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Abstract
Aiming at a goal of using technology to create intellectual operation system, of which not only satisfies the customer insight, but also soothes the truck drivers' petition by conquering the limitation of hardware and without conflicting with company's policy, we are making a project by constructing a vehicle routes planning system to provide a workable and efficient program for one animal feed plant solving the long-ago troublesome problem of transportation distribution. In addition, there are two more achievements of timing and expenses saving as well.
In the paper, we will explore the real problems and work out the solutions during constructing such a system based on the following issues: (1) what is the company's purpose：bringing in a brand-new concept to redraft and improve the previous system; (2) who is the target：to satisfy the requirements of truck drivers and customers with the new system, based on the relative digital information collected and analyzed through data mining and interview etc; (3) how to run the mechanism：using the measure method of car speed, instead of the distance as it used to be, and the tools of electronic map, GPS and Regression Analysis, to build the database of transportation network; (4) which problem should be solved: to work out a solution for the core problem of vehicle routing distribution by re-dividing category, heuristic solutions and random mechanism proposed a cluster-first route-second procedure for the multi-compartment vehicle routing problem; and (5) where to run the process: connecting the interface between the company's internal related systems and the new one, to execute the further test and analysis.
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