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INF379 - Assignment 1 – Random Feasible Solution to Transport Problem

This assignment consist of the following files:
- **«Assignment1.pdf»:** This file...
- **«Assignment1.m»:** The matlab code file that imports data from the provided input data file *«Call_18_Vehicle_5.txt»*, then generates random solutions 10 000 times and saves all feasible solutions in a matrix as well as the best solution. In the end the file prints the first and best solution along with the iteration steps and plots all objective function solutions against the feasible solutions.
- **«Assignment1Plot.pdf»:** The plot from running the program (from the run described below)

Example output from the «Assignment1.m» is as follows:

The first feasible solution was found after 65 iterations:
Vehicle 1: 17 17
Vehicle 2:
Vehicle 3: 4 4
Vehicle 4:
Vehicle 5:
Not transported: 8 1 8 5 13 13 18 5 16 16 1 18 14 14 6 3 3 6 15 15 7 7 10 10 9 9 11 12 2 12 11 2
The objective function of the first solution was 8448392

The best solution of the 10000 iterations was found after 649 iterations:
Vehicle 1: 9 9
Vehicle 2: 13 13 7 7
Vehicle 3: 10 10
Vehicle 4: 8 8
Vehicle 5: 1 1
Not transported: 14 4 4 14 18 3 17 3 17 2 18 16 2 12 15 16 6 6 12 15 11 11 5 5
The objective function of the best solution was 6230543

Plot from above run (see also «Assignment1Plot.pdf»: