details

2.5.1.3 sortOptions

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

POIServiceTypes.fidl

2.6 org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndLevel Struct Reference

Public Attributes

- · CategoryID uniqueld
- · Boolean topLevel

2.6.1 Member Data Documentation

2.6.1.1 topLevel

Boolean org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndLevel::topLevel

2.6.1.2 uniqueld

CategoryID org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndLevel::uniqueId

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

POIServiceTypes.fidl

2.7	org::genivi::navigat	ion::poiservice::	POIServiceTy	vpes::Category	AndName St	ruct Reference
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- · CategoryID uniqueld
- String name
- Boolean topLevel

2.7.1 Member Data Documentation

2.7.1.1 name

String org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndName::name

2.7.1.2 topLevel

 ${\tt Boolean \ org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndName::topLevel}$

2.7.1.3 uniqueld

CategoryID org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndName::uniqueId

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

POIServiceTypes.fidl

2.8 org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndRadius Struct Reference

Public Attributes

- · CategoryID id
- UInt32 radius

2.8.1 Member Data Documentation

2.8.1.1 id

CategoryID org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndRadius::id

CONTENTS 2.8.1.2 radius UInt32 org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndRadius::radius The documentation for this struct was generated from the following file: • POIServiceTypes.fidl 2.9 org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndReason Struct Reference **Public Attributes** · CategoryID unique_id • UpdateReason reason 2.9.1 Member Data Documentation 2.9.1.1 reason UpdateReason org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndReason::reason 2.9.1.2 unique_id CategoryID org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndReason::unique_id The documentation for this struct was generated from the following file: · POIServiceTypes.fidl 2.10 org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndStatus Struct Reference **Public Attributes**

- · CategoryID uniqueld
- Boolean status

2.10.1 Member Data Documentation

2.10.1.1 status

Boolean org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndStatus::status

2.10.1.2 uniqueld

CategoryID org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndStatus::uniqueId

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

· POIServiceTypes.fidl

2.11 org::genivi::navigation::poiservice::POIServiceTypes::CategoryAttribute Struct Reference

Public Attributes

- · AttributeID id
- · String name
- AttributeType type
- · Operator [] operators

2.11.1 Member Data Documentation

2.11.1.1 id

AttributeID org::genivi::navigation::poiservice::POIServiceTypes::CategoryAttribute::id

2.11.1.2 name

 ${\tt String \ org::genivi::navigation::poiservice::POIServiceTypes::CategoryAttribute::name}$

2.11.1.3 operators

Operator [] org::genivi::navigation::poiservice::POIServiceTypes::CategoryAttribute::operators

2.11.1.4 type

AttributeType org::genivi::navigation::poiservice::POIServiceTypes::CategoryAttribute::type

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

POIServiceTypes.fidl

10 CONTENTS

2.12 org::genivi::navigation::poiservice::POIServiceTypes::CategoryDetails Struct Reference

Public Attributes

- · CategoryID uniqueld
- · StandardCategory standardCategoryId
- CategoryID [] parentsId
- · Icon icons
- String name
- Boolean topLevel
- · String description
- · Media media

2.12.1 Member Data Documentation

2.12.1.1 description String org::genivi::navigation::poiservice::POIServiceTypes::CategoryDetails::description 2.12.1.2 icons Icon org::genivi::navigation::poiservice::POIServiceTypes::CategoryDetails::icons

2.12.1.3 media

Media org::genivi::navigation::poiservice::POIServiceTypes::CategoryDetails::media

2.12.1.4 name

 ${\tt String \ org::genivi::navigation::poiservice::POIServiceTypes::CategoryDetails::name}$

2.12.1.5 parentsId

 $\texttt{CategoryID} \ [\] \ \texttt{org::genivi::navigation::poiservice::POIServiceTypes::CategoryDetails::parents} \leftarrow \texttt{Id}$

2.12.1.6 standardCategoryld

StandardCategory	$\verb"org::genivi::navigation::poiservice::POIServiceTypes::CategoryDetails::standard \leftarrow \texttt{poiservice} + poiser$
CategoryId	

2.12.1.7 topLevel

Boolean org::genivi::navigation::poiservice::POIServiceTypes::CategoryDetails::topLevel

2.12.1.8 uniqueld

CategoryID org::genivi::navigation::poiservice::POIServiceTypes::CategoryDetails::uniqueId

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

· POIServiceTypes.fidl

2.13 org::genivi::navigation::poiservice::POIServiceTypes::CategorySortOption Struct Reference

Public Attributes

- · CategoryID id
- String name

2.13.1 Member Data Documentation

2.13.1.1 id

CategoryID org::genivi::navigation::poiservice::POIServiceTypes::CategorySortOption::id

2.13.1.2 name

String org::genivi::navigation::poiservice::POIServiceTypes::CategorySortOption::name

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

POIServiceTypes.fidl

12 CONTENTS

2.14 org::genivi::navigation::poiservice::POIServiceTypes::Details Struct Reference

Public Attributes

- · CategoryID [] parentsId
- · Icon icons
- String name
- String shortDesc
- · Media media

2.14.1 Member Data Documentation

2.14.1.1 icons

Icon org::genivi::navigation::poiservice::POIServiceTypes::Details::icons

2.14.1.2 media

Media org::genivi::navigation::poiservice::POIServiceTypes::Details::media

2.14.1.3 name

String org::genivi::navigation::poiservice::POIServiceTypes::Details::name

2.14.1.4 parentsld

CategoryID [] org::genivi::navigation::poiservice::POIServiceTypes::Details::parentsId

