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(54) Title: METHOD AND DEVICE FOR ACQUIRING DISTRIBUTED DURATION FOR TRAFFIC LIGHTS

(54) 发明名称: 交通信号灯分配时长的获取方法及装置

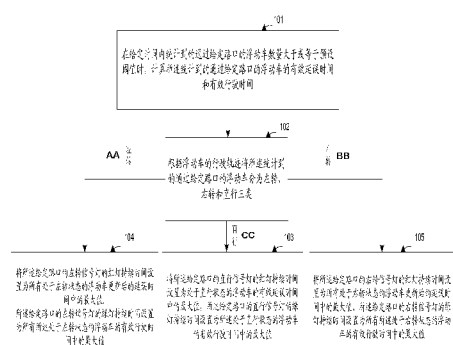


图 1 / Fig. 1

- 101 CALCULATING AN EFFECTIVE DELAY TIME AND AN EFFECTIVE DRIVING TIME OF FLOATING CARS PASSING THROUGH A GIVEN INTERSECTION BASED ON STATISTICAL DATA. WHEN THE NUMBER OF FLOATING CARS PASSING THROUGH THE GIVEN INTERSECTION BASED ON STATISTICAL DATA IN A GIVEN DURATION IS GREATER THAN OR EQUAL TO A PREDETERMINED THRESHOLD VALUE
- 102 ACCORDING TO THE DRIVING LOCI OF THE FLOATING CARS, SORTING THE FLOATING CARS PASSING THROUGH THE GIVEN INTERSECTION BASED ON THE STATISTICAL DATA INTO THREE CLASSES: TURNING LEFT, TURNING RIGHT AND THROUGH TRAFFIC
- AA TURNING LEFT
BB TURNING RIGHT
CC THROUGH TRAFFIC
- 103 SETTING THE RED LIGHT DURATION OF THE THROUGH TRAFFIC LIGHT AT THE GIVEN INTERSECTION TO THE MAXIMUM OF THE EFFECTIVE DELAY TIME OF THE FLOATING CARS OF THE THROUGH TRAFFIC, AND SETTING THE GREEN LIGHT DURATION OF THE THROUGH TRAFFIC LIGHT AT THE GIVEN INTERSECTION TO THE MAXIMUM OF THE EFFECTIVE DRIVING TIME OF THE FLOATING CARS OF THE THROUGH TRAFFIC
- 104 SETTING THE RED LIGHT DURATION OF THE LEFT-TURN TRAFFIC LIGHT AT THE GIVEN INTERSECTION TO THE MAXIMUM OF THE UPDATED DELAY TIME OF THE FLOATING CARS TURNING LEFT, AND SETTING THE GREEN LIGHT DURATION OF THE LEFT-TURN TRAFFIC LIGHT AT THE GIVEN INTERSECTION TO THE MAXIMUM OF THE EFFECTIVE DRIVING TIME OF THE FLOATING CARS TURNING LEFT
- 105 SETTING THE RED LIGHT DURATION OF THE RIGHT-TURN TRAFFIC LIGHT AT THE GIVEN INTERSECTION TO THE MAXIMUM OF THE UPDATED DELAY TIME OF THE FLOATING CARS TURNING RIGHT, AND SETTING THE GREEN LIGHT DURATION OF THE RIGHT-TURN TRAFFIC LIGHT AT THE GIVEN INTERSECTION TO THE MAXIMUM OF THE EFFECTIVE DRIVING TIME OF THE FLOATING CARS TURNING RIGHT

(57) Abstract: A method and a device for a distributed duration for traffic lights. The method includes: calculating an effective delay time and an effective driving time of floating cars passing through a given intersection based on statistical data; then according to the driving loci of the floating cars, sorting the floating cars passing through the given intersection based on the statistical data into three classes: turning left, turning right and through traffic; and finally, calculating the distributed duration for the traffic lights according to the effective delay time and the effective driving time of the floating cars passing through the given intersection based on the statistical data. The present invention relates to the field of intelligent transport systems, and achieves the calculation of a distributed duration for traffic lights while reducing the hardware cost.

(57) 摘要: 一种交通信号灯分配时长的方法及装置, 所述方法包括: 计算统计到的通过给定路口的浮动车的有效延误时间和有效行驶时间, 然后根据浮动车的行驶轨迹将所述统计到的通过给定路口的浮动车分为左转、右转和直行三类, 最后根据统计到的通过给定路口的浮动车的有效延误时间和有效行驶时间, 计算出交通信号灯的分配时长。本发明涉及智能交通系统领域, 在实现计算出交通信号灯分配时长的同时, 降低了硬件成本。

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