



Scheduling & Routing Optimization

# AutoDispatch™

## Optimize your operations Automatic Truck Assignment Routing and Scheduling Software

AutoDispatch is the best automatic logistics delivery decision support system around the world. It has the quickest optimization calculating engine as well as excellent performing functionality. AutoDispatch is developed integrating the real-world delivery know-how and experienced dispatch skills. Moreover, with the exclusive Matrix intelligent network travel time estimating technology, it is easy for users to deal with the huge and complex dispatch problem and get the optimal schedule and routing plan in few minutes even if there are thousands of customers and orders. AutoDispatch can improve the efficiency of logistics decision making and performance of operation. It can not only help you achieve the goal of minimizing delivery cost but also be able to fulfill various kinds of delivery requirements, constraints and conditions to cultivate the long-term competitiveness.

### Support Delivery and Pick-up Operation at the Same Time during One Trip

It is expected to utilize the capacity of vehicle efficiently by building a dispatch plan considering delivery and pick-up operation at the same time. AutoDispatch is not only able to distribute the delivery orders and pick-up orders to the most fitting vehicle but also be able to build a dispatch plan that allows the vehicle conduct the delivery and pick-up operation at the same customer site when there are both delivery and pick-up requirements in the same order.

### Support the Delivery Sequence from Farthest to Nearest

AutoDispatch will automatically determine to deliver the farthest customer site first to avoid the traffic congestion zone or the traffic control time period as well as plan the optimal routing sequence considering the distance constraints of other customers when vehicle return to depot to reflect the practical dispatching demands.

### Support Various Kinds of Restrictions and Delivery Conditions

Support several delivery restrictions and conditions such as available time of vehicle, designated vehicle type, designated vehicle, designated fleet (Transport Company),

goods mix-load restriction and intelligently deciding the best delivery time for multiple designated delivery time windows. System will consider both weight and volume capacity at the same time while loading packages. Moreover, system supports setting multiple measurements such as ft3, pallet, rack and box freely as well as supports the application of dual temperature vehicle and tank lorry with multiple loads to completely fulfill the requirements of practical operation condition. Users can easily define all the delivery restrictions and conditions via all the management interface of the system.

### High-Speed Automatic Calculating Engine

The intelligent calculating engine of AutoDispatch is a revolutionary breakthrough in optimization technology. It is developed by employing Meta-Heuristics algorithm of Mathematical Programming having the incomparable calculating performance and being able to generate optimal solution for various kinds of delivery models, restrictions and delivery conditions. No matter thousands of orders or how complex the combinational condition is, the dispatch plan could be complete in few minutes. Whenever productivity changed or quantity of orders increased, the dispatcher can use the function of "Re-Schedule" to immediately and easily re-schedule the dispatch plan under the condition that all the previous vehicle schedule and plan remain unchanged.

### Intelligent Street Level Network Analysis Technology

AutoDispatch's advanced Matrix network travel time estimating technology has the most cutting-edge advantage. It provides the function that allows users to set various models of driving speed for each level of roads (High way, Express way, Local street) under different conditions such as rush hour, weather or climate factor to analyze travel time automatically. Users can set the driving speed limit for frequently congested road section and blocked roads or select to consider highway or not while doing the routing. It has the excellent capability of considering thousands of customer locations at the same time and schedule the optimal delivery sequence and routing automatically.



Digital Map: Google Map

### Intuitive Interface

AutoDispatch's intuitive interface makes it much easy for users to learn and manipulate. All the functionality can be easily figured out and understood even if for the first time user. The one who has the experience of using Microsoft Outlook also has the basic operating ability. AutoDispatch is developed on the basis of Microsoft .Net Framework 2.0 technology. It has the features of easy learning, clear and visual designing, flexible and supporting Multi-Language interface that help enterprises quickly build up their transnational logistics decision support system.

### Support Multiple Dispatchers and Multiple Delivery Dates

AutoDispatch is one of the few logistics decision support system that completely support Microsoft® SQL Server™ 2000 / 2005 database. It is able to allow dispatchers to build up dispatch plan on the same day, next day or even pre-schedule for several days in advance. AutoDispatch provide friendly and useful database build-up function, dispatchers don't need to key-in the fundamental data repeatedly because of different delivery operation. Different dispatch plans can interact with others and integrate with existing ERP and WMS seamlessly.

### Visualized Dispatch Plan

AutoDispatch visualized schedule viewer has the intuitive designing Gantt chart presenting in versatile style and displaying the data in hierarchical structure. Through click, drag and drop operation by the mouse, it can efficiently and immediately fulfill the dispatchers' information requirement to do the analysis and make the decision. The flexible drag-and-drop schedule editor allows dispatchers to exchange the delivery customers between vehicles or adjust the delivery sequence of customers. The Gantt chart and the routes of vehicle on the map will change simultaneously and alert if any terms of violation arose which makes the decision making and analysis more expedite and immediate.

