



*Advanced Planning & Scheduling and  
Supply Chain Optimization solutions  
for Parcel and Express Logistics*



## INTELLIGENT PLANNING AND OPTIMIZATION TO REDUCE COSTS AND INCREASE OPERATIONAL EFFICIENCY

### PLANNING FOR SUCCESS IN A CHANGING MARKET

The Parcel and Express market is undergoing rapid changes, with swift fluctuations in parcel volumes on one hand offset by a more complex business landscape on the other. Trends such as increased competition, rising expectations for flexible and fixed-time delivery schedules, tighter environmental requirements and expanding B2C deliveries are together forcing Parcel and Express operators to rethink their business strategies.

Exceptional Parcel and Express operators distinguish themselves by outperforming the market norm for reliability, speed and cost-effectiveness, and by offering tailored services and guaranteed service levels, such as next day and before 9:00 am deliveries, SMS delivery notifications, and more. In addition to improving and diversifying services, Parcel and Express operators need to extend their geographic coverage – while reducing their operating costs.

In this environment, operational efficiency and flexibility are vital to the financial success of any Parcel and Express company.

Quintiq helps Parcel and Express operators meet these challenges by providing an integrated set of advanced and adaptive planning systems, optimized for the Parcel and Express environment. The Quintiq Parcel and Express Planning Solution enables you to make optimal use of resources, to improve service quality, flexibility and reach, and to successfully introduce new services – with maximum cost effectiveness.

### EFFECTIVE PARCEL AND EXPRESS PICKUP AND DELIVERY PLANNING

The key to achieving operational efficiency is integrating all commerce, pick-up & delivery (PUD) and network operation processes so that your entire organization is focused on common goals.

Reliable and optimized medium-term tactical planning that guarantees any shipment is accepted against the lowest costs and highest margin is essential. However, only by combining tactical planning with robust short-term operational scheduling one can achieve operational excellence. Furthermore, adding real-time event management to handle daily disturbances enables you to optimize all processes on all planning levels. Quintiq provides immediate insight into the effect of planning decisions on your key performance indicators. The result: operational efficiency, organizational and service flexibility, customer satisfaction and financial success.

The Quintiq Parcel and Express Planning Solution fully supports the planning and optimization of all your Express services, including (PUD) as well as sorting and network operation processes. It provides an integrated solution for tactical planning, operational scheduling and real-time event management. Quintiq, being the only solution that supports multiple structures, offers the unique ability to integrate multiple networks by planning across air schedules, sorting centers, charters, road networks and PUD services.

### THE QUINTIQ PARCEL AND EXPRESS PLANNING SOLUTION

The Quintiq multi-resource planning application suite includes the following features:

#### Company Planning

- Supports the commercial division by addressing order acceptance and sales quoting
- Enables online confirmation of PUD time windows and costs.

#### Network Planning

- Generates optimal services, timetables and line hauls,

In today's tough Parcel and Express environment, tight cost management, exceptional customer service delivery and the ability to quickly adjust to market changes are fundamental to the success of your company. Understanding the complex needs of Parcel and Express operators, Quintiq provides a full range of powerful planning solutions that can support your current processes and promote your business growth.



Network Planning

#### KEY BENEFITS:

- **Integrated planning** – PUD, network and depot operations are coordinated real-time to synchronize the flow of activities and push the buffers out of the organization.
- **Service flexibility** – Easily and quickly offer new or tailored services while taking advantage of commodity costs.
- **Exceptional customer service levels and service quality** – Attain a strong competitive position.
- **Significant PUD cost savings** – Benefit from efficient resource utilization and increased productivity.
- **Fewer tours** – Reduced by real-time dispatch and the elimination of ad-hoc tours.
- **Significant savings in network operation costs** because of better volume-capacity balancing.
- **Improved utilization of capacity** through efficient assigning of vehicles and personnel on a daily, weekly and monthly basis.
- **Reduced labor costs** – Optimally align workforce supply with parcel processing demand.
- Reduced fuel consumption** – Improve environmental friendliness and save on fuel costs through efficient tour generation, integration with telematics, and improved first-time delivery rates.
- **Company-wide visibility into operations** across all planning levels.
- **Exceptional and profitable delivery performance** – Choose the most profitable deliveries and confidently stand behind flexible delivery schedules.

directs parcels through the network and ensures optimal network-wide resource utilization by balancing forecasted needs with the actual resources, such as vehicles, depots/hubs, charters and drivers

- Evaluates the effects of network changes, such as the introduction of a new depot.

