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GENIVI Alliance

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4MapViewer

5Component Specification

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11Accepted

12**Abstract**:

13This document provides the Component Specification for the MapViewer

14Keywords:

15Navigation, MapViewer

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11 Change History

2

Version	Date	Author	Change
0.1	27 Feb 2012	Marco Residori	Document Created
	<u> </u>	(XS Embedded)	
0.2	19 Mar 2012	Marco Residori	Updated sequence diagrams.
		(XS Embedded)	Updated <i>Interfaces</i> chapter.
0.3	21 Mar 2012	Marco Residori	Updated Interfaces chapter.
		(XS Embedded)	
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		(XS Embedded)	
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		(XS Embedded)	API Version 2.0.
2.0	17 Jun 2013	Marco Residori	Updated API description.
		(XS Embedded)	API fixes: GT-2651.
			API Version 2.0 (4emini-final tag)
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		(XS Embedded)	API Version 3.0.0.
3.0.1	22 May 2014	Marco Residori	Updated copyright notes.
		(XS Embedded)	
3.0.2	30 June 2014	Marco Residori	Updated contributors list.
		(XS Embedded)	-
4.0	7 Feb 2017	Philippe	Refine the document for Franca based API
		COLLIOT (PSA	
		GROUPE)	

3

12 Introduction

2This document describes the MapViewer API.

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13 Terminology

2

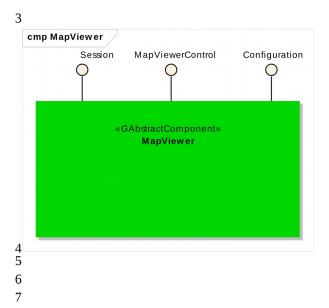
Term	Description
TargetPoint	Point the camera looks at. If the map viewer is set to follow the car position, it coincides with the vehicle position.

3

4

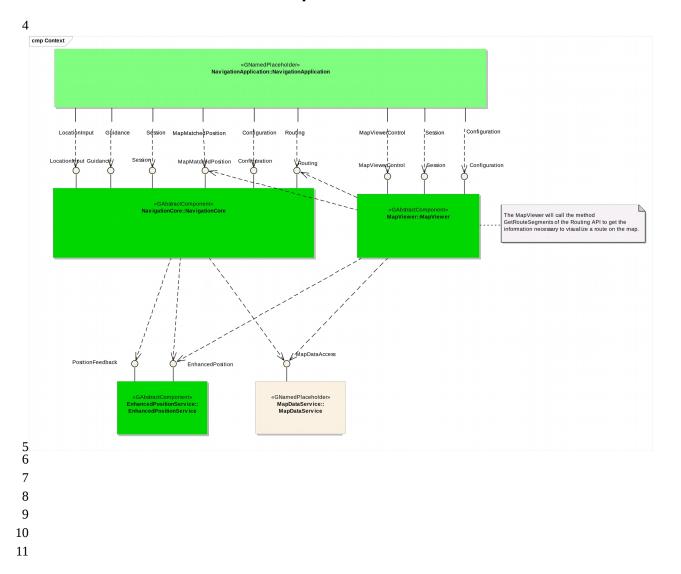
14 Architecture

24.1 Interfaces



2

34.2 Interaction with other Components



15 API

25.1 Git Repository

3The MapViewer interfaces can be found in the GENIVI Git repository at: 4https://github.com/GENIVI/navigation/tree/master/api/franca/navigation/mapviewer 5

65.2 Sequence Diagrams

75.2.1 navigation application browses map

8

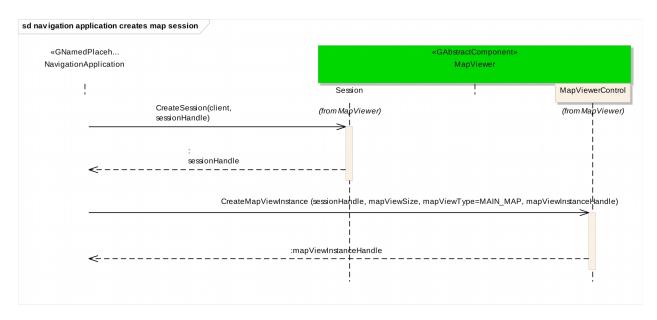


9 10 11

25.2.2 navigation application creates map session

3 4

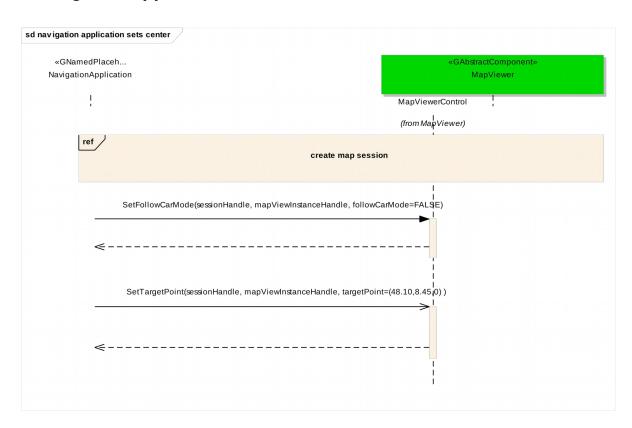
5 6



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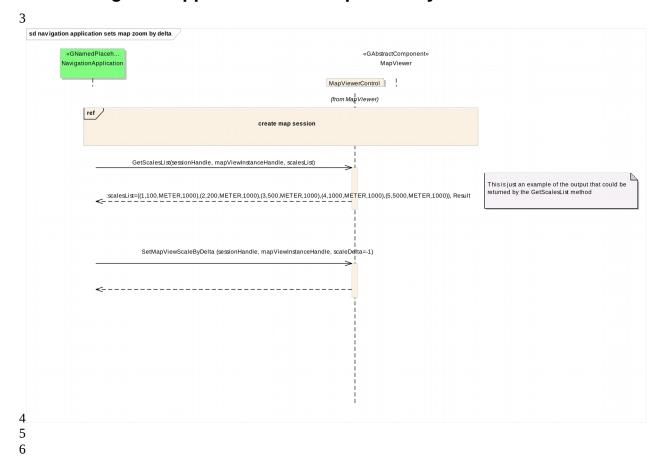
25.2.3 navigation application sets center

3



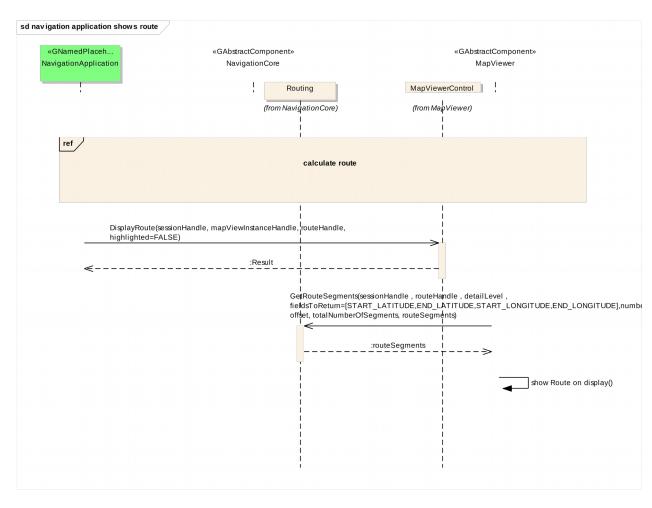
4 5

25.2.4 navigation application sets map zoom by delta



25.2.5 navigation application shows route

3 4



5 6 7

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15.3 Interfaces

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

MapViewer

Generated by Doxygen 1.8.11

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1 Namespace Documentation

1.1 org Module Reference

Modules

• genivi

1.2 org::genivi Module Reference	е
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M	od	ul	es

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

Modules

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

Classes

- interface Configuration
- interface Configuration_client
- interface MapViewerControl
- interface MapViewerControl_client
- interface Session
- interface Session_client
- 2 Class Documentation
- 2.1 org::genivi::navigation::mapviewer::MapViewerControl::AnchorPoint Struct Reference

