Applicants Name:
1. Robert Bosch Engineering and Business Solutions Limited
2. Robert Bosch GmbH

Title: **A METHOD AND DEVICE TO SELECT ONE OR MORE POINTS OF INTEREST**

ABSTRACT:

A navigation device (100) to select one or more points of interest (POIs) from a display unit (108) of the navigation device (100) is disclosed. The navigation device (100) comprises a means (104) to display a plurality of POIs with first level of information and a plurality of POIs with second level of information corresponding to each of the POI with first level of information simultaneously on the display unit (108) of the navigation device; and a means (106) to select one or more POIs with second level of information from the display of the navigation device.

WE CLAIM:

1. A navigation device (100) to select one or more points of interest (POIs) from a display unit (108) of said navigation device (100), said navigation device (100) comprising:

   a means (104) to display a plurality of POIs with first level of information and a plurality of POIs with second level of information corresponding to each of said POI with first level of information simultaneously on said display unit (108) of said navigation device; and

   a means (106) to select one or more of said POIs with second level of information from said display of said navigation device.

2. The navigation device (100) as claimed in claim 1, wherein said POIs with second level of information are more restrictive/specific than said POIs with first level of information.

3. The navigation device (100) as claimed in claim 1, wherein said selected one or more POIs with second level of information are associated with a same POI with first level of information.

4. The navigation device (100) as claimed in claim 1, wherein said selected one or more POIs with second level of information are associated with multiple POIs with first level of information.

5. The navigation device (100) as claimed in claim 1, wherein a POI with second level of information is a POI with final level of information.

6. The navigation device (100) as claimed in claim 1, further comprising a means to display one or more POIs with next level of information for said selected POI with second level of information on said display unit (108) of said navigation device.

7. A method to select one or more points of interest from a display unit of a navigation device (100), comprising:

displaying a plurality of POIs with first level of information and a plurality of POIs with second level of information corresponding to each of said POI with first level of information simultaneously on said display unit (108) of said navigation device (100); and

selecting one or more of said POIs with second level of information from said display unit (108) of said navigation device (100).

Dated on this the 25th day of February, 2013.

For **Robert Bosch Engineering and Business Solutions Limited**
and **Robert Bosch GmbH**
By their attorney,

(BRINDA MOHAN)
(ARUNACHALM APPAJI MOHAN)