#### Resource Planning

- Provides the efficient use of capital and labor resources by determining the most effective schedule
- Aligns workforce supply with the parcel flow; generating optimal labor rosters based on production schedules
- Assigns tasks to people for the day of execution to create greater throughput in sorting centers.

#### Pick Up & Delivery Planning

- Generates optimized PUD tours on a tactical planning level, reducing the need to rely on geographically knowledgeable drivers
- Supports parcel dispatch to depots and tours
- Supports dynamic route planning – Tours are generated as late as possible, on the day-before-operation or even during the day-of-operation, based on the PUD addresses and time windows
- Diary Management – Enables you to offer flexible delivery time slots to your customers, taking into account service levels, customer preferences and other parameters
- Balances the distribution of parcels to depots based on the capacities of the depots (depot load balancing)
- Ensures the efficient assignment of drivers, vehicles and carriers to meet customer delivery requirements, improving first-time delivery rates, minimizing card left situations and reducing costs
- Takes into account all business specific rules, e.g. delivery address characteristics and constraints
- Integrates with navigation and telematics systems, enabling timely response to disturbances and quick, cost effective rectification of missed pick ups/deliveries.

#### SUPERIOR ANALYTIC CAPABILITIES FOR ACCURATE DECISION MAKING

With shrinking reaction times, decision-making must be quick and accurate. To measure the quality of planning decisions, Quintiq compares operational performance against resource utilization, employee satisfaction, customer service levels and other KPIs. This enables you to instantly understand the quality of any plan. For example, before bidding on a new tender, you will have clear insight into how the contract will affect operations by performing 'what-if' scenario analyses to discover hidden costs and benefits.

Moreover, Quintiq offers a veritable treasure chest of management information based on your business data and analyses of deployment, availability and planning trend sets. The user-friendly interface makes interaction between the planner and system direct, fast and intuitive. Individual planners choose the visualization according to their specific planning requirements, creating insightful displays of data that enable them to make informed and effective decisions. This results in a system where the planner is always in control.

#### INTEGRATION WITH OTHER SYSTEMS

Integration with other IT systems is essential to any advanced planning and optimization system. The Quintiq technology is able to integrate with external systems (ERP, HR systems, sorting machines, handheld devices) using a multitude of technologies, including XML, ODBC, SOAP and many others.

#### A PERFECT FIT FOR TODAY AND TOMORROW

Because every express delivery company has its own specific planning preferences and requirements, having a planning and scheduling solution customized to your organization's needs is essential.

Conventional software is built upon parameters. This results in an incomplete fit with organizations' specific planning requirements and compromises planning quality and relevance. The Quintiq Parcel and Express Planning Solution is a fully configurable solution based on the uniform Quintiq technology core. Quintiq technology is a business logic-driven planning platform: any business rule or constraint can be easily defined in the system. This means Quintiq has the unique ability to create an exact fit with your organization's needs.

And, because the Quintiq solution is flexible, it will meet your future planning and scheduling needs, supporting even rapid and substantial growth. This gives you the best of both worlds: the perfect fit of a tailor-made system with the long-term scalability and upgrade benefits of a standard solution.

In addition, fast implementation sets Quintiq apart from its competition. Quintiq has developed a standard project methodology: the Quintiq Project Life Cycle (QPLC), which enables fast and easy deployment. A fully serviceable and customized solution can be delivered and implemented quickly, with many users experiencing a payback time of just 6 to 18 months.