Public Attributes

- Int16 x
- Int16 y
- 2.1.1 Member Data Documentation
- 2.1.1.1 Int16 org::genivi::navigation::mapviewer::MapViewerControl::AnchorPoint::x
- 2.1.1.2 Int16 org::genivi::navigation::mapviewer::MapViewerControl::AnchorPoint::y

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

MapViewerControl.fidl

2.2 org::genivi::navigation::mapviewer::MapViewerControl::CategoryVisibility Struct Reference

Public Attributes

- CategoryID poiCategoryId
- · Boolean visible
- UInt8 minScaleID
- UInt8 maxScaleID

2.2.1 Member Data Documentation

- 2.2.1.1 UInt8 org::genivi::navigation::mapviewer::MapViewerControl::CategoryVisibility::maxScaleID
- 2.2.1.2 UInt8 org::genivi::navigation::mapviewer::MapViewerControl::CategoryVisibility::minScaleID
- 2.2.1.3 CategoryID org::genivi::navigation::mapviewer::MapViewerControl::CategoryVisibility::poiCategoryId
- 2.2.1.4 Boolean org::genivi::navigation::mapviewer::MapViewerControl::CategoryVisibility::visible

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

MapViewerControl.fidl

2.3 org::genivi::navigation::mapviewer::Configuration Interface Reference

Public Types

- enum Settings: BasicEnum { UNITS_OF_MEASUREMENT = 48, LOCALE = 37, TIME_FORMAT = 3, CO←ORDINATES FORMAT = 6 }
- enum UnitsOfMeasurementAttribute : BasicEnum { LENGTH = 49 }
- enum UnitsOfMeasurementValue {
 METER = 50, MILE = 51, KM = 52, YARD = 53,
 FOOT = 54 }
- enum CoordinatesFormat { INVALID = 0, DEGREES = 7, MINUTES = 8, SECONDS = 9 }
- 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
- 2.3.1 Detailed Description

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

- 2.3.2 Member Typedef Documentation
- 2.3.2.1 typedef UnitsOfMeasurementValue [] org::genivi::navigation::mapviewer::Configuration::UnitsOf← MeasurementListValue
- 2.3.3 Member Enumeration Documentation
- 2.3.3.1 enum org::genivi::navigation::mapviewer::Configuration::CoordinatesFormat

Enumerator

INVALID

DEGREES

MINUTES

SECONDS

2.3.3.2 enum org::genivi::navigation::mapviewer::Configuration::Settings : BasicEnum

Enumerator

UNITS_OF_MEASUREMENT LOCALE TIME_FORMAT COORDINATES_FORMAT

2.3.3.3 enum org::genivi::navigation::mapviewer::Configuration::UnitsOfMeasurementAttribute: BasicEnum

Enumerator

LENGTH

 ${\tt 2.3.3.4} \quad {\tt enum\ org::genivi::navigation::mapviewer::Configuration::UnitsOfMeasurementValue}$

Enumerator

METER

MILE

KM

YARD

FOOT

- 2.3.4 Member Function Documentation
- 2.3.4.1 void org::genivi::navigation::mapviewer::Configuration::getCoordinatesFormat (out CoordinatesFormat)

#comment: Get the coordinates format.

2.3.4.2 void org::genivi::navigation::mapviewer::Configuration::getLocale (out String *languageCode*, out String *countryCode*, out String *scriptCode*)

#comment: Get the current language set.

2.3.4.3 void org::genivi::navigation::mapviewer::Configuration::getSupportedCoordinatesFormat (out CoordinatesFormat coordinatesFormatList)

#comment : Get the supported set of coordinates format .

2.3.4.4 void org::genivi::navigation::mapviewer::Configuration::getSupportedLocales (out Locale localeList)

#comment: Get the supported set of locales.

2.3.4.5 void org::genivi::navigation::mapviewer::Configuration::getSupportedTimeFormats (out TimeFormat timeFormatList)

#comment : Get the supported set of time format .

2.3.4.6 void org::genivi::navigation::mapviewer::Configuration::getSupportedUnitsOfMeasurement (out UnitsOfMeasurementList unitsOfMeasurementList)

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

2.3.4.7 void org::genivi::navigation::mapviewer::Configuration::getTimeFormat (out TimeFormat format)

#comment : Get the current time format .

2.3.4.8 void org::genivi::navigation::mapviewer::Configuration::getUnitsOfMeasurement (out UnitsOfMeasurement unitsOfMeasurement)

#comment: Get the units of measurement.

2.3.4.9 void org::genivi::navigation::mapviewer::Configuration::getVersion (out Version version)

#comment: This method returns the API version.

2.3.4.10 void org::genivi::navigation::mapviewer::Configuration::setCoordinatesFormat (in CoordinatesFormat coordinatesFormat)

#comment : Set the coordinates format.

2.3.4.11 void org::genivi::navigation::mapviewer::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.

2.3.4.12 void org::genivi::navigation::mapviewer::Configuration::setTimeFormat (in TimeFormat format)

#comment : Set the time format.

2.3.4.13 void org::genivi::navigation::mapviewer::Configuration::setUnitsOfMeasurement (in UnitsOfMeasurement unitsOfMeasurement)

#comment : Set the units of measurement .

- 2.3.5 Member Data Documentation
- 2.3.5.1 map_UnitsOfMeasurement org::genivi::navigation::mapviewer::Configuration::UnitsOfMeasurement ← Attribute =>UnitsOfMeasurementValue
- 2.3.5.2 map_UnitsOfMeasurementList org::genivi::navigation::mapviewer::Configuration::UnitsOf

 MeasurementAttribute =>UnitsOfMeasurementListValue

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

- · Configuration.fidl
- 2.4 org::genivi::navigation::mapviewer::Configuration client Interface Reference

Public Member Functions

- · void configurationChanged (in Settings changedSettings)
- 2.4.1 Member Function Documentation
- 2.4.1.1 void org::genivi::navigation::mapviewer::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

2.5 org::genivi::navigation::mapviewer::MapViewerControl::CustomElement Struct Reference

Public Attributes

- · String name
- · String iconUri
- · Coordinate2D coordinate
- · AnchorPoint elem4
- 2.5.1 Member Data Documentation
- 2.5.1.1 Coordinate2D org::genivi::navigation::mapviewer::MapViewerControl::CustomElement::coordinate
- 2.5.1.2 AnchorPoint org::genivi::navigation::mapviewer::MapViewerControl::CustomElement::elem4
- 2.5.1.3 String org::genivi::navigation::mapviewer::MapViewerControl::CustomElement::iconUri
- 2.5.1.4 String org::genivi::navigation::mapviewer::MapViewerControl::CustomElement::name

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

- · MapViewerControl.fidl
- 2.6 org::genivi::navigation::mapviewer::MapViewerControl::Dimension Struct Reference

Public Attributes

- UInt16 horizontalSize
- UInt16 verticalSize
- 2.6.1 Member Data Documentation
- 2.6.1.1 UInt16 org::genivi::navigation::mapviewer::MapViewerControl::Dimension::horizontalSize
- 2.6.1.2 UInt16 org::genivi::navigation::mapviewer::MapViewerControl::Dimension::verticalSize

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

- · MapViewerControl.fidl
- 2.7 org::genivi::navigation::mapviewer::MapViewerControl::DisplayedRoute Struct Reference

Public Attributes

- · Handle routeHandle
- Boolean highlighted

2.7.1	Member Data Documentation
2.7.1.1	Boolean org::genivi::navigation::mapviewer::MapViewerControl::DisplayedRoute::highlighted
2.7.1.2	P. Handle org::genivi::navigation::mapviewer::MapViewerControl::DisplayedRoute::routeHandle
The c	documentation for this struct was generated from the following file:
•	MapViewerControl.fidl
2.8	org::genivi::navigation::mapviewer::MapViewerControl::ElementValue Union Reference
Public	Attributes
•	Int32 trafficIncident Handle handle CustomElement element WayPointValue wayPointValue
2.8.1	Member Data Documentation
2.8.1.1	CustomElement org::genivi::navigation::mapviewer::MapViewerControl::ElementValue::element
2.8.1.2	P. Handle org::genivi::navigation::mapviewer::MapViewerControl::ElementValue::handle
2.8.1.3	Int32 org::genivi::navigation::mapviewer::MapViewerControl::ElementValue::trafficIncident
2.8.1.4	WayPointValue org::genivi::navigation::mapviewer::MapViewerControl::ElementValue::wayPointValue
The c	documentation for this union was generated from the following file:
•	MapViewerControl.fidl
2.9	org::genivi::navigation::mapviewer::MapViewerControl::MapScale Struct Reference
Public	Attributes
•	UInt16 scaleId

