CATALYST logistics

LogiMap

Overview

The Supply Chain Control Tower

LogiMap.

Radically reduce the cost of your Network...

Overview

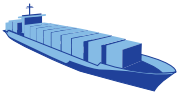
LogiMap is a logistics network mapping and modelling toolset. It provides a powerful set of capabilities for analysing networks of demand, transhipment, inventory storage and supply locations and the transportation links between them.

LogiMap is a highly fluid and configurable toolset that is tailored to the organisation thus delivering ease of use and a short learning curve.

LogiMap utilises leading Microsoft mapping, database and web technologies to deliver highly configurable network modelling tools for supply chain analysts and managers. LogiMap can be installed on your own IT infrastructure or we can host the application for you thus avoiding additional loading on internal IT resources.

Network Planner

Network Planner allows comprehensive network capacities, environmental impacts and projected costs of operation to be modelled.



It utilises business operational and planning data and an innovative event based planning tool to forecast logistics activity levels.

Alternative transhipment and inventory storage locations are modelled to connect points of demand and supply together using multi-modal, national and international transport links as required.

Warehouse Planner

Warehouse Planner models the configurations, capacities and footprints of transhipment points and distribution centres.

Transport Planner

Transport Planner is used to determine transportation requirements, capacities, environmental impact and costs for a variety of road, rail, sea and air links between transhipment points, distribution centres and points of supply and demand in the network.

Inventory Planner

Inventory Planner compares alternative strategies for deployment of inventory and the associated trade offs between customer service, inventory levels and working capital costs.

LogiMap Cube

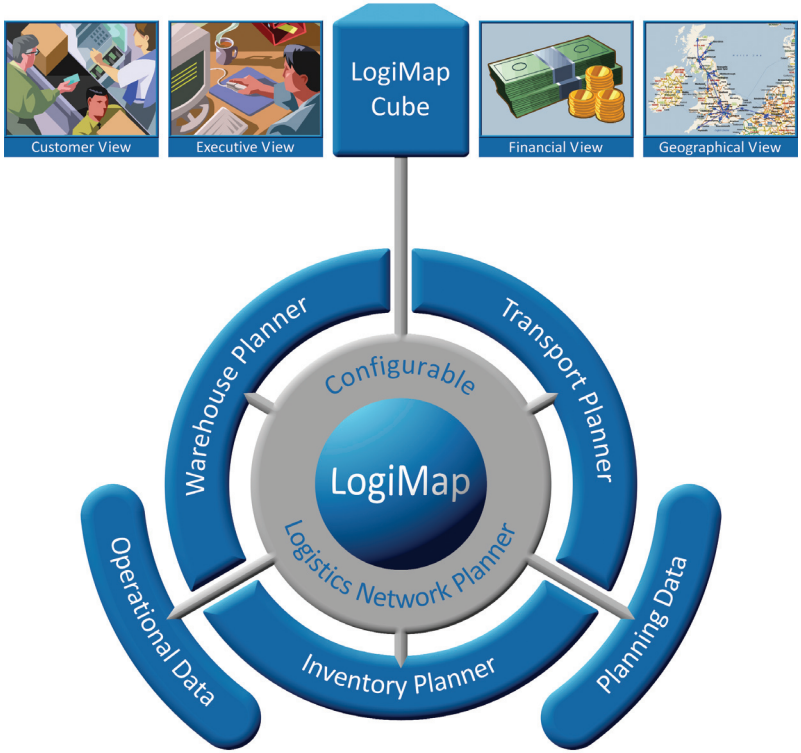
LogiMap Cube provides a 'Control Tower' view of the logistics network for Supply Chain owners. Flexible reporting and query management facilities are provided to generate customer, financial, geographical and executive views of the logistics network.

LogiMap
Overview

We have used LogiMap very successfully with a number of our clients. Typically we have identified multi-million £ savings, many times the investment in our software and services!

For the very latest news and information please see our website at **www.catalyst-logistics.co.uk**

Supply Chain Control Tower



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LogiMap Toolset Features

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Overview

LogiMap is our leading logistics network modelling toolset. LogiMap is highly configurable from the comprehensive feature set below. By configuring only the features that you need LogiMap is very easy to learn and use.

LogiMap Features

Logistics Network Planner	
Network Computation	• Automated capacity balancing • Production capacity / service / storage trade offs • Total network costs
Network Data Maintenance	• Logistics territories • Multi-modal terminals • Import routes and costs • Primary transport routes • What-if parameters
Scenario Management	• Create new scenario • Copy scenario • Amend scenario • Delete scenario

Warehouse Planner	
Warehouse Computation	• Distribution centre / transhipment capacity calculation • Time based simulation of distribution centre processing
Warehouse Data Maintenance	• Distribution / transhipment centre details and costs • Distribution / transhipment centre type details • Storage types • Engineered standards • Activity times, resources and costs
Transport Planner	
Transport Computation	• Primary transport vehicle type and load requirements • Secondary transport vehicle type and load requirements • Time based simulation of vehicle movements
Transport Data Maintenance	• Transport modes • Vehicle types • Timed vehicle schedules • Fuel costs and surcharges
Inventory Planner	
Inventory Computation	• Safety and cycle stock requirements
Inventory Data Maintenance	• Lead times, review times, MOQ's, service levels
Inventory Forecasting	• Bottom up forecasting by product / product group

