



## Transportation • Warehouse Optimization

*Solutions that work. Solutions that save!*

### Case Study: Kraft Foods Eliminates 6.2 Million Miles/Year Using Automatic Order Optimization (AutoO<sub>2</sub>), a.k.a. Super Truck

~ A summary of a presentation from the GMA/FMI conference by Pam Haining, Senior Director, Logistics Development, Kraft Foods – February 2011

[http://maxx.gmaonline.org/uploadFiles/17645200007DA.filename.Order\\_Optimization\\_and\\_Load\\_Size\\_Updated\\_Moore\\_Haining.pdf](http://maxx.gmaonline.org/uploadFiles/17645200007DA.filename.Order_Optimization_and_Load_Size_Updated_Moore_Haining.pdf)



Kraft Foods, a global powerhouse carrying an unrivaled portfolio of much-loved brands, realized that trailer weight and space capacity was being under-utilized by the orders they wrote in-house. These orders, for example, high-cost refrigerated shipments for inventory deployment and customer shipments (VMI – vendor managed inventory), were averaging only 82% of the truck weight or cube capacity. Analysis showed an opportunity to increase shipment size.

At \$1.2B, Transportation is the largest component of supply chain spend

#### Scope

- 920,000 Annual shipments
- 400+ Inventory locations
- 3,800 customer ship to locations
- 5 Protection classes
- 25,800 Lanes

Given the complexity and spending outlined in the slide Ms. Haining presented (left), Kraft recognized the need for a method of optimizing orders to improve shipment size. Enter **AutoO<sub>2</sub>**, (**Automatic Order Optimization**) – which Kraft calls “Super Truck” – a scalable enterprise optimization system that converts demand into orders that maximize the truck capacity utilization while providing the shipping dock execution details so the load is legal and will arrive damage-free.



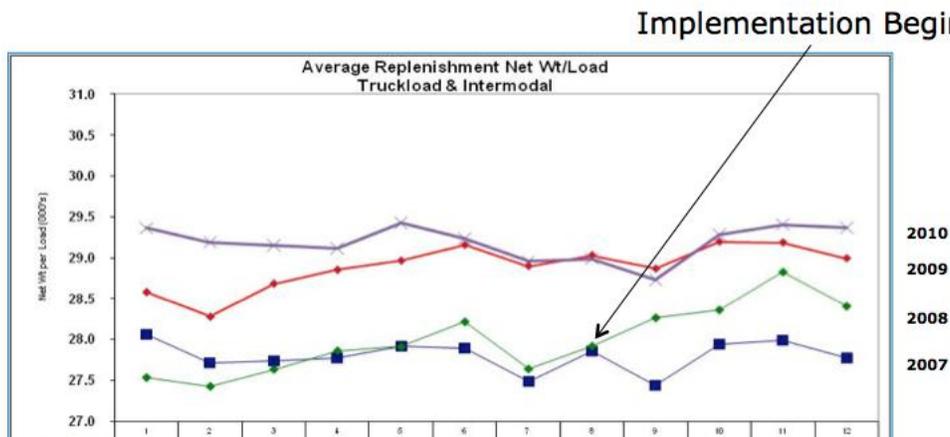
To prove the concept, Kraft implemented a two-plant pilot to optimize deployment shipments with limited systems integration. Upon success, they incorporated **AutoO<sub>2</sub>** with their Manugistics deployment system, which develops the requirements to ship on any lane. The requirements are handed off to Super Truck for building into the best possible truckloads.

The results were impressive:

- **9,000 less trucks on the road**
- **6.2 million less miles driven on an annual basis**
- **4% reduction in truckload costs**

Super Truck was deployed to more than 35 campuses in North America, but Kraft did not stop there. Kraft staff (using the VMI program from IBM) now writes many customer orders, and **AutoO<sub>2</sub>** is used to increase shipment size on high-volume VMI lanes. Interestingly, customer inventory did not increase, which was the same experience that Kraft experienced in its own network.

The following graph depicts Super Truck’s impact on total shipment volume. The left axis, which is the **net** weight of product shipped (load excludes such items as packaging and pallets), is the truest measure of effectiveness.



The savings generated by optimizing VMI orders are equally impressive.

**Shipments from a single Kraft dry mixing center (lbs per average truckload):**

Customer	Before Super Truck	With Super Truck	Net Change
Customer 1	36,190	39,481	9%
Customer 2	34,479	38,282	11%
Customer 3	36,760	40,162	9%
Customer 4	40,981	41,152	1%

Ms. Haining summarized this very effective program with these words of advice:

- Don’t boil the ocean, go after demand you can control
- Do it in phases
- Get the data to build your business case
- Track and measure
- Never give up