2.14.1.5 shortDesc

String org::genivi::navigation::poiservice::POIServiceTypes::Details::shortDesc

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

• POIServiceTypes.fidl

2.15 org::genivi::navigation::poiservice::POIServiceTypes::lcon Union Reference

Public Attributes

- ResourceID [] id
- String url

2.15.1 Member Data Documentation

```
2.15.1.1 id

ResourceID [ ] org::genivi::navigation::poiservice::POIServiceTypes::Icon::id

2.15.1.2 url
```

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

String org::genivi::navigation::poiservice::POIServiceTypes::Icon::url

The documentation for this union was generated from the following the

• POIServiceTypes.fidl

2.16 org::genivi::navigation::poiservice::POIServiceTypes::Media Union Reference

Public Attributes

- · ResourceID [] id
- String url

2.16.1 Member Data Documentation

```
2.16.1.1 id
```

```
ResourceID [ ] org::genivi::navigation::poiservice::POIServiceTypes::Media::id
```

2.16.1.2 url

String org::genivi::navigation::poiservice::POIServiceTypes::Media::url

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

POIServiceTypes.fidl

2.17 org::genivi::navigation::poiservice::POIServiceTypes::Operator Struct Reference

Public Attributes

- OperatorType type
- String name
- · AttributeValue value

2.17.1	Member	Data	Documentation	nc

2.17.1.1 name

String org::genivi::navigation::poiservice::POIServiceTypes::Operator::name

2.17.1.2 type

OperatorType org::genivi::navigation::poiservice::POIServiceTypes::Operator::type

2.17.1.3 value

AttributeValue org::genivi::navigation::poiservice::POIServiceTypes::Operator::value

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

POIServiceTypes.fidl

2.18 org::genivi::navigation::poiservice::POIServiceTypes::PoiAddedDetails Struct Reference

Public Attributes

- String name
- Coordinate3D location
- PoiAttribute [] attributeList

2.18.1 Member Data Documentation

2.18.1.1 attributeList

PoiAttribute [] org::genivi::navigation::poiservice::POIServiceTypes::PoiAddedDetails::attribute← List

2.18.1.2 location

Coordinate3D org::genivi::navigation::poiservice::POIServiceTypes::PoiAddedDetails::location

2.18.1.3 name

String org::genivi::navigation::poiservice::POIServiceTypes::PoiAddedDetails::name

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

POIServiceTypes.fidl

2.19 org::genivi::navigation::poiservice::POIServiceTypes::PoiAttribute Struct Reference

Public Attributes

- · AttributeID id
- AttributeType type
- · AttributeValue value

2.19.1 Member Data Documentation

2.19.1.1 id

AttributeID org::genivi::navigation::poiservice::POIServiceTypes::PoiAttribute::id

2.19.1.2 type

AttributeType org::genivi::navigation::poiservice::POIServiceTypes::PoiAttribute::type

2.19.1.3 value

AttributeValue org::genivi::navigation::poiservice::POIServiceTypes::PoiAttribute::value

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

· POIServiceTypes.fidl

2.20 org::genivi::navigation::poiservice::POIServiceTypes::PoiCAMDetails Struct Reference

Public Attributes

- POI_ID sourceId
- · String name
- · CategoryID category
- Coordinate3D location
- UInt16 distance
- PoiAttribute [] attributeList

2.20.1 Member Data Documentation

```
2.20.1.1 attributeList
```

PoiAttribute [] org::genivi::navigation::poiservice::POIServiceTypes::PoiCAMDetails::attribute← List

2.20.1.2 category

CategoryID org:: genivi:: navigation:: poiservice:: POIServiceTypes:: PoiCAMDetails:: category

2.20.1.3 distance

UInt16 org::genivi::navigation::poiservice::POIServiceTypes::PoiCAMDetails::distance

2.20.1.4 location

Coordinate3D org::genivi::navigation::poiservice::POIServiceTypes::PoiCAMDetails::location

2.20.1.5 name

String org::genivi::navigation::poiservice::POIServiceTypes::PoiCAMDetails::name

2.20.1.6 sourceld

POI_ID org::genivi::navigation::poiservice::POIServiceTypes::PoiCAMDetails::sourceId

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

POIServiceTypes.fidl

2.21 org::genivi::navigation::poiservice::POIConfiguration Interface Reference

Public Types

```
• enum UnitsOfMeasurementAttribute { INVALID = 0, LENGTH = 49 }
```

```
enum UnitsOfMeasurementValue {
    METER = 50, MILE = 51, KM = 52, YARD = 53,
    FOOT = 54 }
enum Units {
    METER = 50, MILE = 51, KM = 52, YARD = 53,
```

FOOT = 54 }

- enum TimeFormat { INVALID = 0, TWELVEH = 1, TWENTYFOURH = 2 }
 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 unitsOfMeasurementList)
- void getUnitsOfMeasurement (out UnitsOfMeasurement unitsOfMeasurementList)
- void getSupportedUnitsOfMeasurement (out UnitsOfMeasurementList unitsOfMeasurementList)

Public Attributes

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

2.21.1 Detailed Description

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

2.21.2 Member Typedef Documentation

2.21.2.1 UnitsOfMeasurementListValue

 $\label{typedef} \begin{tabular}{ll} typedef UnitsOfMeasurementValue [] org::genivi::navigation::poiservice::POIConfiguration:: \leftarrow UnitsOfMeasurementListValue $$ $ \end{tabular} .$

2.21.3 Member Enumeration Documentation

2.21.3.1 CoordinatesFormat

enum org::genivi::navigation::poiservice::POIConfiguration::CoordinatesFormat

INVALID	
DEGREES	
MINUTES	
SECONDS	

2.21.3.2 TimeFormat

enum org::genivi::navigation::poiservice::POIConfiguration::TimeFormat

Enumerator

INVALID	
TWELVEH	
TWENTYFOURH	

2.21.3.3 Units

enum org::genivi::navigation::poiservice::POIConfiguration::Units

Enumerator

METER	
MILE	
KM	
YARD	
FOOT	

2.21.3.4 UnitsOfMeasurementAttribute

enum org::genivi::navigation::poiservice::POIConfiguration::UnitsOfMeasurementAttribute