LogiMap Toolset

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Planning Data Processing	
Planning Data Import	• Volume forecasts
Forecasting and Event Management	• Top down operations forecasting • Copy history to forecast • Maintain and apply events – forecast adjustments
Operational Data Processing	
Operational Data Import	• Customers • Delivery points • Suppliers • Supply points (production and product supply) • Supply volumes • Detailed shipment header and line history • Product details and costs • Product groups • Pricing and discount structures • Inventory positions • Transport rate tables
Pre-Processing	• Demand volume summarised by postcode area / district / sector / unit • Time and distance from nodes calculation
LogiMap Cube	
European & Worldwide Mapping Displays	• Demand volume-density • Depot network • Depot boundaries • Postcode areas • Customisable territories • Backhaul opportunities • Volume by customer by territory • Load and drop patterns
Reporting, Graphing and Analysis	Performance Measures • Supply chain costs • Unit volume • Revenue • Net contribution • Loads • Shipments and lines • Transport requirements • Labour requirements • Storage space requirements
	Analysed By • Territory • Customer • Product group • Distribution / transhipment centre • Time period • Supply chain function

Technology

LogiMap has been developed using standard Microsoft .Net technologies including C# and SQL Server.

Second Generation LogiMap is sustainability-enabled and is provided on our hosted web platform utilising Microsoft's ground breaking Virtual Earth mapping service. This has the following additional benefits:

- No impact on your internal IT resources
- Accessible from any internet connection
- Latest map data from online sources
- Structured for sustainable logistics support
- Visibility of the results to a wide audience
- Report generation facilities
- Data extracts into office tools such as Excel

For further information see:

www.catalyst-logistics.co.uk

LogiMap Case Study

Eden Springs

Highlights

- Leading water cooler supplier
- UK logistics network redesign and depot capacity planning
- Substantial cost savings proposed and an ongoing LogiMap strategic modeller

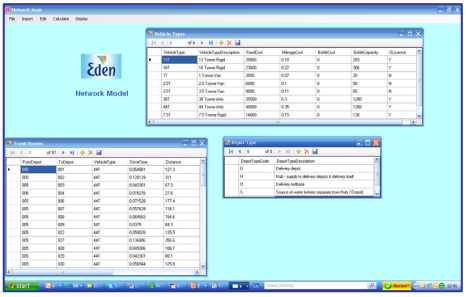
The Business

Eden Springs is the UK's number one water cooler supplier. Eden's leading role in the cooler arena is not confined to its British activities:

- The group is No. 1 in western Europe servicing more than 500,000 customers in over 18 countries
- Specialises in the supply and service of bottled and plumbed in water coolers, hot water boilers and the national distribution of small-pack (500ml) bottles
- Distribution points throughout the country giving a direct service to all of its 90,000 customers across the UK

The Challenge

Eden's question to us was essentially "What is the right number of depots to run our operation at minimum cost?"



In answering this question we would also consider the type and size of hubs, depots and outbases as well as their locations and capacities.

The Approach

We used LogiMap to configure a specialist model of the Eden Springs UK network. LogiMap makes extensive use of mapping visualisation to assist the analysis and design of the network.

In particular, we:

- Modelled water sources, hubs, secondary depots, primary transport links, secondary transport links and cooler servicing routes
- Imported operational data into the model
- Allocated customer groups automatically to the nearest (drive time) depots
- Built in a capacity balancing algorithm to account for depot capacities in terms of warehouse space, yard space and O licences
- Automatically re-balanced customers between depots where capacity was constrained.

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The end result of the network model was a total logistics network cost calculation which allowed Eden to evaluate alternative depot locations and network structures.

Since depot capacity was a key consideration we then:

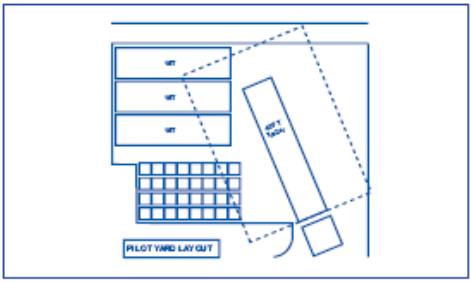
- Developed a depot capacity planning model
- Balanced water storage capacity with yard loading and parking
- Determined how much additional capacity could be fulfilled through the network
- Ran a physical pilot of this model with a typical depot
- Proposed and implemented a new depot layout that would allow the depot to considerably increase its capacity.