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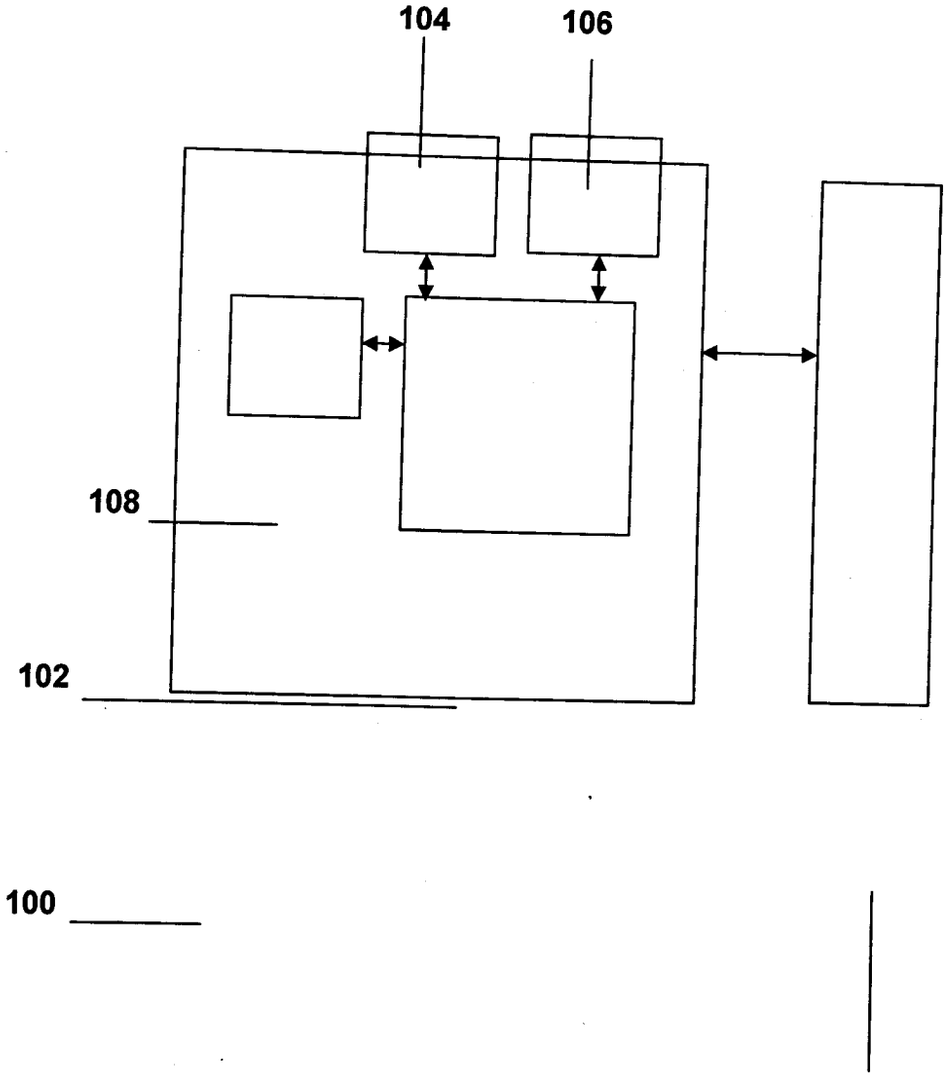

Figure 1

For **Robert Bosch Engineering and Business Solutions Limited**
and **Robert Bosch GmbH**
By their attorney,

(BRINDA MOHAN)
(ARUNACHALM APPAJI MOHAN)

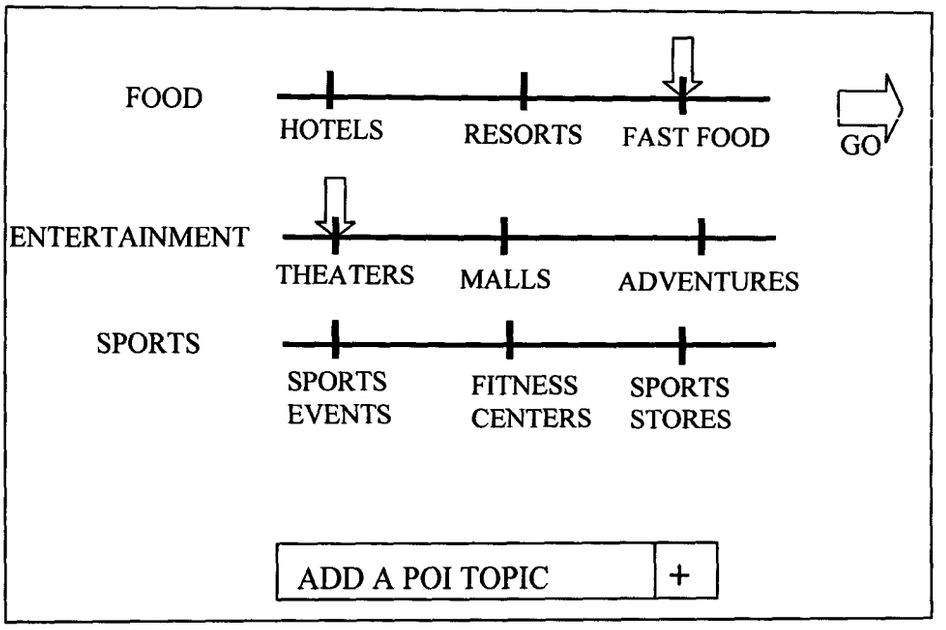

Figure 2

For **Robert Bosch Engineering and Business Solutions Limited**
and **Robert Bosch GmbH**
By their attorney,