Enumerator

INVALID LENGTH

2.21.3.5 UnitsOfMeasurementValue

enum org::genivi::navigation::poiservice::POIConfiguration::UnitsOfMeasurementValue

METER	
MILE	
KM	
YARD	
FOOT	

2.21.4 Member Function Documentation

```
2.21.4.1 getCoordinatesFormat()
void org::genivi::navigation::poiservice::POIConfiguration::getCoordinatesFormat (
              out CoordinatesFormat coordinatesFormat )
#comment: Get the coordinates format.
2.21.4.2 getLocale()
void org::genivi::navigation::poiservice::POIConfiguration::getLocale (
             out String languageCode,
             out String countryCode,
              out String scriptCode )
#comment : Get the current language set .
2.21.4.3 getSupportedCoordinatesFormat()
void org::genivi::navigation::poiservice::POIConfiguration::getSupportedCoordinatesFormat (
              out CoordinatesFormat coordinatesFormatList )
#comment: Get the supported set of coordinates format.
2.21.4.4 getSupportedLocales()
void org::genivi::navigation::poiservice::POIConfiguration::getSupportedLocales (
             out Locale localeList )
#comment : Get the supported set of locales .
2.21.4.5 getSupportedTimeFormats()
\verb|void| \verb|org::genivi::navigation::poiservice::POIConfiguration::getSupportedTimeFormats| (
             out TimeFormat timeFormatList )
#comment: Get the supported set of time format.
2.21.4.6 getSupportedUnitsOfMeasurement()
void org::genivi::navigation::poiservice::POIConfiguration::getSupportedUnitsOfMeasurement (
              out UnitsOfMeasurementList unitsOfMeasurementList )
#comment : Get the supported set of units of measurement .
2.21.4.7 getTimeFormat()
\verb|void org::genivi::navigation::poiservice::POIConfiguration::getTimeFormat|| (
             out TimeFormat format )
#comment: Get the current time format.
```

```
2.21.4.8 getUnitsOfMeasurement()
```

2.21.4.9 getVersion()

#comment: This method returns the API version.

2.21.4.10 setCoordinatesFormat()

#comment : Set the coordinates format.

2.21.4.11 setLocale()

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

2.21.4.12 setTimeFormat()

#comment: Set the time format.

2.21.4.13 setUnitsOfMeasurement()

```
\label{thm:poiservice::POIConfiguration::setUnitsOfMeasurement ( in UnitsOfMeasurement \ unitsOfMeasurement List )
```

#comment : Set the units of measurement .

2.21.5 Member Data Documentation

2.21.5.1 UnitsOfMeasurementAttribute [1/2]

map_UnitsOfMeasurement org::genivi::navigation::poiservice::POIConfiguration::UnitsOfMeasurement←
Attribute =>UnitsOfMeasurementValue

2.21.5.2 UnitsOfMeasurementAttribute [2/2]

 $\label{lem:map_UnitsOfMeasurementList} $$ \arg::genivi::navigation::poiservice::POIConfiguration::UnitsOf $\longleftrightarrow $$ \argument = \argument =$

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

· POIConfiguration.fidl

2.22 org::genivi::navigation::poiservice::POIConfiguration_client Interface Reference

Public Member Functions

· void configurationChanged (in Settings changedSettings)

2.22.1 Member Function Documentation

2.22.1.1 configurationChanged()

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:

· POIConfiguration.fidl

2.23 org::genivi::navigation::poiservice::POIContentAccess Interface Reference

Public Member Functions

- · void registerContentAccessModule (in String moduleName, out ContentAccessModuleID camId)
- void unRegisterContentAccessModule (in ContentAccessModuleID camId)
- void registerPoiCategories (in ContentAccessModuleID camId, in CategoryID poiCategories)
- void updateCategories (in ContentAccessModuleID camId, in CAMCategoryUpdate poiCategories)
- void addCategories (in ContentAccessModuleID camId, in CAMCategory poiCategories, out CategoryID poiCategoriesId)
- void removeCategories (in ContentAccessModuleID camId, in CategoryID poiCategories)

2.23.1 Detailed Description

#comment: This interface offers a set of common methods for Content Access Modules (CAM). The CAM provide and update POI and categories information from remote sources to the POIService modules.

2.23.2 Member Function Documentation

2.23.2.1 addCategories()

#comment: Add new categories to the POI service component. The CAM provides for each categories the name, the parent categories, the top level attribute, the list of attributes, the icons,

2.23.2.2 registerContentAccessModule()

#comment: Register to the POI provider module When the CAM registers, it provides a name and then get a unique id. This id must be used everytime the CAM communicates with the POI service component. After the registration is done, the CAM can start to update POI categories and POI attributes as well as registers POI categories to search for.

2.23.2.3 registerPoiCategories()

#comment: Register to the POI provider module the categories you can search for POI. The categories could be predifined one or customized ones. In order to register a customized category, you might need to create it before and add it to the POI service component.

2.23.2.4 removeCategories()

#comment: Remove categories from the POI service component. It could be a predifined or a customed one. Depending on the local database write policy, the CAM might only not be able to remove some categories.

2.23.2.5 unRegisterContentAccessModule()

#comment : Remove CAM from POI provider module.

2.23.2.6 updateCategories()

#comment: Update categories in the POI service component. It could be a predifined or a customed one. The CAM provides for each categories the list of attributes (mandatories like name or optional) it wants to update. Depending on the local database write policy, the CAM might only be able to update customized attributes for a category and not the predefined ones so some update could be rejected.