UInt16 scaleValue MapScaleUnit unit

• UInt32 millimetersPerPixel

Generated by Doxygen

- 2.9.1 Member Data Documentation
- 2.9.1.1 UInt32 org::genivi::navigation::mapviewer::MapViewerControl::MapScale::millimetersPerPixel
- 2.9.1.2 UInt16 org::genivi::navigation::mapviewer::MapViewerControl::MapScale::scaleId
- 2.9.1.3 UInt16 org::genivi::navigation::mapviewer::MapViewerControl::MapScale::scaleValue
- 2.9.1.4 MapScaleUnit org::genivi::navigation::mapviewer::MapViewerControl::MapScale::unit

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

- MapViewerControl.fidl
- 2.10 org::genivi::navigation::mapviewer::MapViewerControl::MapViewArea Struct Reference

Public Attributes

- · Double left
- · Double right
- Double top
- Double bottom
- 2.10.1 Member Data Documentation
- 2.10.1.1 Double org::genivi::navigation::mapviewer::MapViewerControl::MapViewArea::bottom
- 2.10.1.2 Double org::genivi::navigation::mapviewer::MapViewerControl::MapViewArea::left
- 2.10.1.3 Double org::genivi::navigation::mapviewer::MapViewerControl::MapViewArea::right
- 2.10.1.4 Double org::genivi::navigation::mapviewer::MapViewerControl::MapViewArea::top

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

- MapViewerControl.fidl
- 2.11 org::genivi::navigation::mapviewer::MapViewerControl Interface Reference

Classes

- struct AnchorPoint
- · struct CategoryVisibility
- struct CustomElement
- struct Dimension
- struct DisplayedRoute
- union ElementValue
- struct MapScale
- struct MapViewArea
- struct Pixel
- struct SelectedMapElement
- struct WayPointValue

Public Types

```
    enum MapViewType: BasicEnum { MAIN_MAP = 16, SPLIT_SCREEN = 17, GUIDING_MAP = 18 }

    enum MapScaleMode: BasicEnum { AUTOMATIC = 272, MANUAL = 273, HYBRID = 274 }

    enum MapPerspective: BasicEnum { PERSPECTIVE 2D = 32, PERSPECTIVE 3D = 33 }

    enum MapObject : BasicEnum {

 BUILDINGS = 128, TERRAIN = 129, DET POI, DET TTI,
 DET ONE WAY STREET ARROW, DET CITY NAME, DET ROAD NAME, DET MOTORWAY EXIT↔
 MARKER.
 DET TRAFFIC LIGHT, DET TRAFFIC LIGHTS ALONG ROUTE, DET ROAD ICON, DET DTM,
 DET LANDMARKS 3D, DET FAVORITES, DET ROUTE BLOCKING, DET ROAD,
 DET POLYGON, DET DESTINATION, DET MANOEUVRE MARKER, DET LANE GUIDANCE MARK↔
 DET_ROUTE, DET_MANOEUVRE_ARROW, DET_TREKKING_TOUR, DET_TTI_EDGE_HIGHLIGHTING,
 DET_CITY_MARKER, DET_VEHICLE, DET_POLYGON_NAME, DET_OFF_ROAD_ROUTE,
 DET TTI ARROW, DET POI NAME, DET RASTER MAP, DET BREAD CRUMB TRAIL,
 DET_EDGE_HIGHLIGHTING, DET_DIRECTION_ARROW, DET_CITY_BUILDINGS, DET_FPS_DISPLAY,
 DET_CROSSHAIR, DET_DEVDROP_BANNER, DET_FRAME_AROUND_MAP, DET_CORONA,
 DET_WATEREFFECT, DET_TREES, DET_RAIN, DET_CITYMODEL_ROUTE_TRANSPARENCY,
 DET ROUTE DESTINATION, DET RANGE DISPLAY, DET POI BRANDS, DET WEATHER MARKER,
 DET_WEATHER_OVERLAY, DET_WAYPOINT_ROUTE, DET_WAYPOINT_ROUTE_MARKER, DET_ST↔
 ENCIL }
enum PanAction: BasicEnum { PAN_START = 256, PAN_TO = 257, PAN_END = 258 }

    enum Visibility: BasicEnum { VISIBLE = 67, INVISIBLE = 68, FROZEN = 69 }

• enum Level : BasicEnum {
 LEVEL_1 = 80, LEVEL_2 = 81, LEVEL_3 = 82, LEVEL_4 = 83,
 LEVEL_5 = 84 }

    enum HeadingType: BasicEnum { CONSTANT ANGLE = 112, TRACK UP = 113, TOWARDS TARGET =

 114 }

    enum MapTheme : BasicEnum {

 THEME_1 = 96, THEME_2 = 97, THEME_3 = 98, THEME_I_CLASSIC_DAY,
 THEME I CLASSIC NIGHT, THEME I CLASSIC TRAFFIC DAY, THEME I CLASSIC TRAFFIC NIG↔
 HT, THEME I ALTERNATIVE DAY,
 THEME_I_ALTERNATIVE_NIGHT, THEME_I_ALTERNATIVE_TRAFFIC_DAY, THEME_I_ALTERNATIV↔
 E_TRAFFIC_NIGHT, THEME_I_GUIDING }

    enum MapScaleUnit : BasicEnum {

 METER = 50, MILE = 51, KM = 52, YARD = 53,
 FOOT = 54 }

    enum MapScaleType: BasicEnum { MIN = 64, MAX = 65, MID = 66 }

    enum SelectableMapType : BasicEnum {

 MET_POI = 2, MET_POLYGON = 3, MET_EDGE = 4, MET_ROAD = 5,
 MET ROAD ICON = 6, MET TTI ICON = 7, MET TTI EDGE = 8, MET CITY MARKER = 9,
 MET ROUTE = 10, MET TREKKING ROUTE = 11, MET POSITION = 12, MET LANDMARK = 13,
 MET DESTINATION = 14, MET FAVORITE = 15, MET PICTURE = 16, MET GENERIC MARKER = 17,
 CUSTOM_ELEMENT = 288, CURRENT_POSITION = 289, WAYPOINT = 290, POI = 291,
 TRAFFIC_INCIDENT = 292, ROUTE = 293, GEOCOORDINATES = 294 }
```

Public Member Functions

- void getVersion (out Version version)
- void createMapViewInstance (in Handle sessionHandle, in Dimension mapViewSize, in MapViewType map

 ViewType, out Handle mapViewInstanceHandle)
- void releaseMapViewInstance (in Handle sessionHandle, in Handle mapViewInstanceHandle)
- void getMapViewType (in Handle mapViewInstanceHandle, out MapViewType mapViewType)
- void getSupportedMapViewTypes (out MapViewType mapViewTypeList)

