

TRANSPORT – Optimization and Simulation

Issues about high transportation costs and poor service levels? Our advanced transport scheduling technology will support you! Save money and time with automated and optimized transport plans.

Transport Optimization

Transport Optimization and scheduling: high cost and high variability typically affect the management of a fleet (trucks, vans, emergency equipments, ships). For example to supply some hundreds of Stores with 50 trucks may have different possible



solutions and the daily cost can easily vary from 7 to 10 K€/day and it depends on how the Transport is organized. At the end of the year the cost difference could result in some hundreds of K€ or even millions. The scheduling must consider resources availability, and several constraints.

BEST Tour is a powerful transport scheduler that allows to optimize the daily transport and the use of the fleet guaranteeing service levels. You can set constraints that must be respected like time windows, compatibility between vehicles and destination sites, compatibility between goods and vehicles type and so on. **To optimize transport moreover may have different means depending on the specific context.**



In some cases it means to minimize kilometers, in others to reduce the number of vehicles used and in others again minimize a specific cost functions that

combine more aspects. ACT transport scheduler BEST Tour let you to manage all that. Considering operatively, people of the transports office know that under certain conditions some constraints are not completely rigid but could be in some terms violated in order to obtain flexibility. We have considered in our technology all these kind of aspects to support you with an high flexible tool that optimizes giving you, at the same time, the needed flexibility. We use fuzzy logic, for example, to manage constraints. You can use the technology either as a product either as a optimization engine inside your IT application that provides the schedule service when involved.

Transport Simulation

Why to simulate a transport process?

- to estimate the costs and service level under certain conditions;
- to evaluate the impact of new regulations;
- to dimension fleet and resources;
- to evaluate the impact on service level and cost of the randomness;
- to evaluate the impact of changing in the distribution network.



There are more approaches and more levels of details to model and simulate a transport process. For example we may or not need to simulate the tours. The proper

level of abstraction is one of the key of success: while, a too high level may result in enormous difficulties and effort that will not be paid back, a too low level will bring to poor, or even false, results.



Let's, for example, cite contracts or constraints that affect the real process and that have to be modeled. A mix of theory,

piratical know-how and technologies are needed to success in a simulation project for transportation. We typically combine more technologies depending on the aim of the simulation model.

We have a powerful Simulation platforms and a wide variety of mathematical tool to manage in the proper way a simulation for transport. The ACT Solutions specialization and innovative technologies (such as Arena and Best Tour) allow you to achieve the objectives clearly and quickly. Why risk? Do not hesitate to contact our experts for any questions or a free pre-analysis.