**COPTIMAL**

## AutoDispatch Application

- Verify the cost of logistics delivery
- Build up daily schedule of vehicle dispatching
- Build up optimal routing and delivery sequence considering time windows restriction
- Re-analyze the logistics operation to lower down the transportation cost
- Provide the goods of the owner with the optimal dispatching approach, efficient delivery, and reasonable vehicle dispatch and schedule plan
- Provide outsourcing logistics service providers or carriers the efficient delivery plans to reduce logistics cost

## AutoDispatch Operation Models

- Build up batches of dispatch plans
- Build up Multiple-trip dispatch plan
- Build up both Delivery and Pick-Up plans
- Single Depot Co-Delivery Plan – Loaded in one depot and deliver to multiple destinations
- Multiple Depots Co-Delivery Plan – Loaded in different depots and deliver to multiple destinations
- Milk Run Delivery Plan – Loaded in different sites and deliver to one depot

## AutoDispatch Effects

- Automatically calculate the most economical number of vehicle and optimal routing sequence to reduce logistics cost by 10-25%
- Automatically generate the picking list of multi-stop vehicle schedule to improve the efficiency of picking operation and shorten the time of loading
- Automatically estimate the arrival time, departure time and load/unload time to handle the delivery efficiency in advance.
- Comply with customer's specified requirements including the arrival time windows, vehicle types, or vehicle to provide distinctive logistics delivery service
- To standardize dispatching and delivery planning to eliminate the individualized factor in dispatching operation

## AutoDispatch Applicable Scope

- Days of dispatch plan: unlimited (365 days)
- Amount of orders: unlimited
- Amount of goods: unlimited
- Amount of costumers: unlimited
- Amount of depots: unlimited
- Amount of vehicle types: unlimited
- Amount of vehicles: unlimited

## AutoDispatch System Requirements

For Microsoft Windows Vista :

CPU: Intel Pentium 4 or AMD Athlon, 3.0GHz above  
OR Intel or AMD Dual Core Processor, 2.0GHz above

- Memory: 2GB RAM
- Hard Drive: 1GB free space
- Graphic Card: 1024\*768 resolution above ,supports Direct3D®

For Microsoft Windows XP SP2 :

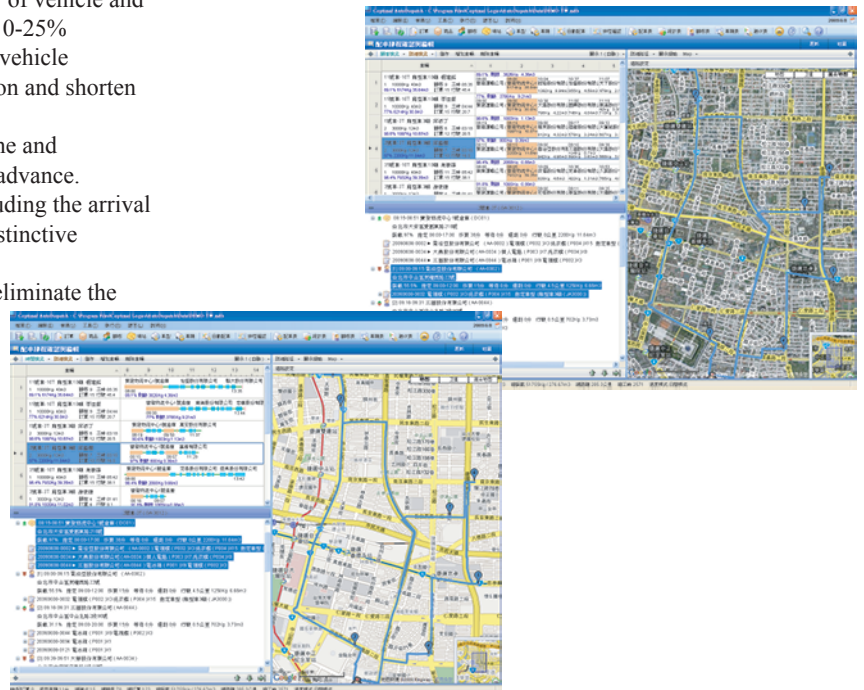
CPU: Intel Pentium 4 or AMD Athlon, 2.2GHz above  
OR Intel or AMD Dual Core Processor, 1.6GHz above

- Memory: 1GB RAM
- Hard Drive: 1GB free space
- Graphic Card: 1024\*768 resolution above, supports Direct3D®

For Microsoft Windows 2000 SP4 :

CPU: Intel or AMD Processor, 1.0GHz above

- Memory: 512MB RAM
- Hard Drive: 1GB free space
- Graphic Card: 1024\*768 resolution above, supports Direct3D®



## About Coptimal

Coptimal Logics is founded in 2002 by a professional R&D team, which has the background in Mathematical Programming and Operation Research, and is the only corporation in Taiwan that has Combinatorial Optimization technology and the capability of developing optimization engine. Coptimal Logics specialize in decision support system and visualized solution in logistics and supply chain optimization. We carry out our technology to being a product in order to let the users not only can “see” during the operation but also be able to simulate optimal solution visually in advance at the first stage of operation process and then verify the real operation to apply the optimization technology flexibly and improve the quality of decision making to increase the efficiency in production and create the strength in competition by making maximum profit.

**COPTIMAL**

COPTIMAL LOGICS INC.  
<http://www.coptimal.com>  
E-mail: [info@coptimal.com](mailto:info@coptimal.com)

10F-4, No.24, Jilin Rd.,  
Taipei 104, Taiwan  
TEL: +886-2-2523-7972