Scheduling Vehicles on Track

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We consider vehicle dispatching problem on a network of vehicle track with multiple vehicles and loading/unloading sites. The problem is to find the operation schedule of vehicles while minimizing the total distance traveled and delay. We develop an algorithm which generates the dispatching time and pacing information satisfying various constraints such as; the distance and capacity limit of each vehicle, earliest possible departure time and desired latest arrival time. The algorithm is based on the extension of two wel-known techniques, namely, Clark-Wright heuristics developed for the pacing problem on a single track with sidings. Results of our computational   experiment are also to be discussed.