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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 30321-2013

**Geographic information -- Location-based services --
Multimodal routing and navigation**

地理信息 基于位置服务 多模式路径规划与导航

(English Translation)

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard uses the translation method identical with ISO 19134:2007 "Information Geographic location services based on multi-modal route planning with the guide Flight. " Correspondence between the consistency of the standards of international documents and normative references of the following documents.

--- GB/T 22022-2008 Geographic information time mode (ISO 19108:2002, IDT)

--- GB/T 23707-2009 geographic information spatial pattern (ISO 19107:2003, IDT) this standard was proposed by the National Mapping Geographic Information Bureau.

This standard by the National Standardization Technical Committee on Geographical

Information (SAC/TC230) centralized.

This standard was drafted. Beijing SuperMap Software Co., Ltd., Geographic Information Industry Development Center Academy of Sciences, Beijing NavInfo Technology Co., Ltd.

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Introduction

In everyday life, a typical travel activities involve multiple modes of transportation, such as walking, driving, park and ride, public transport and the Rent a car and so on. Travelers often face the problem is to find the optimal path or the best combination of several modes of transportation, and the need to consider from Departure point to a destination via a predetermined activity locations (way point), such as shopping or appointments; consider satisfy the constraint sequence, for example, "1 activity in vivo Before moving to complete 2 Position 1 Position 2 be reached before. "A typical intercity travelers are faced with a decision in which mode of transport in which station Points (connection points) transfers, in order to make a decision from origin to destination for all transport modes. This decision will depend on the overall Costs, including mileage, parking, path, docking site (connection point), stop halfway and so on.

This standard provides a conceptual model that is used to describe the use of mobile terminals to support two or more road traffic models Path planning and navigation applications and data services. The conceptual model as the standard mode, similar to the spatial pattern (ISO 19107) or time mode (ISO 19108). This standard includes support for fixed line or fixed timetable manner described path planning and navigation services for it describes a data type of transfer, and data types of fixed line and/or fixed schedule mode schedule information and route information description.

In the 19133 ISO .2005, based on the standard for multi-mode and navigation path, extend existing classes at the same time for the new Class described in detail. And ISO 19133:2005, the present standard assumes that all requests for service are encapsulated in the mobile client and customer Requesting user application or a web proxy between applications/response pair. Thus, the standard describes the multi-mode and route planning Navigation-related services required to operate the type of operation and a series of request/response data types.

Through the ISO 19133:2005 supplements and/or extended, multi-mode path planning for mobile clients and standardized navigation Conceptual model enhances the ability of multi-mode location services applications share geographic information. These modes will be multi-mode location service application manipulation Use, especially in metropolitan areas and travel environment for all inter-city provided consistent understandable spatial data structures.

Geographic location-based information services Multi-mode navigation and path planning

1 Scope

This standard defines the operation of multi-mode path planning and navigation data types as well as those associated with the type of data. This standard is set Righteousness network services designed wireless network device can obtain this service through a proxy server application that resides online, but not limited to surroundings.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

ISO 19101 Geographic Information Reference Model
(Geographicinformation-Referencemodel) ISO 19107 Geographic Information Spaces
mode (Geographicinformation-Spatialschema) ISO 19108 Geographic Information Time
Mode (Geographicinformation-Temporalschema) ISO 19112 Geographic information -
Spatial Reference geographic identifiers (Geographicinformation-Spatial
referencingbygeographicidentifiers) ISO 19133:2005 Geographic information services
tracking and navigation location
(Geographicinformation-Location-basedservices-Trackingandnavigation)

3 Consistency

The standard conformance statement consistency depends on the type of entity.

If the data exchange mechanism consists of object types described in this standard to achieve a record, it is consistent with this standard, as described in Appendix A of A.2 Requirements.

If the path planning and navigation network service interface defined in this standard in one or two sub-types of services, and it this standard is the same, as specified in Appendix A A.3.

Appendix A gives details of the abstract test suite consistency category.

4 Terms and Definitions

The following terms and definitions apply to this document.

Application Support user needs and data processing operations.

[GB/T 17694-2009]

Application Mode applicationschema One or more applications required data conceptual model.