

RoadRunner : a software solution for the strategic planning of transportation networks

RoadRunner is a software solution that addresses key problems in the strategic planning for transport management. RoadRunner can be used to effectively manage any part of the transportation network, but the largest benefits are obtained if there is control over the complete transportation network under direct management.

RoadRunner provides a global, strategic framework designed to compensate for the impacts of information uncertainties, and leaves the local or tactical choices up to the individual client. In particular, RoadRunner guards against problems of interruptions in the ability to supply stock.

RoadRunner consists of two main components. The first determines the appropriate transportation network given a spatially distributed cost structure, a set of origin and of destinations sites, and a variety of constraints on the transportation network. The second determines the strategic organisation of the network into regions and indicates the temporal steps by which the transportation network should serve those regions.

Three main kinds of network are handled. Resource (or harvesting) transportation networks are concerned with accessing raw materials and moving them to transformation plants. Delivery transportation networks move goods from processing plants to distribution outlets. Full networks deal with the whole problem, including optimal spatial placement of processing plants.
