**MapAuto Linux SDK**

Baidu map car version of the Linux SDK is a set of Linux-based application program interface. You can use this set of SDK to develop a map application for Linux system devices. By calling the Map SDK interface, you can easily access Baidu map services and data to build a feature-rich, interactive, automotive version of the map application.

Currently the Linux SDK is only used for developer development. You need to register as a developer before you can use the MapAuto SDK. For business purposes, please contact your business before using it.

This release of the Linux SDK includes Ubuntu demo, lib library and demo instructions. Apollo platform will continue to update, release the car system map SDK, developers can be concerned about the official website dynamic update download.

The current Baidu map car version only provides map services in China, so the SDK is only for domestic developers to use.

**map**

Provide map display and map operation functions;

• Map impressions include: normal maps (this version only supports 2D maps) real-time traffic maps.

• Map operation: through the interface or gesture control to achieve the map of the click, double-click, long press, zoom, rotate, change the angle of view and other operations.

**POI Search**

Support for peripheral search, regional search, city search and Place details information retrieval.

• Peripheral search: POI search based on the keyword input by the user at the point where the distance is the center and the distance is the radius;

• Area search: POI search based on keywords in the specified rectangle area;

• City Search: POI search based on user input keywords in a city;

• POI Details Search: Retrieves the details of the PO based on the ID information of the POI.

**Geocoding**

Provides the ability to convert between geographic coordinates and addresses.

• Forward geocoding: the ability to convert a Chinese address or place name description to a corresponding location on the Earth's surface;

• Reverse geocoding: The process of converting the address coordinates of the Earth's surface to standard addresses.

**Route plan**

Support the driving scene of the line planning.

• Driving route planning: to provide different strategies, planning driving routes, support the way to set the way. Developers can customize the development (such as route / electricity routing) based on information such as mileage, time, and mobile points output by the SDK.

**navigation**

Navigation map control: zoom in, zoom out, 2D view, 3D perspective.

Navigation information display: turn to the standard, intersection enlargement, route information, road information, electronic eyes, speed broadcast, scale and so on.

* Route overview

In the navigation process, click the route overview button to enter the route overview mode. The route overview mode can display the traffic information on the navigation route.

* Text navigation

Text navigation consists of simple induction information and voice playback.

* HUD navigation

HUD night mode, user-friendly night driving, to avoid the dispersion of the attention of the road ahead.

* Voice broadcast

Use the TTS module to broadcast the corresponding induced voice, currently only supports Chinese.

* Real-time traffic

In the navigation process can be through the road switch, open real-time traffic to understand the traffic information.

**Map cover**

Baidu Maps SDK supports a variety of map covers to help you show richer maps. Currently supported map overlays are: positioning layer, map mark, geometric (dot, polyline, arc, polygon, etc.), topographic map layer, POI search result overlay, line planning result cover, etc. The

**Positioning**

With GPS, WIFI, base station, and IP hybrid targeting, use the Android targeting SDK to get location information and use the Maps SDK targeting layer for location impressions.

* Integrated network location

For the development of high-precision positioning, low-power positioning and device positioning only three positioning mode, with GPS, base stations, WiFi and sensor information, to achieve high-precision integrated network location service.

* Offline positioning function

Based on the resident point mining and synchronization cache information, in the case of no network can also quickly and accurately locate, greatly improve the user positioning experience.

* Anti-geocoding + location semantics

On-demand latitude and longitude coordinates, detailed address and description of the POI, support provincial and municipal structured address, exclusive support POI semantic name.

**Offline map**

Users can download the offline package interface via the SDK and download the offline map package. Offline maps support differential updates. Use offline maps to save user traffic and provide better map impressions.

**Personalized maps**

Support for using personalized map templates to change basemap colors and styles (requires a request).

• Use personalized templates to implement color settings for map elements, map elements containing earth, water, grass, high speed, common roads, railways, subways, poi, etc., and poi and road text color settings.

• Control the display map elements with visible properties.

Follow-up open version, we will further optimize this feature, so that the majority of developers through the visual editor to edit the style template.