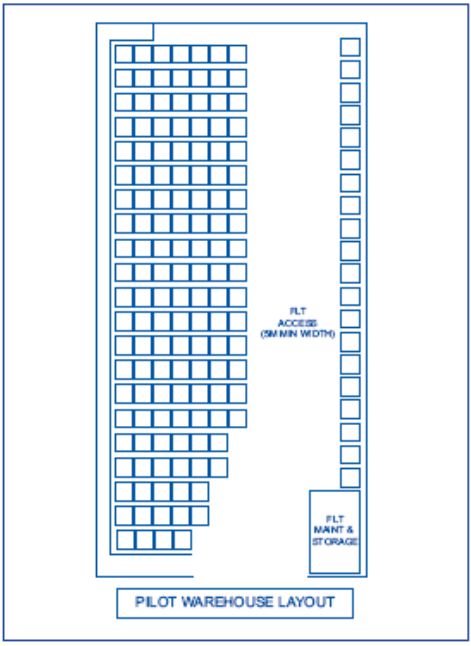
The Results

The overall network study generated significant benefits that included:

- Identifying substantial savings available from consolidating the network
- Provided substantial capacity for growth
- Quick wins from improving the existing allocation of customer groups to depots.

Most importantly, Eden now have network planning tools highly configured for the business which can be used to design alternative network strategies as the business grows.





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LogiMap Case Study

Sample Applications

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The Businesses and Their Challenges

The following sample applications demonstrate the different ways in which our clients have used LogiMap to optimise their logistics networks.

Small Parts Distribution

This distributor of small parts could not tell which parts of its business were profitable and in particular, which customers were profitable once logistics costs were fully accounted for.

We used LogiMap to model full activity based costs through the products' life cycle with the company. These included order processing, warehouse handling, storage and transportation costs, allowing for the differences in the cost of handling different products at each stage of the process.

The mapping displays produced by LogiMap proved very helpful in understanding how customer profitability was related to customer delivery distance and drop density amongst other aspects.

Express Logistics

This leading express logistics company needed to determine the right structure for its high volume line-haul operations. There was also a need to determine the optimum number of depots required to serve its UK customers at minimum cost.

We initially configured LogiMap to model the line haul network on a static basis. We subsequently extended the model to incorporate a full time based simulation to demonstrate vehicle arrival patterns and hub sorting schedules across the network.

Construction Materials

A leading supplier of bulk construction materials needed to determine which of a series of import and UK distribution strategies was the least cost approach.

We configured LogiMap to model alternative mainland Europe and Middle East sources of production and multiple routes and transport modes to bring the product into the UK. In the UK we also compared port-centric and central distribution hub alternatives and calculated the full costs of the alternative scenarios.

Drinks Industry

For this leading drinks wholesaling business we configured LogiMap to forecast operational volumes using our unique event based forecasting approach.

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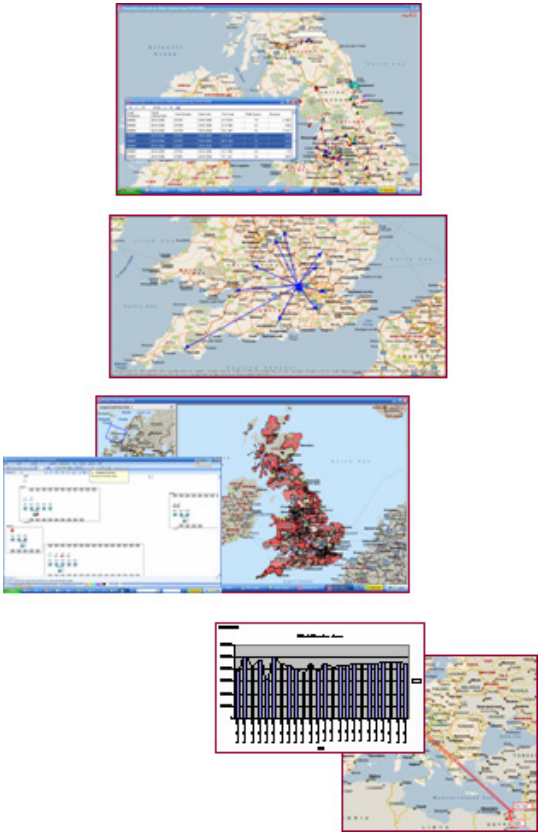
The resulting forecasts were then applied to a detailed hub capacity model which generated full manpower requirements plans for the forthcoming trading periods.



The Results

Each of the companies featured here identified benefits many times the costs of the products and supporting services from Catalyst.

The benefits obtained included:

- Identified substantial opportunities for earning revenue from back hauling
- Highlighted low net profitability products and customers that needed to be addressed
- Identified the least cost configuration of depots to serve the UK network
- Identified major opportunities to remove costs from the primary transport operation
- Determined the required schedule for automated national sorting operations
- Calculated the least cost combination of import routes and distribution strategies across a range of transport modes and port and hub locations
- Determined optimal manning requirements for the central distribution operation.

This is a small selection of the projects that we have carried out using the LogiMap toolset.

For more information see:

www.catalyst-logistics.co.uk