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

· POIContentAccess.fidl

2.24 org::genivi::navigation::poiservice::POIContentAccessModule Interface Reference

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 getAvailableCategories (out CategoryAndName categories)
- void getRootCategory (out CategoryID category)
- void getChildrenCategories (in CategoryID category, out CategoryAndLevel categories)
- void getParentCategories (in CategoryID category, out CategoryAndLevel categories)
- void createCategory (in CAMCategory category, out CategoryID unique id)
- void removeCategories (in CategoryID categories)
- void addPOIs (in CategoryID unique_id, in PoiAddedDetails poiList)
- void removePOIs (in POI_ID ids)
- void poiSearchStarted (in Handle poiSearchHandle, in UInt16 maxSize, in Coordinate3D location, in CategoryAndRadius poiCategories, in AttributeDetails poiAttributes, in String inputString, in SortOption sort← Option)
- void poiSearchCanceled (in Handle poiSearchHandle)
- void resultListRequested (in ContentAccessModuleID camId, in Handle poiSearchHandle, in AttributeID attributeList, out SearchStatusState statusValue, out UInt16 resultListSize, out PoiCAMDetails resultList)
- void poiDetailsRequested (in POI ID source id, out SearchResultDetails results)

2.24.1 Detailed Description

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

2.24.2 Member Function Documentation

2.24.2.1 addPOIs()

#comment: Adds a list of POIs to a category. Because of required time to add it to the database, a signal is emitted when the update is done, that gives the id of the elements added

2.24.2.2 createCategory()

#comment : Creates a category by name and return an unique id.

2.24.2.3 getAvailableCategories()

```
\label{lem:poiservice::POIContentAccessModule::getAvailableCategories ( \\ out CategoryAndName \ categories )
```

#comment: This method retrieves the list od POI categories available (pre-defined and custom).

2.24.2.4 getChildrenCategories()

#comment: Get the children categories id and type (top level) from the a parent unique id.

2.24.2.5 getLocale()

#comment: Get the current language set for the search by poi provider module.

2.24.2.6 getParentCategories()

#comment : Get the parent categories id and type (top level) from the a unique id.

2.24.2.7 getRootCategory()

#comment : Get the root category id. That would be ALL_CATEGORIES.

2.24.2.8 getSupportedLocales()

```
\label{locales} \begin{tabular}{ll} void org::genivi::navigation::poiservice::POIContentAccessModule::getSupportedLocales ( \\ out Locale $localeList$ ) \end{tabular}
```

#comment: Get the supported set of locales for the search by poi provider module.

2.24.2.9 getVersion()

#comment: This method returns the API version implemented by the content access module.

2.24.2.10 poiDetailsRequested()

#comment: This method retrieves the details associated to one or more POI. It contains the name, the parent categories, the list of attributes, the icons,

2.24.2.11 poiSearchCanceled()

#comment: This method cancels the search for the current id.

2.24.2.12 poiSearchStarted()

#comment: This method is sent by the POI service component to inform all the CAM that a new POI search was started. It provides all the relevant search parameters. Of course the CAM will only be aware of the search if it registers one of the search categories.

2.24.2.13 removeCategories()

```
\label{lem:poiservice::POIContentAccessModule::removeCategories ( \\ in CategoryID \textit{categories} )
```

#comment: Removes a list of categories. Because of required time to remove it from the database, a signal is emitted when the deletion is done.

2.24.2.14 removePOIs()

#comment : Removes a list of POIs to a category. Because of required time to remove it from the database, a signal is emitted when the update is done.

2.24.2.15 resultListRequested()

#comment: This method provides the poi results list found by the CAM. As the POI unique id is managed by the POI component, the CAM only provides the POI name, the category and coordinates as well as all the relevant detailed information.

2.24.2.16 setLocale()

#comment: Set the current language set for the search by poi provider module. The language defines the poi and categories name and details language. If the language is not supported, the default details will be returned in the native language.

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

• POIContentAccessModule.fidl

2.25 org::genivi::navigation::poiservice::POIContentAccessModule_client Interface Reference

Public Member Functions

- void configurationChanged (in Settings changedSettings)
- · void categoriesRemoved (in CategoryID categories)
- void poiAdded (in POI_ID pois)
- void poiRemoved (in POI ID pois)
- void searchStatusChanged (in Handle poiSearchHandle, in SearchStatusState statusValue, in POI_ID pois)

2.25.1 Member Function Documentation

2.25.1.1 categoriesRemoved()

broadcast #comment : categoriesRemoved = This signal is emitted when a list of categories and associated content has been removed from the database.

2.25.1.2 configurationChanged()

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

2.25.1.3 poiAdded()

broadcast #comment : poiAdded = This signal is emitted when a list of POIs and associated content has been added to the database. It returns the ids.

2.25.1.4 poiRemoved()

```
\label{local_pois} \begin{tabular}{ll} \begi
```

broadcast #comment: poiRemoved = This signal is emitted when a list of POIs and associated content has been removed from the database.

2.25.1.5 searchStatusChanged()

broadcast #comment : SearchStatusChanged = This signal updates the search or proximity alert status of the specified handle.

