



Case study

Air Products optimizes further for better performance and service

The customer

Business:	Chemical manufacturing
Operations:	50+ countries worldwide
Size:	Over 20,000 employees
Annual sales:	Over \$10.4 billion (2014)
Quintiq solution:	Logistics planning

Air Products is an international provider of industrial gases, performance materials, equipment and services. Air Products innovations improve upon – and in many cases, make possible – a vastly diverse range of products, from running shoes to flat screen TVs, MRI equipment to sports cars, clean air to ice-cream. Air Products prides itself on having spent more than 75 years enabling its customers to become more productive, energy-efficient and sustainable. To reach over 170,000 customers who rely on their products, the company requires fast and reliable logistics operations.

The challenge

Air Products has been a Quintiq customer since 2010. Quintiq supports Air Products’ transportation planning and scheduling for three separate business areas – Liquid Bulk, Packaged Gas and CyroEase® service – in North and South America, Europe and Asia.

With Quintiq, Air Products has:

- Implemented a comprehensive integrated logistics planning solution
- Improved utilization of several thousand drivers and trucks to effectively make multiple deliveries per day
- Removed the planners’ burden of performing complex calculations to build a schedule
- Planned highly cost-effective, dynamic routes that reduce distances and empty miles
- Minimized the effects of network disturbances
- Achieved organization-wide transparency for better visibility and control
- Improved efficiency reporting capabilities to evaluate areas for improvement

“We chose Quintiq because of the breadth and scalability of their technology platform. We were looking for a best-of-breed solution that would work well with our current ERP system, but would provide us with the needed flexibility and functionality to fit our business.”

– Erik De Vos, Supply Chain Planning & Optimization Manager EMEA region, Air Products



A new opportunity

In January, 2015, a value scan¹ revealed that Air Products could improve its logistics operations even further by upgrading their Quintiq optimizer.

Quintiq optimization technology has surpassed more than 30 world records² in route optimization since April, 2013. The same technology is used by many Quintiq customers, now including Air Products. In the logistics solution for packaged gas, the optimization algorithm analyzes many different feasible options to choose the best combination of routes that (1) covers all demand and (2) does so in the most cost effective manner.

The upgrade is enabling Air Products to reduce costs, miles, and driver hours. Overall, the new technology is expected to yield an improvement of roughly 3% compared to the previous benchmark.

1 Value scans help customers identify areas and processes that could benefit from adjustments in their Quintiq solution. This ensures continuous top performance in a changing environment.

2 Vehicle Routing Problem with Time Windows (VRPTW) is one of the most studied problems in the field of combinatorial optimization. Read more: www.quintiq.com/optimization/vrptw-world-records.html



The future

The flexibility of the Quintiq solution enables some customers to make their own model configurations independently. Air Products has an internal QUILL³ team that manages a number of model configurations throughout the year based on end-user requests. In addition, every year since its first implementation, Air Products has continued to work with Quintiq for continuous improvements to their operations. Currently planned work extends through 2015 and into 2016.

³ QUILL is the Quintiq logic language used to define the behavior of the model. Read more: support.quintiq.com/doc/quill/quill



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