- void setTargetPoint (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Coordinate3D target
 —
 Point)
- void getTargetPoint (in Handle mapViewInstanceHandle, out Coordinate3D targetPoint)
- void setFollowCarMode (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Boolean follow
 —
 CarMode)
- void getFollowCarMode (in Handle mapViewInstanceHandle, out Boolean followCarMode)
- void setCameraPosition (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Coordinate3D position)
- void getCameraPosition (in Handle mapViewInstanceHandle, out Coordinate3D position)
- void setCameraHeadingAngle (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Int32 heading)
- void setCameraHeadingToTarget (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Coordinate2D target)
- void setCameraHeadingTrackUp (in Handle sessionHandle, in Handle mapViewInstanceHandle)
- void getCameraHeading (in Handle mapViewInstanceHandle, out HeadingType headingType, out Int32 headingAngle, out Coordinate2D target)
- · void setCameraTiltAngle (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Int32 tilt)
- void getCameraTiltAngle (in Handle mapViewInstanceHandle, out Int32 tilt)
- void setCameraRollAngle (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Int32 roll)
- void getCameraRollAngle (in Handle mapViewInstanceHandle, out Int32 roll)
- void setCameraDistanceFromTargetPoint (in Handle sessionHandle, in Handle mapViewInstanceHandle, in UInt32 distance)
- void getCameraDistanceFromTargetPoint (in Handle mapViewInstanceHandle, out UInt32 distance)
- void setMapViewScaleMode (in Handle sessionHandle, in Handle mapViewInstanceHandle, in MapScale
 — Mode scaleMode)
- void getMapViewScaleMode (in Handle mapViewInstanceHandle, out MapScaleMode scaleMode)
- void getSupportedMapViewScaleModes (in Handle mapViewInstanceHandle, out MapScaleMode scale
 — ModeList)
- · void setCameraHeight (in Handle sessionHandle, in Handle mapViewInstanceHandle, in UInt32 height)
- void getCameraHeight (in Handle mapViewInstanceHandle, out UInt32 height)
- void setMapViewPerspective (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Map← Perspective perspective)
- void getMapViewPerspective (in Handle mapViewInstanceHandle, out MapPerspective perspective)
- void getSupportedMapViewPerspectives (out MapPerspective perspectiveList)
- void setMapViewObjectVisibility (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Map
 — ObjectVisibility objectVisibilityList)
- void getMapViewObjectVisibility (in Handle mapViewInstanceHandle, out MapObjectVisibility object

 VisibilityList)
- void getSupportedMapViewObjectVisibilities (in Handle mapViewInstanceHandle, out MapObject object

 VisibilityList)
- void getScaleList (in Handle mapViewInstanceHandle, out MapScale scaleList)
- void setMapViewScale (in Handle sessionHandle, in Handle mapViewInstanceHandle, in UInt16 scaleID)
- void setMapViewScaleByDelta (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Int16 scaleDelta)
- void setMapViewScaleByMetersPerPixel (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Double metersPerPixel)
- void getMapViewScale (in Handle mapViewInstanceHandle, out UInt8 scaleID, out MapScaleType isMinMax)
- void setMapViewBoundingBox (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Rectangle boundingBox)
- void getMapViewBoundingBox (in Handle mapViewInstanceHandle, out Rectangle boundingBox)
- void setMapViewSaveArea (in Handle sessionHandle, in Handle mapViewInstanceHandle, in MapViewArea saveArea)
- void getMapViewSaveArea (in Handle mapViewInstanceHandle, out MapViewArea saveArea)
- void setMapViewPan (in Handle sessionHandle, in Handle mapViewInstanceHandle, in PanAction panning
 — Action, in Pixel pixelCoordinates)

void getMapViewPan (in Handle mapViewInstanceHandle, in PanAction valueToReturn, out Pixel pixel
 —
 Coordinates)

- void setMapViewRotation (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Int32 rotation
 — Angle, in Int32 rotationAnglePerSecond)
- void getMapViewRotation (in Handle mapViewInstanceHandle, out Int32 rotationAngle, out Int32 rotationAngle, out Int32 rotationAngle
- void setMapViewVisibilityMode (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Visibility visibilityMode)
- void getMapViewVisibilityMode (in Handle mapViewInstanceHandle, out Visibility visibilityMode)
- void getSupportedMapViewVisibilityModes (out Visibility visibilityModeList)
- void setMapViewPerformanceLevel (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Level performanceLevel)
- void getMapViewPerformanceLevel (in Handle mapViewInstanceHandle, out Level performanceLevel)
- void getSupportedMapViewPerformanceLevels (out Level performanceLevelList)
- void displayRoute (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Handle routeHandle, in Boolean highlighted)
- void hideRoute (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Handle routeHandle)
- void getDisplayedRoutes (in Handle mapViewInstanceHandle, out DisplayedRoute displayedRoutes)
- void getPoiCategoriesVisible (in Handle mapViewInstanceHandle, out CategoryID poiCategoryIds)
- void setPoiCategoriesVisible (in Handle sessionHandle, in Handle mapViewInstanceHandle, in CategoryID poiCategoryIds)
- void setPoiCategoriesVisibleWithinLimits (in Handle sessionHandle, in Handle mapViewInstanceHandle, in CategoryID poiCategoryIds, in UInt8 minScaleID, in UInt8 maxScaleID)
- void setPoiCategoriesNotVisible (in Handle sessionHandle, in Handle mapViewInstanceHandle, in CategoryID poiCategoryIds)
- void setTrafficIncidentsVisibility (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Boolean visible)
- void getMapViewTheme (in Handle mapViewInstanceHandle, out MapTheme mapViewTheme)
- void getSupportedMapViewThemes (out MapTheme mapViewThemeList)
- void convertPixelCoordsToGeoCoords (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Pixel pixelCoordinates, out Coordinate2D geoCoordinates)
- void convertGeoCoordsToPixelCoords (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Coordinate2D geoCoordinates, out Pixel pixelCoordinates)
- void displayCustomElements (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Custom← Element customElements, out Handle customElemenHandles)
- void hideCustomElements (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Handle customElemenHandles)
- void getDisplayedCustomElements (in Handle mapViewInstanceHandle, out CustomElementDict custom
 Elements)
- void selectElementsOnMap (in Handle mapViewInstanceHandle, in Pixel pixelCoordinate, in Selectable
 — MapType selectableTypes, in UInt16 maxNumberOfSelectedElements, out SelectedMapElement selected
 — Elements)

Public Attributes

- map_MapObjectVisibility MapObject =>Boolean
- map CustomElementDict Handle => CustomElement

2.11.1 Detailed Description

#comment: MapViewerControl = This interface offers functions to control the MapViewer

```
2.11.2 Member Enumeration Documentation
```

2.11.2.1 enum org::genivi::navigation::mapviewer::MapViewerControl::HeadingType : BasicEnum

Enumerator

```
CONSTANT_ANGLE
TRACK_UP
TOWARDS_TARGET
```

2.11.2.2 enum org::genivi::navigation::mapviewer::MapViewerControl::Level : BasicEnum

Enumerator

```
LEVEL_1
```

LEVEL_2

LEVEL_3

LEVEL_4

LEVEL_5

2.11.2.3 enum org::genivi::navigation::mapviewer::MapViewerControl::MapObject : BasicEnum

Enumerator

BUILDINGS

TERRAIN

DET_POI

DET_TTI

DET_ONE_WAY_STREET_ARROW

DET_CITY_NAME

DET_ROAD_NAME

DET_MOTORWAY_EXIT_MARKER

DET_TRAFFIC_LIGHT

DET_TRAFFIC_LIGHTS_ALONG_ROUTE

DET ROAD ICON

DET_DTM

DET_LANDMARKS_3D

DET_FAVORITES

DET_ROUTE_BLOCKING

DET_ROAD

DET_POLYGON

DET_DESTINATION

DET_MANOEUVRE_MARKER

DET_LANE_GUIDANCE_MARKER

DET_ROUTE

DET_MANOEUVRE_ARROW

DET_TREKKING_TOUR

DET_TTI_EDGE_HIGHLIGHTING

DET_CITY_MARKER

DET_VEHICLE

DET_POLYGON_NAME

DET_OFF_ROAD_ROUTE

DET_TTI_ARROW

DET_POI_NAME

DET_RASTER_MAP

DET_BREAD_CRUMB_TRAIL

DET_EDGE_HIGHLIGHTING

DET DIRECTION ARROW

DET_CITY_BUILDINGS

DET_FPS_DISPLAY

DET_CROSSHAIR

DET_DEVDROP_BANNER

DET_FRAME_AROUND_MAP

DET_CORONA

DET_WATEREFFECT

DET_TREES

DET_RAIN

DET_CITYMODEL_ROUTE_TRANSPARENCY

DET_ROUTE_DESTINATION

DET_RANGE_DISPLAY

DET_POI_BRANDS

DET_WEATHER_MARKER

DET_WEATHER_OVERLAY

DET_WAYPOINT_ROUTE

DET_WAYPOINT_ROUTE_MARKER

DET_STENCIL

2.11.2.4 enum org::genivi::navigation::mapviewer::MapViewerControl::MapPerspective : BasicEnum