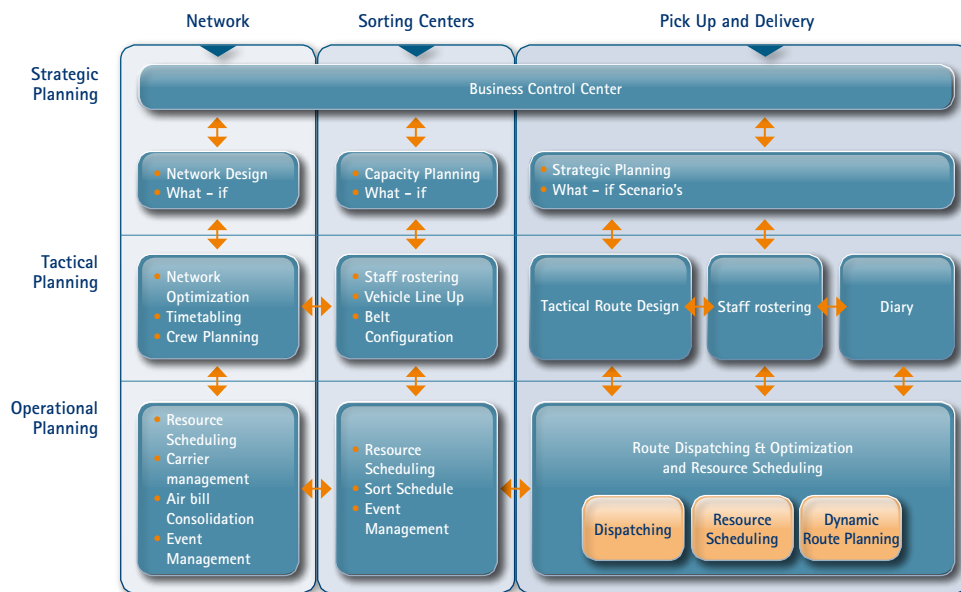


CHARLIE DOBBIE,  
EVP GLOBAL NETWORK  
OPERATIONS, DHL EXPRESS:  
"Quintiq will become the global  
standard for planning and  
dispatching for DHL Express"

NIGEL BARTON,  
DIRECTOR STRATEGIC  
OPERATIONS, TNT EXPRESS:  
"With the choice for Quintiq we  
now have a platform for all our  
IT planning applications within  
TNT Express and can thereby also  
increase our customer service  
levels."

FRED SNIPPE,  
CEO, ROBERTS EUROPE:  
"By providing the core for our  
most critical business processes,  
the Quintiq solution will be a key  
growth enabler, supporting our  
goals to become the leader in our  
market."

## FUNCTIONAL OVERVIEW



The functional overview highlights all areas where Quintiq could support your business processes, a specific solution can comprise of one or more particular areas.

## SELECTED REFERENCES

### DHL Express

DHL is the global market leader of the international express and logistics industry, specializing in providing innovative and customized solutions from a single source. DHL offers expertise in express, air and ocean freight, overland transport, contract logistic solutions as well as international mail services, combined with worldwide coverage and an in-depth understanding of local markets. DHL's international network links more than 220 countries and territories worldwide. Some 300,000 employees, including more than 40,000 employees in the U.S., are dedicated to providing fast and reliable services that exceed customers' expectations. DHL is a Deutsche Post World Net brand.

### TNT Express

TNT Express is an international market leader in global express services. Through their two divisions, Mail and Express, they pick up, transport, sort, handle and store packages in over 200 countries - and employ around 161,500 people.

### Roberts Europe

Roberts Europe is a leader in the premium freight market. This market segment handles items that cannot be transported by standard logistics service providers because of stringent time limitations or service requirements.

Roberts Europe is an independent company specialized in offering seamless solutions to complicated transport problems. Through their extensive ground network, that covers most of Europe, and worldwide air network, they provide their customers with individual, tailor-made solutions.

## ABOUT QUINTIQ

Quintiq focuses on providing Advanced Planning & Scheduling and Supply Chain optimization solutions. Specializing in supporting companies that work in complex, dynamic business environments, like companies in the parcel and express industry, Quintiq helps to improve business control, increase delivery reliability and reduce costs.

The company's headquarters is located in the Netherlands and it has subsidiaries in Germany, UK, Finland, Malaysia, China, Australia and the USA.

For more information: [www.quintiq.com](http://www.quintiq.com).