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

• POIContentAccessModule.fidl

2.26 org::genivi::navigation::poiservice::POIServiceTypes::PoiDetails Struct Reference

Public Attributes

- POI ID id
- String name
- · Coordinate3D location

2.26.1 Member Data Documentation

2.26.1.1 id

POI_ID org::genivi::navigation::poiservice::POIServiceTypes::PoiDetails::id

2.26.1.2 location

Coordinate3D org::genivi::navigation::poiservice::POIServiceTypes::PoiDetails::location

2.26.1.3 name

String org::genivi::navigation::poiservice::POIServiceTypes::PoiDetails::name

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

POIServiceTypes.fidl

2.27 org::genivi::navigation::poiservice::POISearch Interface Reference

Public Member Functions

- void getVersion (out Version version)
- void validateCategories (in CategoryID categories, out CategoryAndStatus results)
- void getAvailableCategories (out CategoryAndName categories)
- void getRootCategory (out CategoryID category)
- void getChildrenCategories (in CategoryID category, out CategoryAndLevel categories)
- void getParentCategories (in CategoryID category, out CategoryAndLevel categories)
- void getCategoriesWithStandardCategoryId (in StandardCategory standardCategoryId, out CategoryID categories)
- void getCategoriesDetails (in CategoryID categories, out Category results)
- void createPoiSearchHandle (out Handle poiSearchHandle)
- void deletePoiSearchHandle (in Handle poiSearchHandle)
- void setCenter (in Handle poiSearchHandle, in Coordinate3D location)
- void setRouteHandle (in Handle poiSearchHandle, in Handle sessionHandle, in Handle routeHandle, in U← Int32 startSearchOffset, in UInt32 endSearchOffset)
- void setCategories (in Handle poiSearchHandle, in CategoryAndRadius poiCategories)
- void setAttributes (in Handle poiSearchHandle, in AttributeDetails poiAttributes)
- · void startPoiSearch (in Handle poiSearchHandle, in String inputString, in SortOption sortOption)
- void cancelPoiSearch (in Handle poiSearchHandle)
- void startPoiProximityAlert (in Handle poiSearchHandle, in String inputString, in SortOption sortOption)
- void cancelPoiProximityAlert (in Handle poiSearchHandle)
- void requestResultList (in Handle poiSearchHandle, in UInt16 offset, in UInt16 maxWindowSize, in Attribute
 ID attributeList, out SearchStatusState statusValue, out UInt16 resultListSize, out SearchResult resultList
 Window)
- void getPoiDetails (in POI_ID id, out SearchResultDetails results)

2.27.1 Detailed Description

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

2.27.2 Member Function Documentation

2.27.2.1 cancelPoiProximityAlert()

#comment: This method cancels the search for the current session.

2.27.2.2 cancelPoiSearch()

```
\begin{tabular}{ll} void org::genivi::navigation::poiservice::POISearch::cancelPoiSearch ( \\ in Handle $poiSearchHandle \end{tabular}) \end{tabular}
```

#comment: This method cancels the search for the current session.

2.27.2.3 createPoiSearchHandle()

#comment: This method creates a new search input and retrieves a handle.

2.27.2.4 deletePoiSearchHandle()

#comment: This method deletes a search input and its associated resources.

2.27.2.5 getAvailableCategories()

#comment : This method retrieves the list of POI categories available (pre-defined and custom).

2.27.2.6 getCategoriesDetails()

#comment : This method retrieves the details associated to one or more POI categories. It contains the name, the parent categories, the top level attribute, the list of attributes, the icons,

2.27.2.7 getCategoriesWithStandardCategoryId()

#comment : Get the categories that are marked with the given standard category.

2.27.2.8 getChildrenCategories()

#comment: Get the children categories id and type (top level) from the a parent unique id.

2.27.2.9 getParentCategories()

#comment: Get the parent categories id and type (top level) from the a unique id.

2.27.2.10 getPoiDetails()

#comment : This method retrieves the details associated to one or more POI. It contains the name, the parent categories, the list of attributes, the icons,

2.27.2.11 getRootCategory()

#comment : Get the root category id. That would be ALL_CATEGORIES.

2.27.2.12 getVersion()

#comment: This method returns the API version implemented by the content access module.

2.27.2.13 requestResultList()

#comment: This method gets the poi result list (e.g. after a Search/Scroll call).

2.27.2.14 setAttributes()

#comment: This method set POI attributes (optional) for the current search input and the corresponding result-lists for the current session An attribute is attached to a category.

2.27.2.15 setCategories()

#comment: This method sets the POI categories for the current search input and the corresponding result-lists for the current session.

2.27.2.16 setCenter()

#comment : This method sets the location to start the search around. If a route handle was defined before, it will be replaced by this location.

2.27.2.17 setRouteHandle()

#comment: This method allows to start a POI search along a guided route. The route handle must be valid or the POI search will failed. If a search location was defined before, it will be replaced by the route.

2.27.2.18 startPoiProximityAlert()

#comment: This method starts to check for POI aound vehicle according to the criteria defined with the unique handle. By default, it will search for POI around vehicle position with default radius defined for each categories. If a route handle was defined, it will search along the route with default categorie's radius.

2.27.2.19 startPoiSearch()

#comment: This method sends the search input for the search handle. The search will start with the either the location or the route handle. If no position or route handle were configured, the search will use the vehicle position are center location.

2.27.2.20 validateCategories()

#comment : This method allows the application to validate that POI categories are supported by the POI component and the Content access modules.

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

· POISearch.fidl

2.28 org::genivi::navigation::poiservice::POISearch_client Interface Reference

Public Member Functions

- void categoriesUpdated (in CategoryAndReason poiCategories)
- void poiStatus (in Handle poiSearchHandle, in SearchStatusState statusValue)
- void resultListChanged (in Handle poiSearchHandle, in UInt16 resultListSize)

2.28.1 Member Function Documentation

2.28.1.1 categoriesUpdated()

broadcast #comment : This signal indicates that one or more POI categories were added, updated or removed.

2.28.1.2 poiStatus()

broadcast #comment : This signal updates the search or proximity alert status of the specified handle.

2.28.1.3 resultListChanged()

broadcast #comment: This signal updates in the poi results list.

