The problem of scheduling a freight train as a problem of integer programming.

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The central question that motives this paper is the problem of making up a freight train and the routes on the railway. It is necessary from the set of orders available at the stations to determine time-scheduling and destination routing by railways in order to minimize the total completion time. In this paper it was suggested formulation of this problem by applying integer programming.

Moreover, In this paper it was shown that depending on the situation, the task can be formulated in different ways: the number of train can be fixed or leave arbitrary; change objective function, routes, train schedules and so on. In the all situation the task is a problem of integer programming and for which exists the number of exact or approximation approaches. It’s important to emphasize that the effectiveness of the problem solution it depends on analysis of the structure of the constraint set and select an appropriate method of solution.

References