Enumerator

PERSPECTIVE_2D

PERSPECTIVE_3D

 ${\tt 2.11.2.5} \quad enum\ org:: genivi:: navigation:: map Viewer Control:: Map Scale Mode: Basic Enum$

Enumerator

AUTOMATIC

MANUAL

HYBRID

```
2.11.2.6 enum org::genivi::navigation::mapviewer::MapViewerControl::MapScaleType : BasicEnum
Enumerator
    MIN
    MAX
    MID
2.11.2.7 enum org::genivi::navigation::mapviewer::MapViewerControl::MapScaleUnit : BasicEnum
Enumerator
    METER
    MILE
    KM
    YARD
    FOOT
2.11.2.8 enum org::genivi::navigation::mapviewer::MapViewerControl::MapTheme : BasicEnum
Enumerator
    THEME_1
    THEME_2
    THEME_3
    THEME_I_CLASSIC_DAY
    THEME_I_CLASSIC_NIGHT
    THEME_I_CLASSIC_TRAFFIC_DAY
    THEME_I_CLASSIC_TRAFFIC_NIGHT
    THEME_I_ALTERNATIVE_DAY
    THEME_I_ALTERNATIVE_NIGHT
    THEME_I_ALTERNATIVE_TRAFFIC_DAY
    THEME_I_ALTERNATIVE_TRAFFIC_NIGHT
    THEME_I_GUIDING
2.11.2.9 enum org::genivi::navigation::mapviewer::MapViewerControl::MapViewType : BasicEnum
Enumerator
    MAIN_MAP
    SPLIT_SCREEN
    GUIDING_MAP
2.11.2.10 enum org::genivi::navigation::mapviewer::MapViewerControl::PanAction: BasicEnum
Enumerator
    PAN_START
    PAN_TO
    PAN_END
```

2.11.2.11 enum org::genivi::navigation::mapviewer::MapViewerControl::SelectableMapType: BasicEnum

Enumerator

MET POI

MET_POLYGON

MET_EDGE

MET_ROAD

MET_ROAD_ICON

MET_TTI_ICON

MET_TTI_EDGE

MET_CITY_MARKER

MET_ROUTE

MET_TREKKING_ROUTE

MET_POSITION

MET_LANDMARK

MET_DESTINATION

MET_FAVORITE

MET_PICTURE

MET_GENERIC_MARKER

CUSTOM_ELEMENT

CURRENT_POSITION

WAYPOINT

POI

TRAFFIC_INCIDENT

ROUTE

GEOCOORDINATES

2.11.2.12 enum org::genivi::navigation::mapviewer::MapViewerControl::Visibility : BasicEnum

Enumerator

VISIBLE

INVISIBLE

FROZEN

- 2.11.3 Member Function Documentation
- 2.11.3.1 void org::genivi::navigation::mapviewer::MapViewerControl::convertGeoCoordsToPixelCoords (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Coordinate2D geoCoordinates, out Pixel pixelCoordinates)

#comment : convertGeoCoordsToPixelCoords = This method converts geographical coordinates into pixel coordinates

2.11.3.2 void org::genivi::navigation::mapviewer::MapViewerControl::convertPixelCoordsToGeoCoords (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Pixel pixelCoordinates, out Coordinate2D geoCoordinates)

#comment : convertPixelCoordsToGeoCoords = This method converts pixel coordinates to geographical coordinates

2.11.3.3 void org::genivi::navigation::mapviewer::MapViewerControl::createMapViewInstance (in Handle sessionHandle, in Dimension mapViewSize, in MapViewType mapViewType, out Handle mapViewInstanceHandle)

#comment : createMapViewInstance = This method creates a new map instance

2.11.3.4 void org::genivi::navigation::mapviewer::MapViewerControl::displayCustomElements (in Handle sessionHandle, in Handle mapViewInstanceHandle, in CustomElement customElements, out Handle customElemenHandles)

#comment: displayCustomElements = This method visualizes a set of custom elements on the map

2.11.3.5 void org::genivi::navigation::mapviewer::MapViewerControl::displayRoute (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Handle routeHandle, in Boolean highlighted)

#comment : displayRoute = This method visualizes one of the calculated routes

2.11.3.6 void org::genivi::navigation::mapviewer::MapViewerControl::getCameraDistanceFromTargetPoint (in Handle mapViewInstanceHandle, out UInt32 distance)

#comment : getCameraDistanceFromTargetPoint = This method gets the mode and the camera distance from the target point

2.11.3.7 void org::genivi::navigation::mapviewer::MapViewerControl::getCameraHeading (in Handle *mapViewInstanceHandle*, out HeadingType *headingType*, out Int32 *headingAngle*, out Coordinate2D *target*)

#comment : getCameraHeading = This method returns the current camera heading

2.11.3.8 void org::genivi::navigation::mapviewer::MapViewerControl::getCameraHeight (in Handle mapViewInstanceHandle, out UInt32 height)

#comment : getCameraHeight = This method gets the camera height

2.11.3.9 void org::genivi::navigation::mapviewer::MapViewerControl::getCameraPosition (in Handle *mapViewInstanceHandle*, out Coordinate3D *position*)

#comment : getCameraPosition = This method returns the coordinates of the point at which the camera is positioned

2.11.3.10 void org::genivi::navigation::mapviewer::MapViewerControl::getCameraRollAngle (in Handle mapViewInstanceHandle, out Int32 roll)

#comment : getCameraRollAngle = This method returns the camera roll angle

2.11.3.11 void org::genivi::navigation::mapviewer::MapViewerControl::getCameraTiltAngle (in Handle mapViewInstanceHandle, out Int32 tilt)

#comment : getCameraTiltAngle = This method returns the camera tilt angle

2.11.3.12 void org::genivi::navigation::mapviewer::MapViewerControl::getDisplayedCustomElements (in Handle mapViewInstanceHandle, out CustomElementDict customElements)

#comment : getDisplayedCustomElements = This method retrieves the visualized custom elements on the map

2.11.3.13 void org::genivi::navigation::mapviewer::MapViewerControl::getDisplayedRoutes (in Handle mapViewInstanceHandle, out DisplayedRoute displayedRoutes)

#comment : getDisplayedRoutes = This method returns a list of displayed routes

2.11.3.14 void org::genivi::navigation::mapviewer::MapViewerControl::getFollowCarMode (in Handle mapViewInstanceHandle, out Boolean followCarMode)

#comment : getFollowCarMode = This method returns the current FollowCar-mode

2.11.3.15 void org::genivi::navigation::mapviewer::MapViewerControl::getMapViewBoundingBox (in Handle mapViewInstanceHandle, out Rectangle boundingBox)

#comment : getMapViewBoundingBox = This method returns the bounding box of a given map instance

2.11.3.16 void org::genivi::navigation::mapviewer::MapViewerControl::getMapViewObjectVisibility (in Handle mapViewInstanceHandle, out MapObjectVisibility objectVisibilityList)

#comment : getMapViewObjectVisibility = This method gets the type of objects shown on the map.

