

Using the predictive model, current information, together with historical information, may be used to predict what the traffic patterns will be like over a given period of time. This allows the system to be dynamic and to account for the dynamic nature of traffic patterns. Therefore, the user may be provided with not only the best route, given current traffic conditions, but the best route that is predicted for the traffic conditions that will actually exist as the user traverses a particular route.

While the present invention has been described with respect to a limited number of preferred embodiments, those skilled in the art will appreciate numerous modifications and variations therefrom. It is intended that the appended claims cover all such modifications and variations as fall within the true spirit and scope of the present invention.

What is claimed is:

1. A method for developing a predictive model of traffic flows comprising:

developing a database of the count of the number of vehicles and their times for traversing a given segment at a plurality of different times;

using said database to determine an amount of time to traverse said segment at a future time; and

using a matching algorithm to find a segment and time interval that matches a characteristics of a future time interval.

2. The method of claim 1 including comparing the information determined from said database to actual time information to reduce the amount of information to develop the database.

3. The method of claim 1 including finding a segment specific historical record for the time of day that most closely matches a given situation.

4. The method of claim 3 including selecting a number of preceding and succeeding street segments and time intervals and using information about the times for these intervals to predict a future time for a given interval.

5. The method of claim 1 further including developing counts for a particular segment at a future time and using information about current vehicle positions and predicted routes to determine an amount of time to traverse said segment at a future time.

6. The method of claim 1 including estimating the travel time to reach a particular location based on the time taken to reach a similar location during the time interval identified by the matching algorithm.

7. An article comprising a medium for storing instructions that cause a processor-based system to:

develop a database of the count of the number of vehicles and their times for traversing a given segment at a plurality of different times;

use said database to determine an amount of time to traverse said segment at a future time; and

use a matching algorithm to find a segment and a time interval that matches the characteristics of a future time interval.

8. The article of claim 7 further storing instructions that enable the processor-based system to compare the information determined from the database to actual time information to reduce the amount of information to develop the database.

9. The article of claim 7 further storing instructions that enable the processor-based system to find a segment specific historical record for the time of day that most closely matches a given situation.

10. The article of claim 9 further storing instructions that enable the processor-based system to select a number preceding and succeeding street segments and time intervals and use information about the times for those intervals to predict a future time for a given interval.

11. The article of claim 7 further storing instructions that enable the processor-based system to develop a count for a particular segment at a future time and use information about current vehicle position and predicted routes to determine an amount of time to traverse such segments at a future time.

12. The article of claim 7 further storing instructions that enable the processor-based system to estimate the travel time to reach a particular location based on the time taken to reach a similar location during the time interval identified by the matching algorithm.

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