

多重補貨點接駁車輛路線問題之研究

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摘要

Since the land cost of CBD is expensive, logistics or freight carriers always setup their depots at the outskirts of urban area. Such a location may increase the distance and frequency of truck routes, especially the situation that service duration is narrow. In order to conquer the above defects, some carriers utilized large truck, which moves to and stands at a specific location as the virtual depot, to replenish the small trucks for the second round delivery.

The purpose of this paper is to present a model, named as the Multi-Point Feeder Vehicle Routing Problem (MFVRP), to cope with the previous operation. In addition, a metaheuristic procedure, which consists of the initial solution construction module, the neighborhood search module and the List Based Threshold Accepting (LBTA) module, is proposed to solve the MFVRP. Furthermore, a bank of 15 MFVRP instances that are modified from VRP benchmarks is generated to identify the feasibility of LBTA procedure for the MFVRP. A computer program of the LBTA is coded in C# language to conduct the experimental tests. Computational results show that the proposed LBTA for the MFVRP is feasible and performs well.

關鍵字：Multi-point Feeder, Vehicle Routing Problem, List Based Threshold Accepting