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

· POISearch.fidl

2.29 org::genivi::navigation::poiservice::POIServiceTypes Interface Reference

Classes

- · struct AttributeDetails
- union AttributeValue
- struct CAMCategory
- · struct CAMCategoryUpdate
- struct Category
- struct CategoryAndLevel
- struct CategoryAndName
- · struct CategoryAndRadius
- struct CategoryAndReason
- struct CategoryAndStatus
- struct CategoryAttribute
- struct CategoryDetails
- struct CategorySortOption
- struct Details
- union Icon
- union Media
- struct Operator
- struct PoiAddedDetails
- struct PoiAttribute
- struct PoiCAMDetails
- struct PoiDetails
- struct SearchResult
- · struct SearchResultDetails

Public Types

```
    enum CategoryIDSet: BasicEnum {
        AIRPORT = 1, SPORTING = 2, FERRY_TERMINAL = 3, ENTERTAINMENT = 4,
        HOTEL_MOTEL = 5, RESTAURANT = 6, PARKING = 7, FUEL_STATION = 8,
        SERVICE_AREA = 9, CAR_REPAIR_SHOP = 10, CAR_DEALER = 11, CAR_RENTAL_AGENCY = 12,
        MEDICAL = 13, SHOPPING = 14, BUSINESS_AREA = 15, LANDMARK = 16,
        FLASH_RADAR = 17, POI_TRUCK = 18, SANCTUARY = 19, TOLLBOOTH = 20,
        KIOSK = 21, WATER_CLOSET = 22, BANK_AND_FINANCIAL = 23, TRAVEL = 24,
        TOURIST = 25, PUBLIC_BUILDING = 26, RAILWAY_STATION = 27, DESTINATION_FLAG = 204,
        FAVORITE = 205, FAVORITE_HOME = 206, FAVORITE_ADDRESSBOOK = 207, USER_IMPORT = 208,
        USER_CONTACT = 209, MOTORWAY_EXIT = 210, ALL_CATEGORIES = 65535 }
```

```
    enum StandardCategory {

 NOT_STANDARD_CATEGORY, VEHICLE_REPAIR = 1, PETROL_STATION = 2, EVS_CHARGING_ST↔
 ATION = 3.
 CONTROLLED_ACCESS_INTERSECTION = 4, CONTROLLED_ACCESS_ENTRY_EXIT = 5, CONTRO
 LLED ACCESS SMART IC = 6, RENT A CAR = 7,
 CAR WASH = 8, CAR DEALERSHIP = 9, MOTOR CYCLE DEALERSHIP = 10, TRUCK DEALERSHIP =
 PARKING GARAGE = 12, OPEN PARKING = 13, REST AREA = 14, ROAD ASSISTANCE = 15,
 CAMPING = 16, CARAVAN SITE = 17, COACH AND LORRY PARKING = 18, MOTORING ORG OFF ←
 ICE = 19.
 CAR_SHIPPING_TERMINAL = 20, HOTEL_MOTEL = 5, RESTAURANT = 6, FAST_FOOD = 23,
 COFFEE_SHOP = 24, BAR_OR_PUB = 25, CINEMA = 26, MUSEUM = 27,
 THEATRE = 28, LIBRARY = 29, HOSPITAL = 30, PHYSICIAN = 31,
 DENTIST = 32, PHARMACY = 33, VETERINARIAN SERVICE = 34, POLICE STATION = 35,
 POST_OFFICE = 36, CITY_HALL = 37, EMBASSY = 38, COURT_HOUSE = 39,
 GOVERNMENT_OFFICE = 40, COMMUNITY_CENTER = 41, SHOPPING_CENTER = 42, STORE = 43,
 BANK = 44, ATM = 45, CURRENCY EXCHANGE = 46, TOURIST OFFICE = 47,
 TRAVEL AGENCY = 48, TOURIST ATTRACTION = 49, HISTORICAL MONUMENT = 50, NATIONAL ←
 PARK = 51.
 CITY CENTER = 52, HAMLET = 53, ZOO = 54, AMUSEMENT PARK = 55,
 GOING OUT = 56, STADIUM = 57, SPORTS CENTER = 58, RECREATION = 59,
 SKI RESORT = 60, SWIMMING POOL = 61, GOLF COURSE = 62, FERRY TERMINAL = 3,
 MARINA = 64, HARBOUR = 65, BUSINESS_FACILITY = 66, EXHIBITION_CONFERENCE_CENTER = 67,
 RAILWAY STATION = 27, PUBLIC TRANSIT STOP = 69, PARK AND RIDE = 70, AIRPORT = 1,
 AIRLINE ACCESS = 72, TAXI STAND = 73, EMERGENCY CALL STATION = 74, EMERGENCY MED↔
 ICAL SERVICE = 75,
 FIRST_AID_POST = 76, FIRE_BRIGADE = 77, PLACE_OF_WORSHIP = 78, EDUCATION = 79,
 CUSTOMS = 80, FRONTIER_CROSSING = 81, TOLL_LOCATION = 82, PUBLIC_RESTROOM = 83,
 PUBLIC PHONE = 84, KINDERGARTEN = 85, MOUNTAIN PASS SUMMIT = 86, SPEED CAMERA = 87

    enum AttributeType { STRING = 500, INTEGER = 501, COORDINATES = 502, BOOLEAN = 503 }

    enum SearchStatusState: BasicEnum { NOT STARTED = 510, SEARCHING = 511, FINISHED = 512 }

    enum OperatorType: BasicEnum { MORE_THAN = 520, LESS_THAN = 521, EQUAL = 522 }

IBUTE CUSTOM = 563 }

    enum RouteStatus { OFF ROUTE = 600, ON ROUTE = 601, INSIDE CORRIDOR = 602 }

    enum UpdateReason {

 ADDED = 700, REMOVED = 701, ATTR ADDED = 702, ATTR MODIFIED = 703,
 ATTR REMOVED = 704 }

    enum ConfigurationChangedReason { LOCALES }

enum Settings {
 INVALID = 0, UNITS_OF_MEASUREMENT = 48, LOCALE = 37, TIME_FORMAT = 3,
 COORDINATES_FORMAT = 6 }
• typedef UInt64 POI_ID

    typedef UInt32 ResourceID

    typedef UInt32 AttributeID

    typedef UInt8 ContentAccessModuleID
```

