

LINKLogistics™ Route Optimisation for the Supply Chain

Key Benefits:

- Improved driver productivity through route optimisation & informed planning
- Faster and more accurate decision-making using real-time information
- Reduction in fleet size via improved utilization of resources.
- Reduced administration costs for all deliveries and collections
- Measure, benchmark & monitor driver performance to continuously improve customer service levels
- Reduction in carbon footprint through reduced fuel consumption.
- Move from 'reactive' to 'pro-active' processes
- Stand alone or fully integrated real time interaction with systems (ERP, TMS) and devices (on board handhelds)

LINKLogistics™ provides essential optimisation for inbound and outbound transportation. This is suitable for any organisation providing transport services to both external and internal customers.

By using the latest Microsoft technologies LINKLogistics enables management to explore a number of cost saving scenarios. This helps to improve profitability while competing effectively using dynamic real time information.

The advanced optimiser module within LINKLogistics provides transport planners with a tool that aims to minimise working time or driving distance to achieve any set of collections and deliveries within a given set of resources.

Input to the optimiser consists of available vehicles, available drivers and a set of jobs representing quantities of goods to be collected and delivered from various locations. The optimiser then uses an evolutionary algorithm to minimise the total working time or total driving distance in order to efficiently plan the trips.

The solution consists of proposed trips (sequences of pickup and drop operations matched to the original job requests) with assigned vehicles and drivers.



Strategic or Tactical?

The optimiser can be used effectively in two different situations. In “strategic” mode, the user feeds the system with entirely theoretical information about drivers, vehicles and job requests. After the optimiser has run, the planner can see the impact and run a number of “what if” scenarios. This facilitates more efficient and cost effective journey planning.

Strategic mode can also answer questions like:

- If new business was won from customer X, how much extra mileage or working time would be needed to accommodate this alongside current business?
- If this business is serviced from depot A or depot B, which is the more cost effective?
- If the composition of the vehicle fleet were changed, how would that affect utilisation?

When used in “tactical” mode, the optimiser can be used with real time information about vehicles, drivers and job requests every time a new shift or days work is planned.

In tactical mode the transport planning function can be either fully integrated with Anglia’s existing LINKLogistics supply chain solution or configured to work with your existing business management platform.

Anglia’s LINKLogistics suite includes:

- Real-time inventory and warehousing system for “own” product and third party goods
- Pallet, lot and serial number tracking
- Distribution packaging module for CHEP pallets
- Receive, put-away, pick and despatch applications on mobile devices
- Plan transport requirements directly from live transactions. These include sales and purchase orders (own inventory) or third party instructions (receive / despatch).
- Warehouse and driver documentation – loading lists, manifests, despatch notes
- Contract pricing and billing functionality

Further, using the LINKLogistics system, plans generated by the Optimiser can be translated into action immediately. Actions taken in the “live” system inform future planning immediately. Figure 1 explains how this works:

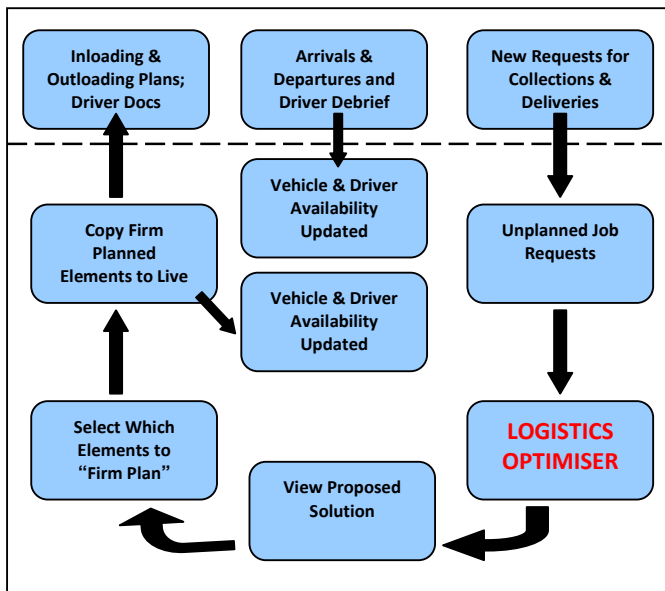


Figure 1: Flow diagram showing how Logistics Optimiser is used for tactical planning

The Optimizer contains a sophisticated planning engine that can handle many different kinds of business requirement:

Job Requests

- Pickup and drop
- Booking times
- Mixed units
- Quantities and weights

Vehicles

- Multiple types
- Maximum capacity
- Maximum weight
- Driving licence class
- Unavailable time
- Finish at location (optional)

Addresses

- Long/lat from postcode
- Show location on map
- Adjust location on map
- Opening times for pickups and drops
- Pickup time per visit / per unit
- Drop time per visit / per unit
- Vehicle access rules

Drivers

- Licence class
- Start time
- Maximum working hours
- Maximum driving hours
- Start of shift time
- End of shift time
- Finish at location (optional)

Journeys

- Auto acquire distances
- Auto acquire driving times
- Display / print driver navigation info between any two points

Trips

- Combine job requests
- Split job requests
- Multi pick-up / multi drop
- Control types of goods travelling on the same vehicle
- Maximum wait time prior to booked arrival

Anglia Business Solutions Ltd

Harston Mill, Harston, Cambridge, CB22 7GG, UK
 Tel: 44 (0)1223 873400 Fax: 44 (0)1223 873401
 email linklogistics@angliabs.com URL www.angliabs.com