2.11.3.17 void org::genivi::navigation::mapviewer::MapViewerControl::getMapViewPan (in Handle *mapViewInstanceHandle*, in PanAction *valueToReturn*, out Pixel *pixelCoordinates*)

#comment : getMapViewPan

2.11.3.18 void org::genivi::navigation::mapviewer::MapViewerControl::getMapViewPerformanceLevel (in Handle mapViewInstanceHandle, out Level performanceLevel)

#comment : getMapViewPerformanceLevel = This method returns the perfomance level of a given map instance

2.11.3.19 void org::genivi::navigation::mapviewer::MapViewerControl::getMapViewPerspective (in Handle mapViewInstanceHandle, out MapPerspective perspective)

#comment : getMapViewPerspective = This method returns the current map perspective

2.11.3.20 void org::genivi::navigation::mapviewer::MapViewerControl::getMapViewRotation (in Handle mapViewInstanceHandle, out Int32 rotationAngle, out Int32 rotationAnglePerFrame)

#comment : getMapViewRotation = This method is particularly interesting for debugging purposes

2.11.3.21 void org::genivi::navigation::mapviewer::MapViewerControl::getMapViewSaveArea (in Handle mapViewInstanceHandle, out MapViewArea saveArea)

#comment : getMapViewSaveArea = This methods defines the area that the HMI guarantees not to cover with other windows or user interface elements

2.11.3.22 void org::genivi::navigation::mapviewer::MapViewerControl::getMapViewScale (in Handle *mapViewInstanceHandle*, out UInt8 *scaleID*, out MapScaleType *isMinMax*)

#comment : getMapViewScale = This method returns the currently used map scale

2.11.3.23 void org::genivi::navigation::mapviewer::MapViewerControl::getMapViewScaleMode (in Handle mapViewInstanceHandle, out MapScaleMode scaleMode)

#comment : getMapViewScaleMode = This method gets the scaling mode.

2.11.3.24 void org::genivi::navigation::mapviewer::MapViewerControl::getMapViewTheme (in Handle mapViewInstanceHandle, out MapTheme mapViewTheme)

#comment: getMapViewTheme = This method returns the current theme of a given map view instance

2.11.3.25 void org::genivi::navigation::mapviewer::MapViewerControl::getMapViewType (in Handle *mapViewInstanceHandle*, out MapViewType *mapViewType*)

#comment : getMapViewType = This method returns the map type of a map instance as it was set using Create ← MapViewInstance

2.11.3.26 void org::genivi::navigation::mapviewer::MapViewerControl::getMapViewVisibilityMode (in Handle mapViewInstanceHandle, out Visibility visibility Mode)

#comment : getMapViewVisibilityMode = This method returns the current visibility mode

2.11.3.27 void org::genivi::navigation::mapviewer::MapViewerControl::getPoiCategoriesVisible (in Handle mapViewInstanceHandle, out CategoryID poiCategoryIds)

#comment: getPoiCategoriesVisible = Get the set of POI categories displayed on the map.

2.11.3.28 void org::genivi::navigation::mapviewer::MapViewerControl::getScaleList (in Handle *mapViewInstanceHandle*, out MapScale *scaleList*)

#comment : getScaleList = This method returns a list of supported map scales

2.11.3.29 void org::genivi::navigation::mapviewer::MapViewerControl::getSupportedMapViewObjectVisibilities (in Handle mapViewInstanceHandle, out MapObject objectVisibilityList)

#comment: getSupportedMapViewObjectVisibilities = This method gets the supported object visibilities.

2.11.3.30 void org::genivi::navigation::mapviewer::MapViewerControl::getSupportedMapViewPerformanceLevels (out Level performanceLevelList)

#comment : getSupportedMapViewPerformanceLevels = This method retrieves the supported perfomance levels

2.11.3.31 void org::genivi::navigation::mapviewer::MapViewerControl::getSupportedMapViewPerspectives (out MapPerspective perspectiveList)

#comment: getSupportedMapViewPerspectives = This method retrieves the supported mapview perspectives

2.11.3.32 void org::genivi::navigation::mapviewer::MapViewerControl::getSupportedMapViewScaleModes (in Handle mapViewInstanceHandle, out MapScaleMode scaleModeList)

#comment : getSupportedMapViewScaleModes = This method gets the supported scaling modes.

2.11.3.33 void org::genivi::navigation::mapviewer::MapViewerControl::getSupportedMapViewThemes (out MapTheme mapViewThemeList)

#comment: getSupportedMapViewThemes = This method retrieves the supported mapview themes

2.11.3.34 void org::genivi::navigation::mapviewer::MapViewerControl::getSupportedMapViewTypes (out MapViewType mapViewTypeList)

#comment : getSupportedMapViewTypes = This method retrieves the supported map view types

2.11.3.35 void org::genivi::navigation::mapviewer::MapViewerControl::getSupportedMapViewVisibilityModes (out Visibility visibilityModeList)

#comment: getSupportedMapViewVisibilityModes = This method retrieves the supported mapview visibility modes

2.11.3.36 void org::genivi::navigation::mapviewer::MapViewerControl::getTargetPoint (in Handle *mapViewInstanceHandle*, out Coordinate3D *targetPoint*)

#comment : getTargetPoint = This method retrieves the target point position

2.11.3.37 void org::genivi::navigation::mapviewer::MapViewerControl::getVersion (out Version version)

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

2.11.3.38 void org::genivi::navigation::mapviewer::MapViewerControl::hideCustomElements (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Handle customElemenHandles)

#comment : hideCustomElements = This method hides a set of custom elements which were visualized by Display ← CustomElements

2.11.3.39 void org::genivi::navigation::mapviewer::MapViewerControl::hideRoute (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Handle routeHandle)

#comment : hideRoute = This method hides one of the visible routes

2.11.3.40 void org::genivi::navigation::mapviewer::MapViewerControl::releaseMapViewInstance (in Handle sessionHandle, in Handle mapViewInstanceHandle)

#comment : releaseMapViewInstance = This method releases (i.e. destroys) a given map instance. Only invisible map instances can be released

2.11.3.41 void org::genivi::navigation::mapviewer::MapViewerControl::selectElementsOnMap (in Handle mapViewInstanceHandle, in Pixel pixelCoordinate, in SelectableMapType selectableTypes, in UInt16 maxNumberOfSelectedElements, out SelectedMapElement selectedElements)

#comment : selectElementsOnMap = This method selects elements on the map view which are at the position specified by user input

2.11.3.42 void org::genivi::navigation::mapviewer::MapViewerControl::setCameraDistanceFromTargetPoint (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Ulnt32 distance)

#comment : setCameraDistanceFromTargetPoint = This method sets the mode and the camera distance from the target point

2.11.3.43 void org::genivi::navigation::mapviewer::MapViewerControl::setCameraHeadingAngle (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Int32 heading)

#comment : setCameraHeadingAngle = This method sets the map view heading angle Note: the camera position will be automatically set in such a way, that it looks at the currently selected target point

2.11.3.44 void org::genivi::navigation::mapviewer::MapViewerControl::setCameraHeadingToTarget (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Coordinate2D target)

#comment : setCameraHeadingToTarget = This method sets the camera heading in such a way, that the camera always looks at a given target

2.11.3.45 void org::genivi::navigation::mapviewer::MapViewerControl::setCameraHeadingTrackUp (in Handle sessionHandle, in Handle mapViewInstanceHandle)

#comment : setCameraHeadingTrackUp = This method sets the camera heading in such a way, that the camera always looks in the direction in which the car is moving

2.11.3.46 void org::genivi::navigation::mapviewer::MapViewerControl::setCameraHeight (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Ulnt32 height)

#comment : setCameraHeight = This method sets the camera height

2.11.3.47 void org::genivi::navigation::mapviewer::MapViewerControl::setCameraPosition (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Coordinate3D position)

#comment: setCameraPosition = This method sets the coordinates of the point at which the camera must be positioned Note: the camera heading will be automatically set in such a way, that the camera is aimed at the view point

2.11.3.48 void org::genivi::navigation::mapviewer::MapViewerControl::setCameraRollAngle (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Int32 roll)

#comment : setCameraRollAngle = This method sets the camera roll angle

2.11.3.49 void org::genivi::navigation::mapviewer::MapViewerControl::setCameraTiltAngle (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Int32 tilt)

#comment : setCameraTiltAngle = This method sets the camera tilt angle

2.11.3.50 void org::genivi::navigation::mapviewer::MapViewerControl::setFollowCarMode (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Boolean followCarMode)

#comment : setFollowCarMode = This method sets the FollowCar mode

2.11.3.51 void org::genivi::navigation::mapviewer::MapViewerControl::setMapViewBoundingBox (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Rectangle boundingBox)

#comment : setMapViewBoundingBox = This method sets the map bounding box

2.11.3.52 void org::genivi::navigation::mapviewer::MapViewerControl::setMapViewObjectVisibility (in Handle sessionHandle, in Handle mapViewInstanceHandle, in MapObjectVisibility objectVisibilityList)

#comment: setMapViewObjectVisibility = This method specifies the type of objects to show on the map.