(BRINDA MOHAN)
(ARUNACHALM APPAJI MOHAN)

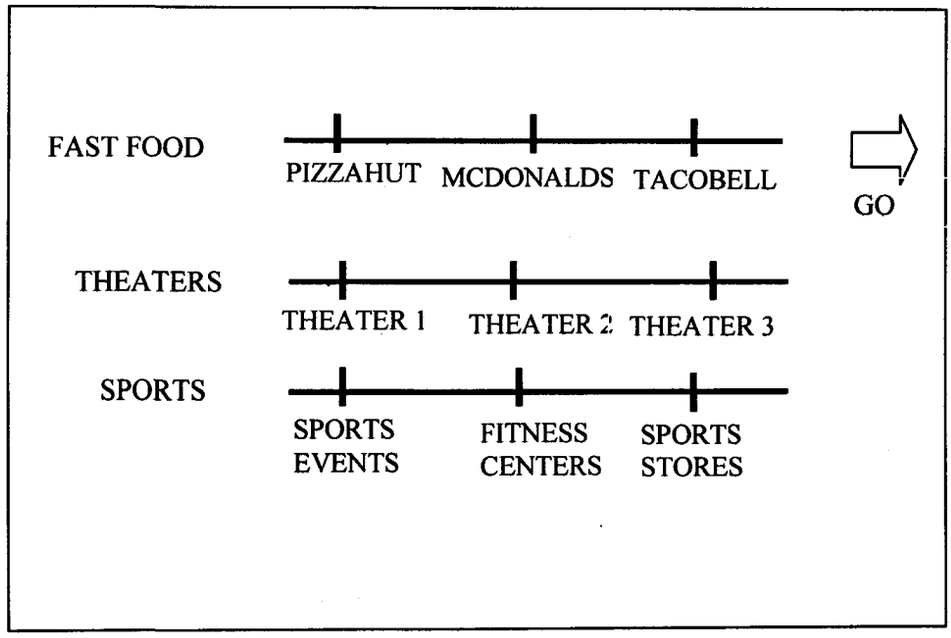

Figure 3

For **Robert Bosch Engineering and Business Solutions Limited**
and **Robert Bosch GmbH**
By their attorney,

(BRINDA MOHAN)
(ARUNACHALM APPAJI MOHAN)

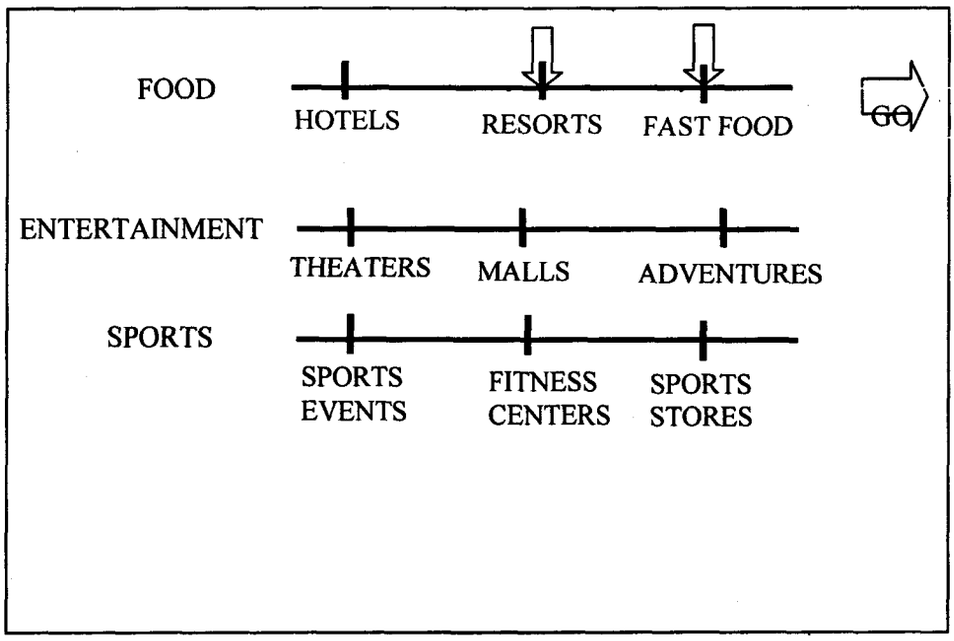

Figure 4

For **Robert Bosch Engineering and Business Solutions Limited**
and **Robert Bosch GmbH**
By their attorney,