2.29.1 Member Typedef Documentation

2.29.1.1 AttributeID

typedef UInt32 org::genivi::navigation::poiservice::POIServiceTypes::AttributeID

2.29.1.2 ContentAccessModuleID

typedef UInt8 org::genivi::navigation::poiservice::POIServiceTypes::ContentAccessModuleID

2.29.1.3 POI_ID

typedef UInt64 org::genivi::navigation::poiservice::POIServiceTypes::POI_ID

2.29.1.4 ResourceID

typedef UInt32 org::genivi::navigation::poiservice::POIServiceTypes::ResourceID

2.29.2 Member Enumeration Documentation

2.29.2.1 AttributeType

enum org::genivi::navigation::poiservice::POIServiceTypes::AttributeType

Enumerator

STRING	
INTEGER	
COORDINATES	
BOOLEAN	

2.29.2.2 CategoryIDSet

 $\verb"enum" org::genivi::navigation::poiservice::POIServiceTypes::CategoryIDSet : BasicEnum" and the poiservice is a single poiservice in the poiservice in the poiservice is a poiservice in the poiservice in the poiservice is a poiservice in the poiservice in the poiservice is a poiservice in the poiservice in the poiservice is a poiservice in the poiservice in the poiservice is a poiservice in the poiservice in the poiservice is a poiservice in the poiservice in the poiservice is a poiservice in the poiservice in the poiservice is a poiservice in the poiservice in the poiservice in the poiservice is a poiservice in the poiservice in th$

AIRPORT	
SPORTING	
FERRY_TERMINAL	
ENTERTAINMENT	
HOTEL_MOTEL	
RESTAURANT	
PARKING	
FUEL_STATION	
SERVICE_AREA	
CAR_REPAIR_SHOP	
CAR DEALER	

Enumerator

CAR_RENTAL_AGENCY	
MEDICAL	
SHOPPING	
BUSINESS_AREA	
LANDMARK	
FLASH_RADAR	
POI_TRUCK	
SANCTUARY	
TOLLBOOTH	
KIOSK	
WATER_CLOSET	
BANK_AND_FINANCIAL	
TRAVEL	
TOURIST	
PUBLIC_BUILDING	
RAILWAY_STATION	
DESTINATION_FLAG	
FAVORITE	
FAVORITE_HOME	
FAVORITE_ADDRESSBOOK	
USER_IMPORT	
USER_CONTACT	
MOTORWAY_EXIT	
ALL_CATEGORIES	

2.29.2.3 ConfigurationChangedReason

 $\verb"enum" org::genivi::navigation::poiservice::POIServiceTypes::ConfigurationChangedReason$

Enumerator

LOCALES

2.29.2.4 OperatorType

enum org::genivi::navigation::poiservice::POIServiceTypes::OperatorType : BasicEnum

MORE_THAN	
LESS_THAN	
EQUAL	

2.29.2.5 RouteStatus

enum org::genivi::navigation::poiservice::POIServiceTypes::RouteStatus

Enumerator

OFF_ROUTE	
ON_ROUTE	
INSIDE_CORRIDOR	

2.29.2.6 SearchStatusState

enum org::genivi::navigation::poiservice::POIServiceTypes::SearchStatusState : BasicEnum

Enumerator

NOT_STARTED	
SEARCHING	
FINISHED	

2.29.2.7 Settings

enum org::genivi::navigation::poiservice::POIServiceTypes::Settings

Enumerator

INVALID	
UNITS_OF_MEASUREMENT	
LOCALE	
TIME_FORMAT	
COORDINATES_FORMAT	

2.29.2.8 SortOption

enum org::genivi::navigation::poiservice::POIServiceTypes::SortOption

SORT_DEFAULT	
SORT_BY_DISTANCE	
SORT_BY_TIME	
ATTRIBUTE_CUSTOM	

2.29.2.9 StandardCategory

enum org::genivi::navigation::poiservice::POIServiceTypes::StandardCategory

NOT STANDARD CATEGORY	
VEHICLE REPAIR	
PETROL STATION	
EVS CHARGING STATION	
CONTROLLED ACCESS INTERSECTION	
CONTROLLED ACCESS ENTRY EXIT	
CONTROLLED ACCESS SMART IC	
RENT A CAR	
CAR WASH	
CAR DEALERSHIP	
MOTOR CYCLE DEALERSHIP	
TRUCK DEALERSHIP	
PARKING GARAGE	
OPEN PARKING	
REST AREA	
ROAD ASSISTANCE	
CAMPING	
CARAVAN SITE	
COACH AND LORRY PARKING	
MOTORING ORG OFFICE	
CAR SHIPPING TERMINAL	
HOTEL MOTEL	
RESTAURANT	
FAST FOOD	
COFFEE SHOP	
BAR OR PUB	
CINEMA	
MUSEUM	
THEATRE	
LIBRARY	
HOSPITAL	
PHYSICIAN	
DENTIST	
PHARMACY	
VETERINARIAN SERVICE	
POLICE STATION	
POST OFFICE	
CITY HALL	
EMBASSY	
COURT HOUSE	
GOVERNMENT OFFICE	
COMMUNITY CENTER	
SHOPPING CENTER	
STORE	
3.3112	