2.11.3.53 void org::genivi::navigation::mapviewer::MapViewerControl::setMapViewPan (in Handle sessionHandle, in Handle mapViewInstanceHandle, in PanAction panningAction, in Pixel pixelCoordinates)

#comment : setMapViewPan = This method pans a given map instance

2.11.3.54 void org::genivi::navigation::mapviewer::MapViewerControl::setMapViewPerformanceLevel (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Level performanceLevel)

#comment: setMapViewPerformanceLevel = This method sets the performance level of a given map instance

2.11.3.55 void org::genivi::navigation::mapviewer::MapViewerControl::setMapViewPerspective (in Handle sessionHandle, in Handle mapViewInstanceHandle, in MapPerspective perspective)

#comment : setMapViewPerspective = This method sets the map perspective

2.11.3.56 void org::genivi::navigation::mapviewer::MapViewerControl::setMapViewRotation (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Int32 rotationAngle, in Int32 rotationAnglePerSecond)

#comment : setMapViewRotation = This method rotates the map

2.11.3.57 void org::genivi::navigation::mapviewer::MapViewerControl::setMapViewSaveArea (in Handle sessionHandle, in Handle mapViewInstanceHandle, in MapViewArea saveArea)

#comment : setMapViewSaveArea = This methods defines the area that the HMI guarantees not to cover with other windows or user interface elements

2.11.3.58 void org::genivi::navigation::mapviewer::MapViewerControl::setMapViewScale (in Handle sessionHandle, in Handle mapViewInstanceHandle, in UInt16 scaleID)

#comment : setMapViewScale = This method sets the map scale by specifying a ScaleID

2.11.3.59 void org::genivi::navigation::mapviewer::MapViewerControl::setMapViewScaleByDelta (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Int16 scaleDelta)

#comment : setMapViewScaleByDelta = This method sets the map scale by specifying a delta value with respect to the currently set ScaleID

2.11.3.60 void org::genivi::navigation::mapviewer::MapViewerControl::setMapViewScaleByMetersPerPixel (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Double metersPerPixel)

#comment : setMapViewScaleByMetersPerPixel = This method sets the map scale by specifying the number of meters that a pixel represents

2.11.3.61 void org::genivi::navigation::mapviewer::MapViewerControl::setMapViewScaleMode (in Handle sessionHandle, in Handle mapViewInstanceHandle, in MapScaleMode scaleMode)

#comment : setMapViewScaleMode = This method sets the scaling mode.

2.11.3.62 void org::genivi::navigation::mapviewer::MapViewerControl::setMapViewTheme (in Handle sessionHandle, in Handle mapViewInstanceHandle, in MapTheme mapViewTheme)

#comment: setMapViewTheme = This method configures the theme of a given map view instance

2.11.3.63 void org::genivi::navigation::mapviewer::MapViewerControl::setMapViewVisibilityMode (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Visibility visibilityMode)

#comment : setMapViewVisibilityMode = This method sets the current visibility mode

2.11.3.64 void org::genivi::navigation::mapviewer::MapViewerControl::setPoiCategoriesNotVisible (in Handle sessionHandle, in Handle mapViewInstanceHandle, in CategoryID poiCategoryIds)

#comment : setPoiCategoriesNotVisible = Remove POI categories from the set of POI categories displayed on the map.

2.11.3.65 void org::genivi::navigation::mapviewer::MapViewerControl::setPoiCategoriesVisible (in Handle sessionHandle, in Handle mapViewInstanceHandle, in CategoryID poiCategoryIds)

#comment : setPoiCategoriesVisible = Add POI categories to the set of POI categories displayed on the map. Any specified category that until now was displayed with scale limits is now displayed without limits.

2.11.3.66 void org::genivi::navigation::mapviewer::MapViewerControl::setPoiCategoriesVisibleWithinLimits (in Handle sessionHandle, in Handle mapViewInstanceHandle, in CategoryID poiCategoryIds, in UInt8 minScaleID, in UInt8 maxScaleID)

#comment: setPoiCategoriesVisible = Add POI categories to the set of POI categories displayed on the map, where the POI's are only displayed in a specific range of scales. Any specified category that until now was displayed without scale limits is now displayed with limits.

2.11.3.67 void org::genivi::navigation::mapviewer::MapViewerControl::setTargetPoint (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Coordinate3D targetPoint)

#comment : setTargetPoint = This method sets the position of the point the camera is always aimed at

2.11.3.68 void org::genivi::navigation::mapviewer::MapViewerControl::setTrafficIncidentsVisibility (in Handle sessionHandle, in Handle mapViewInstanceHandle, in Boolean visible)

#comment : setTrafficIncidentsVisibility = Set the visibility of Traffic Incidents on the map.

- 2.11.4 Member Data Documentation
- 2.11.4.1 map CustomElementDict org::genivi::navigation::mapviewer::MapViewerControl::Handle => CustomElement
- 2.11.4.2 map_MapObjectVisibility org::genivi::navigation::mapviewer::MapViewerControl::MapObject =>Boolean

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

MapViewerControl.fidl

2.12 org::genivi::navigation::mapviewer::MapViewerControl_client Interface Reference

Public Member Functions

- void followCarModeChanged (in Handle mapViewInstanceHandle, in Boolean followCarMode)
- void cameraPositionChanged (in Handle mapViewInstanceHandle, in Coordinate3D targetPoint)
- void CameraHeadingChanged (in Handle mapViewInstanceHandle, in HeadingType headingType, in Int32 headingAngle)
- void cameraTiltAngleChanged (in Handle mapViewInstanceHandle, in Int32 tilt)
- void cameraDistanceFromTargetPointChanged (in Handle mapViewInstanceHandle, in UInt32 distance)
- void mapViewScaleChanged (in Handle mapViewInstanceHandle, in UInt8 scaleID, in MapScaleType isMin

 Max)
- void MapViewPerspectiveChanged (in Handle mapViewInstanceHandle, in MapPerspective perspective)
- void mapViewBoundingBoxChanged (in Handle mapViewInstanceHandle, in Rectangle boundingBox)
- void mapViewSaveAreaChanged (in Handle mapViewInstanceHandle, in MapViewArea saveArea)
- void mapViewVisibilityChanged (in Handle mapViewInstanceHandle, in Visibility visibilityMode)
- void mapViewPerformanceLevelChanged (in Handle mapViewInstanceHandle, in Level performanceLevel)
- void displayedRoutes (in Handle mapViewInstanceHandle, in DisplayedRoute displayedRoutes)
- void poiCategoriesVisibilityChanged (in Handle mapViewInstanceHandle, in CategoryVisibility poiCategory
 — Visibilities)
- void mapViewThemeChanged (in Handle mapViewInstanceHandle, in MapTheme mapViewTheme)

2.12.1 Member Function Documentation

2.12.1.1 void org::genivi::navigation::mapviewer::MapViewerControl_client::cameraDistanceFromTargetPointChanged (in Handle *mapViewInstanceHandle*, in UInt32 *distance*)

 $broadcast\ \#comment: camera Distance From Target Point Changed = This\ signal\ is\ emitted\ when\ the\ camera\ distance\ from\ the\ target\ point\ changes$

2.12.1.2 void org::genivi::navigation::mapviewer::MapViewerControl_client::CameraHeadingChanged (in Handle mapViewInstanceHandle, in HeadingType headingType, in Int32 headingAngle)

broadcast #comment : CameraHeadingChanged = This signal is emitted when the heading angle of the camera changes