(BRINDA MOHAN)
(ARUNACHALM APPAJI MOHAN)

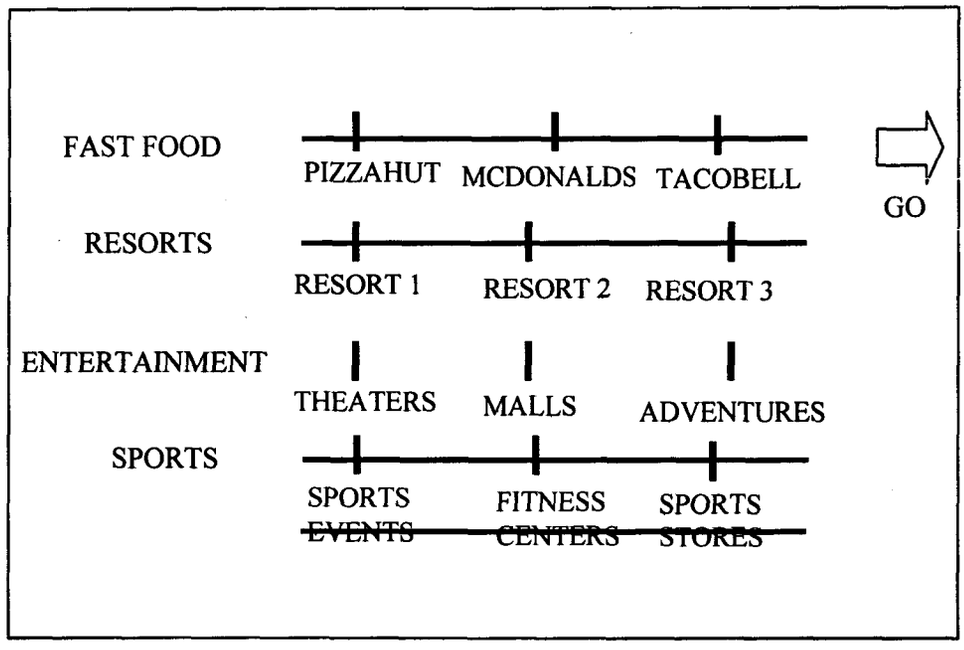

Figure 5

For **Robert Bosch Engineering and Business Solutions Limited**
and **Robert Bosch GmbH**
By their attorney,

(BRINDA MOHAN)
(ARUNACHALM APPAJI MOHAN)

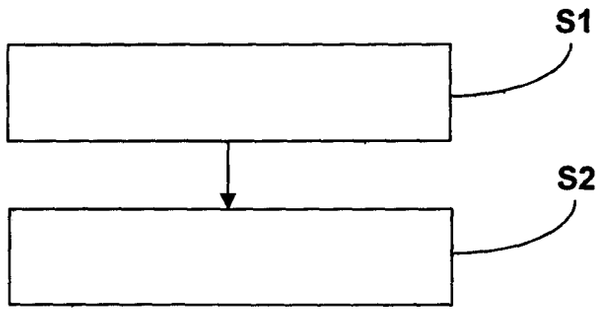

Figure 6

For **Robert Bosch Engineering and Business Solutions Limited**
and **Robert Bosch GmbH**
By their attorney,

(BRINDA MOHAN)
(ARUNACHALM APPAJI MOHAN)

Field of the invention

The invention relates to the selection of one or more points of interest (POIs) from a display unit of a navigation device. More particularly, it relates to the display of POIs with first level of information and POIs with second level of information corresponding to each of the POIs with first level of information simultaneously on the display unit of the navigation device. The invention allows a selection of one or more POIs with second level of information from the display unit of the navigation device.

