

利用資料探勘分析貨車駕駛省油路線選擇

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摘要

Abstract: It is very important for freight or truck industry to implement the energy saving and carbon reduction policy today. There will be a potential to help freight or truck companies to save their fuel consumptions since they don't have fixed routes and schedules. We assisted a truck company to build its GPS and GIS fleet management system. Through gathering relevant fuel, personnel, and GPS vehicle trajectory data, we build a research data warehouse. The relevant information collected from the OBU are the license plate number, the system time, location, status (launch, operation, engine idle stop, turn off), the positioning status (the auxiliary positioning, satellite positioning), direction (East, South, West, north, southeast, northeast, southwest, northwest), speed (km / hr), longitude, latitude, mileage, engine speed. Those data are gathered once every 30 seconds. There were 30 trucks of the same model and 30 drivers were collected a total of 624,151 data records. The frequent pattern mining technique was used to analyze drivers' low fuel consumption route choice behavior. We analyze each driver's fuel consumption rate on the same origin and destination with various routes. Besides, we also analyze each driver's fuel consumption rate on the same route. We obtained concrete results.

關鍵字: Keywords: Data Mining, Low Fuel Consumption Route Choice, Vehicle Navigation Systems, GIS