2.12.1.3 void org::genivi::navigation::mapviewer::MapViewerControl_client::cameraPositionChanged (in Handle mapViewInstanceHandle, in Coordinate3D targetPoint)

broadcast #comment: cameraPositionChanged = This signal is emitted when the position of the camera changes

2.12.1.4 void org::genivi::navigation::mapviewer::MapViewerControl_client::cameraTiltAngleChanged (in Handle mapViewInstanceHandle, in Int32 tilt)

broadcast #comment : cameraTiltAngleChanged = This signal is emitted when the camera tilt angle changes

2.12.1.5 void org::genivi::navigation::mapviewer::MapViewerControl_client::displayedRoutes (in Handle mapViewInstanceHandle, in DisplayedRoute displayedRoutes)

broadcast #comment : displayedRoutes = This signal is emitted when the list of displayed routes change

2.12.1.6 void org::genivi::navigation::mapviewer::MapViewerControl_client::followCarModeChanged (in Handle mapViewInstanceHandle, in Boolean followCarMode)

broadcast #comment : followCarModeChanged = This signal is emitted when the follow-car-mode changes

2.12.1.7 void org::genivi::navigation::mapviewer::MapViewerControl_client::mapViewBoundingBoxChanged (in Handle mapViewInstanceHandle, in Rectangle boundingBox)

broadcast #comment : mapViewBoundingBoxChanged = This signal is emitted when the bounding box of a map instance changes

2.12.1.8 void org::genivi::navigation::mapviewer::MapViewerControl_client::mapViewObjectVisibilityChanged (in Handle mapViewInstanceHandle, in MapObjectVisibility objectVisibilityList)

broadcast #comment : mapViewObjectVisibilityChanged = This signal is emitted when the type of objects shown on the map changes

2.12.1.9 void org::genivi::navigation::mapviewer::MapViewerControl_client::mapViewPerformanceLevelChanged (in Handle mapViewInstanceHandle, in Level performanceLevel)

broadcast #comment : mapViewPerformanceLevelChanged = This signal is emitted when the perfomance level of a map instance changes

2.12.1.10 void org::genivi::navigation::mapviewer::MapViewerControl_client::MapViewPerspectiveChanged (in Handle mapViewInstanceHandle, in MapPerspective perspective)

broadcast #comment : MapViewPerspectiveChanged = This signal is emitted when the map perspective changes

2.12.1.11 void org::genivi::navigation::mapviewer::MapViewerControl_client::mapViewSaveAreaChanged (in Handle mapViewInstanceHandle, in MapViewArea saveArea)

broadcast #comment : mapViewSaveAreaChanged = This signal is emitted when the area that the HMI guarantees not to cover with other windows or user interface elements chnages

2.12.1.12 void org::genivi::navigation::mapviewer::MapViewerControl_client::mapViewScaleChanged (in Handle mapViewInstanceHandle, in UInt8 scaleID, in MapScaleType isMinMax)

broadcast #comment: mapViewScaleChanged = This signal is emitted when the mapview scale changes

2.12.1.13 void org::genivi::navigation::mapViewer::MapViewerControl_client::mapViewThemeChanged (in Handle mapViewInstanceHandle, in MapTheme mapViewTheme)

broadcast #comment : mapViewThemeChanged = This signal is emitted when the theme of a map view instance changes

2.12.1.14 void org::genivi::navigation::mapviewer::MapViewerControl_client::mapViewVisibilityChanged (in Handle mapViewInstanceHandle, in Visibility VisibilityMode)

broadcast #comment : mapViewVisibilityChanged = This signal is emitted when the MapView visibility changes

2.12.1.15 void org::genivi::navigation::mapviewer::MapViewerControl_client::poiCategoriesVisibilityChanged (in Handle mapViewInstanceHandle, in CategoryVisibility poiCategoryVisibilities)

broadcast #comment : poiCategoriesVisibilityChanged = This signal is emitted when the visibility of POI categories on a map instance changes

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

- MapViewerControl.fidl
- 2.13 org::qenivi::navigation::mapviewer::MapViewerControl::Pixel Struct Reference

Public Attributes

- UInt16 x
- UInt16 y
- 2.13.1 Member Data Documentation
- 2.13.1.1 UInt16 org::genivi::navigation::mapviewer::MapViewerControl::Pixel::x
- 2.13.1.2 UInt16 org::genivi::navigation::mapviewer::MapViewerControl::Pixel::y

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

- MapViewerControl.fidl
- 2.14 org::genivi::navigation::mapviewer::MapViewerControl::SelectedMapElement Struct Reference

Public Attributes

- SelectableMapType type
- Coordinate2D position
- ElementValue value
- 2.14.1 Member Data Documentation
- ${\tt 2.14.1.1} \quad {\tt Coordinate2D\ org::genivi::navigation::mapviewer::MapViewerControl::SelectedMapElement::position}$
- 2.14.1.2 SelectableMapType org::genivi::navigation::mapviewer::MapViewerControl::SelectedMapElement::type
- 2.14.1.3 ElementValue org::genivi::navigation::mapviewer::MapViewerControl::SelectedMapElement::value

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

• MapViewerControl.fidl

2.15 org::genivi::navigation::mapviewer::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)

2.15.1 Detailed Description

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

2.15.2 Member Function Documentation

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

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

2.15.2.2 void org::genivi::navigation::mapviewer::Session::deleteSession (in Handle sessionHandle)

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

2.15.2.3 void org::genivi::navigation::mapviewer::Session::getAllSessions (out Session sessionsList)

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

2.15.2.4 void org::genivi::navigation::mapviewer::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) .

2.15.2.5 void org::genivi::navigation::mapviewer::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

2.16 org::genivi::navigation::mapviewer::Session_client Interface Reference

Public Member Functions

void sessionDeleted (in Handle sessionHandle)

2.16.1 Mer	nber Fun	ction Do	cumentation

2.16.1.1 void org::genivi::navigation::mapviewer::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
- 2.17 org::genivi::navigation::mapviewer::MapViewerControl::WayPointValue Struct Reference

Public Attributes

- · Handle routeHandle
- UInt16 waypointIndex
- 2.17.1 Member Data Documentation
- 2.17.1.1 Handle org::genivi::navigation::mapviewer::MapViewerControl::WayPointValue::routeHandle
- 2.17.1.2 UInt16 org::genivi::navigation::mapviewer::MapViewerControl::WayPointValue::waypointIndex

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

- MapViewerControl.fidl
- 3 File Documentation
- 3.1 Configuration.fidl File Reference

Classes

- interface org::genivi::navigation::mapviewer::Configuration
- interface org::genivi::navigation::mapviewer::Configuration_client

Modules

• module org::genivi::navigation::mapviewer

3.2 MapViewerControl.fidl File Reference

Classes

- interface org::genivi::navigation::mapviewer::MapViewerControl
- struct org::genivi::navigation::mapviewer::MapViewerControl::Dimension
- struct org::genivi::navigation::mapviewer::MapViewerControl::MapScale
- struct org::genivi::navigation::mapviewer::MapViewerControl::MapViewArea
- struct org::genivi::navigation::mapviewer::MapViewerControl::Pixel
- struct org::genivi::navigation::mapviewer::MapViewerControl::DisplayedRoute
- struct org::genivi::navigation::mapviewer::MapViewerControl::CategoryVisibility
- struct org::genivi::navigation::mapviewer::MapViewerControl::AnchorPoint
- struct org::genivi::navigation::mapviewer::MapViewerControl::CustomElement
- struct org::genivi::navigation::mapviewer::MapViewerControl::SelectedMapElement
- struct org::genivi::navigation::mapviewer::MapViewerControl::WayPointValue
- union org::genivi::navigation::mapviewer::MapViewerControl::ElementValue
- interface org::genivi::navigation::mapviewer::MapViewerControl_client

Modules

• module org::genivi::navigation::mapviewer

3.3 Session.fidl File Reference

Classes

- interface org::genivi::navigation::mapviewer::Session
- interface org::genivi::navigation::mapviewer::Session_client

Modules

• module org::genivi::navigation::mapviewer

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