Background of the invention

A navigation device provides information about route information to an user. The navigation device displays landmarks and well-known destination points along the route which are referred as points of interest (POIs). POIs can include restaurants, amusements parks, shopping centers, hospitals, fire stations and the like. The prior art, US patent Application, 20110130959 discloses a navigation method of a mobile terminal. It discloses a navigation apparatus to provide a point of interest (POI) search function on the display unit, to search for POI associated with a location using the POI search function. The prior art discloses displaying POI categories based on the search result on the display unit. It further discloses a selectable POI icon for each of the POI categories for obtaining POI associated with the corresponding POI category on the display unit. For example, if a POI category (restaurant) is selected by the user, then a controller searches the POI from a storage unit, and displays a POI result list associated with the searched particular POI on the display unit. The POI result list associated with the searched particular POI is displayed after the selection of the POI icon.

Object of the invention

The object of the invention is to select one or more points of interest (POIs) from a display unit of a navigation device. The navigation device of the invention comprises a means to display a plurality of POIs with first level of information and a plurality of POIs with second level of information corresponding to each of the POI with first

level of information simultaneously on a display unit of the navigation device. For example, the navigation device for a POI with first level of information "restaurants", the navigation device displays "fast food", "Chinese" and "resorts" as corresponding POIs with second level of information on the display unit of the navigation device. The navigation device provides a means to select one or more POIs with second level of information from the display of the navigation device. A user can view both the first level POIs and their corresponding second level POIs on the screen concurrently and select desired POIs with second level of information from the screen of the display unit of the navigation device.

Advantages of the invention

The navigation device displays multiple POIs with first level of information and related POIs with second level of information for each of the POIs with first level of information simultaneously on the screen. The user can select desired POIs with first and second levels of information from the same screen of the display unit. To select a POI with second level of information, for example, theaters, related to the POI with first level of information "entertainment", the user can easily do so from the same screen thus saving time and improving user convenience. Since the POIs with second level of information are displayed on the same screen as that of their corresponding POI with first level of information, navigation to another screen to display the POIs with second level of information is avoided. This increases the flexibility in the selection of POIs with multiple level of information from the same screen.

Short description of the drawing

An exemplifying embodiment of the invention is explained in principle below with reference to the drawings. The drawings are,

Figure 1 illustrates a navigation device to select one or more points of interest (POIs) from a display unit of the navigation device in accordance with this invention.

Figure 2 illustrates an exemplary view of the screen when the user selects multiple POIs with second level of information from different POIs with first level of information.

Figure 3 illustrates an exemplary view of the screen displaying POIs with next level of information for the user selected POIs with second level of information from different POIs with first level of information.

Figure 4 illustrates an exemplary view of the screen when the user selects multiple POIs with second level of information from a same POI with first level of information.

Figure 5 illustrates an exemplary view of the screen displaying POIs with next level of information for the user selected POIs with second level of information from the same POI with first level of information.

Figure 6 illustrates a flowchart of the method to select one or more points of interest (POIs) from the display unit of the navigation device in accordance with this invention.

Description of the invention

The invention relates to the selection of one or more points of interest (POIs) from a display unit of a navigation device. The navigation device displays POIs with first level of information and POIs with second level of information corresponding to each of the POI with first level of information simultaneously on a screen of the display unit. According to the present invention, this is done by the features of the independent claims.

