

Data Description for instance of Truck to Door Assignment Problem with temporary storage under consideration

1 Data Description

The data in the file titled: 4-10-4-10 contains data for the scenarios where 10 inbound and 10 outbound trucks have to be assigned to 4 inbound and 4 outbound docks. The data in the file is pertinent to the model presented in the paper and contains all the variables required in the given model.

in_t is no of inbound trucks

out_t is no of outbound trucks

in_d is no of inbound service docks

out_d is no of outbound service docks

cost operational cost corresponding to a unit pallet movement from inbound service dock to outbound service dock

transfertime operational time required for movement from inbound service dock to outbound service dock

penalty penalty cost based per unit item to be transfer from inbound truck to outbound truck

palletstransferred no of pallets required for the movement of items, based on the quantity of material to transfer from inbound truck to outbound truck

quantity quantity of material to transfer from inbound truck to outbound truck

in_arr_dep Arrival and Departure time of inbound trucks

out_arr_dep Arrival and Departure time of outbound trucks

Ch Material handling cost per unit item to be held in the temporary storage area.

The file also contain self explanatory pre-processing variables

v Pre-processing variable to show if the quantity requires material handling

si Pre-processing variable for sequence of inbound trucks

so Pre-processing variable for sequence of outbound trucks

Please note that this file only contains the data used for the deterministic model, the variation of uncertain data is calculated on the basis of this model, however, this does not define the uncertain parameters used in the paper.