Development of an Algorithm for Allocation of a Railway Crew Depot

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A railway crew depot is normally located adjacent to a station along the track. The duty of individual crew member starts from the crew depot and returns to the same, therefore, the efficient of the crew schedule is dependent on the crew depot allocation. To analyze the best allocation, we developed an algorithm that decision of crew depot allocation and preparation of crew schedule are performed simultaneously. Applying the forgoing algorithm to the existing freight line, we are able to obtain the valid allocation and schedule plan within 24-hours.