Figure 1 illustrates a navigation device (100) to select one or more points of interest (POIs) from a display unit (108) of the navigation device (100) in accordance with this invention. The navigation device (100) comprises a controller (102) to control all the other components of the navigation device (100). The navigation device (100) comprises a means (104) to display a plurality of POIs with first level of information and a plurality of POIs with second level of information corresponding to each of the

POI with first level of information simultaneously on the display unit (108) of the navigation device (100). The display unit (108) of the navigation device (100) displays the POIs on a screen. The display unit (108) of the navigation device (100) displays corresponding POIs with second level of information next to each POI with first level of information. The POIs with second level of information are more restrictive and specific than the POIs with first level of information. The navigation device (100) displays POIs with multiple level of information on the screen of the display unit (108) concurrently. In an embodiment, a POI with second level of information is a POI with final level of information with maximum specific information available about the category of its corresponding POI with first level of information. The navigation device (100) also comprises a means (106) to select one or more POIs with second level of information from the display of the navigation device (100). The user can conveniently select desired POIs with second level of information without waiting for the navigation device (100) to load POIs with second level of information in the screen after the selection of POI with first level of information.

In an embodiment, the navigation device (100) allows the user to select one or more POIs with second level of information associated with the same POI with first level of information from the display unit (108) of the navigation device (100). The navigation device (100) further obtains the POIs with next level of information for the selected POIs associated with the same POI with first level of information from a database (110) and displays on the display unit (108).

In another embodiment, the navigation device (100) allows the user to select multiple POIs with second level of information associated with different POIs with first level of information. For example, the user selects "fitness centers" from the POI with first level of information "sports" and "theaters" from the POI with first level of information "entertainment". The navigation device (100) further obtains the POIs with next level of information for the selected POIs from the database (110) and displays on the display unit (108).

Figure 2 illustrates an exemplary view of the screen of the navigation device (100) when the user selects multiple POIs with second level of information from different POIs with first level of information. In this example, the navigation device (100)

provides a default list of POIs with first level of information – "Food", "Entertainment" and "Sports" on the screen. Multiple POIs with second level of information are displayed on the screen next to the corresponding POI with first level of information. The POIs with second level of information of a POI with first level of information are a sub-set of the corresponding POI with first level of information. For the POI with first level of information "Food", the navigation device (100) displays "fast food", "Chinese" and "resorts" as POIs with second level of information next to the POI "Food". Similarly, for "Entertainment", "Theaters", "Malls", and "Adventure" are displayed as POIs with second level of information. For "Sports", "Sports Events", "Fitness Centers" and "Sports Stores" are displayed as POIs with second level of information. The navigation device (100) provides the user with an option to select one or more POIs with second level of information from the screen of the display unit (108). In this example, it is shown that the user has selected "fast food" from the POI with first level of information "Food" and "Theaters" from the POI with first level of information "Entertainment". The navigation device (100) saves the user preferences and obtains the POIs with next level of information from the database (110) for the selected POIs with second level of information - "fast food" and "Theaters", once the user presses the "Go" button. The POIs with next level of information for the selected POIs are displayed on the screen of the display unit (108) as shown in Figure 3. The navigation device (100) also provides the user with an option to add POIs along with the default list of POIs displayed on the screen of the display unit (108).

Figure 4 illustrates an exemplary view of a screen when the user selects multiple POIs with second level of information from a same POI with first level of information. Here, the user selects "fast food" and "resorts" displayed next to the POI with first level of information -"food". The navigation device (100) obtains the POIs with next level of information from the database for the selected POIs with second level of information, that is, "fast food" and "resorts", once the user presses the "Go" button. The POIs with next level of information for "fast food" and "resorts" are displayed on the screen of the display unit (108) as shown in Figure 5.

Figure 6 illustrates a flowchart of the method to select one or more points of interest (POIs) from the display unit (108) of the navigation device (100) in accordance with this invention. At step S1, a means (104) displays multiple POIs with first level of

information and multiple POIs with second level of information corresponding to each of the POI with first level of information concurrently on the display unit (108) of the navigation device (100). At step S2, a means (106) allows the user select one or more POI with second level of information from the display unit (108) of the navigation device (100).

It must be understood that the embodiments explained in the above detailed description in only illustrative and does not limit the scope of this invention. The scope of this invention is limited only by the scope of the claims. Many modification and changes in the embodiments aforementioned are envisaged and are within the scope of this invention.