Enumerator

BANK	
ATM	
CURRENCY_EXCHANGE	
TOURIST_OFFICE	
TRAVEL_AGENCY	
TOURIST_ATTRACTION	
HISTORICAL_MONUMENT	
NATIONAL_PARK	
CITY_CENTER	
HAMLET	
ZOO	
AMUSEMENT_PARK	
GOING_OUT	
STADIUM	
SPORTS_CENTER	
RECREATION	
SKI_RESORT	
SWIMMING_POOL	
GOLF_COURSE	
FERRY_TERMINAL	
MARINA	
HARBOUR	
BUSINESS_FACILITY	
EXHIBITION_CONFERENCE_CENTER	
RAILWAY_STATION	
PUBLIC_TRANSIT_STOP	
PARK_AND_RIDE	
AIRPORT	
AIRLINE_ACCESS	
TAXI_STAND	
EMERGENCY_CALL_STATION	
EMERGENCY_MEDICAL_SERVICE	
FIRST_AID_POST	
FIRE_BRIGADE	
PLACE OF WORSHIP	
EDUCATION	
CUSTOMS	
FRONTIER_CROSSING	
TOLL LOCATION	
PUBLIC RESTROOM	
PUBLIC PHONE	
KINDERGARTEN	
MOUNTAIN PASS SUMMIT	
SPEED CAMERA	
3. 225_3.1WE107	

2.29.2.10 UpdateReason

enum org::genivi::navigation::poiservice::POIServiceTypes::UpdateReason

Enumerator

ADDED	
REMOVED	
ATTR_ADDED	
ATTR_MODIFIED	
ATTR_REMOVED	

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

POIServiceTypes.fidl

2.30 org::genivi::navigation::poiservice::POIServiceTypes::SearchResult Struct Reference

Public Attributes

- POI ID id
- UInt32 distance
- · RouteStatus routeStatus
- PoiAttribute [] attributeList

2.30.1 Member Data Documentation

2.30.1.1 attributeList

PoiAttribute [] org::genivi::navigation::poiservice::POIServiceTypes::SearchResult::attribute← List

2.30.1.2 distance

UInt32 org::genivi::navigation::poiservice::POIServiceTypes::SearchResult::distance

2.30.1.3 id

POI_ID org::genivi::navigation::poiservice::POIServiceTypes::SearchResult::id

2.30.1.4 routeStatus

RouteStatus org::genivi::navigation::poiservice::POIServiceTypes::SearchResult::routeStatus

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

POIServiceTypes.fidl

2.31 org::genivi::navigation::poiservice::POIServiceTypes::SearchResultDetails Struct Reference

Public Attributes

- · PoiDetails details
- CategoryID [] categories
- PoiAttribute [] attributeList

2.31.1 Member Data Documentation

2.31.1.1 attributeList

```
PoiAttribute [ ] org::genivi::navigation::poiservice::POIServiceTypes::SearchResultDetails←::attributeList
```

2.31.1.2 categories

```
 \begin{tabular}{ll} CategoryID [ ] org::genivi::navigation::poiservice::POIServiceTypes::SearchResultDetails $\leftarrow$ ::categories $\end{tabular}
```

2.31.1.3 details

PoiDetails org::genivi::navigation::poiservice::POIServiceTypes::SearchResultDetails::details

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

· POIServiceTypes.fidl

3 File Documentation

3.1 POIConfiguration.fidl File Reference

Classes

- interface org::genivi::navigation::poiservice::POIConfiguration
- $\bullet \ \ interface \ org::genivi::navigation::poiservice::POIConfiguration_client$

Modules

• module org::genivi::navigation::poiservice

3.2 POIContentAccess.fidl File Reference

Classes

• interface org::genivi::navigation::poiservice::POIContentAccess

Modules

· module org::genivi::navigation::poiservice

3.3 POIContentAccessModule.fidl File Reference

Classes

- interface org::genivi::navigation::poiservice::POIContentAccessModule
- interface org::genivi::navigation::poiservice::POIContentAccessModule_client

Modules

· module org::genivi::navigation::poiservice

3.4 POISearch.fidl File Reference

Classes

- · interface org::genivi::navigation::poiservice::POISearch
- interface org::genivi::navigation::poiservice::POISearch_client

Modules

• module org::genivi::navigation::poiservice

3.5 POIServiceTypes.fidl File Reference

Classes

- interface org::genivi::navigation::poiservice::POIServiceTypes
- union org::genivi::navigation::poiservice::POIServiceTypes::lcon
- union org::genivi::navigation::poiservice::POIServiceTypes::Media
- $\hbox{\color{red} \bullet union org::} genivi::navigation::poiservice::POIServiceTypes::AttributeValue\\$
- · struct org::genivi::navigation::poiservice::POIServiceTypes::Details
- struct org::genivi::navigation::poiservice::POIServiceTypes::Operator
- struct org::genivi::navigation::poiservice::POIServiceTypes::CategoryAttribute
- struct org::genivi::navigation::poiservice::POIServiceTypes::CategorySortOption
- struct org::genivi::navigation::poiservice::POIServiceTypes::CAMCategory
- struct org::genivi::navigation::poiservice::POIServiceTypes::CAMCategoryUpdate
- struct org::genivi::navigation::poiservice::POIServiceTypes::PoiAttribute
- struct org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndRadius

- struct org::genivi::navigation::poiservice::POIServiceTypes::PoiDetails
- struct org::genivi::navigation::poiservice::POIServiceTypes::SearchResultDetails
- struct org::genivi::navigation::poiservice::POIServiceTypes::SearchResult
- struct org::genivi::navigation::poiservice::POIServiceTypes::PoiCAMDetails
- struct org::genivi::navigation::poiservice::POIServiceTypes::AttributeDetails
- struct org::genivi::navigation::poiservice::POIServiceTypes::CategoryDetails
- struct org::genivi::navigation::poiservice::POIServiceTypes::Category
- struct org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndLevel
- struct org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndName
- $\bullet \ \, \textbf{struct} \ \, \textbf{org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndReason} \\$
- struct org::genivi::navigation::poiservice::POIServiceTypes::CategoryAndStatus
- struct org::genivi::navigation::poiservice::POIServiceTypes::PoiAddedDetails

Modules

• module org::genivi::navigation::poiservice

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