Luminate Logistics

Load building

Reduce costs, improve efficiency, improve customer loyalty

Business context

Every organization that requires transportation planning is tasked with improving service levels while reducing transportation costs. The fine balance between these objectives becomes difficult to achieve when fulfillment planning and transportation planning are disconnected, resulting in underutilized trailer capacity and missed order shipments at the same time. Furthermore, if priorities are communicated to logistics, and they do not know what products are important, a lower priority order may be shipped while a critical priority order may be missed or overlooked adversely affecting service levels.

Solution description

Blue Yonder's load building as a service, built on Microsoft Azure, is designed to build inventory-aware full truckloads from fulfillment orders and provide optimal load containerization plans maximizing trailer utilization. This is ideal for distribution-intensive industries where inter-facility moves must be intelligently grouped together considering inventory, equipment, product, and packaging constraints. Load building pushes or pulls the orders within a configured planning horizon and splits orders to maximize the transportation efficiency.

Real results

Reduce transportation administrative expenses by

5%

Reduce inbound freight expenses by

5%

Reduce outbound freight expenses by

6%

Key features

- Provides multi-tiered load building that incorporates user-defined nested configurations.

- Supports a robust set of user-definable item loading properties.

- Considers inventory availability and constraints while reducing inventory shuttling.

- Aggregates and splits quantities across multiple trucks to achieve maximum load efficiency.
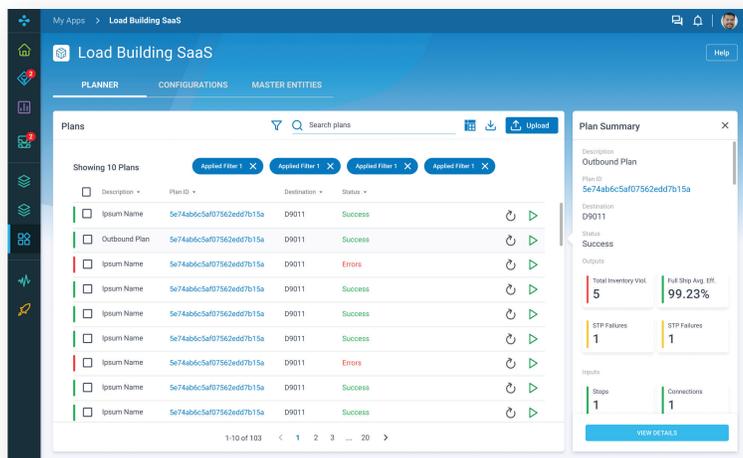
Capability details

Order consolidation and order splitting

Consolidates multiple orders together providing planners full control over the way orders are aggregated. Splits order quantities across multiple trucks to achieve maximum load efficiency and enables both push and pull of orders based on priority of the order while respecting inventory policies for optimal truckloads.

Multi-tiered load building

Provides multi-tiered load building that incorporates user-defined nested configurations while supporting a variety of pallet types including double, mixed layer, mixed Item, and sandwich pallets.

Equipment dimensions

Respects equipment dimensions, including usable dimensions and axle weight constraints, to achieve the best fit for the load while honoring the number of available vehicles.

Inventory aware load building

Respects inventory availability including on-hand, production, in-transit inventory to build more executable loads. Minimum and maximum inventory level constraints are honored during load optimization and push/pull of orders.

Multi-level containerization

Provides a three-dimensional containerization plan that both maximizes and optimizes shipping space utilization. Granular item stacking and orientation rules can be configured and honored during optimization to reduce in-transit damages and improve load handling time.

- Reschedules order shipping within planning horizon considering order priority.
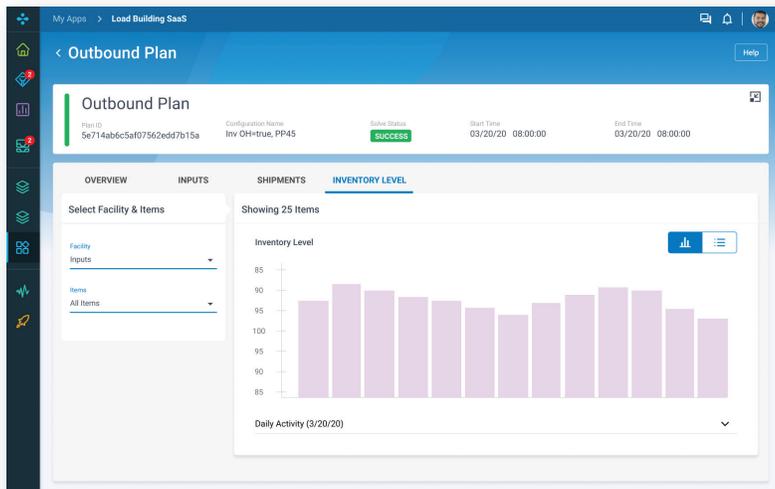- Provides detailed three-dimensional trailer containerization plan.

Key benefits

- Improve transportation efficiency by building inventory aware full truckload loads from fulfillment orders.
- Increase service levels while reducing transportation costs.
- Enhance customer service and loyalty by fulfilling orders on time and in full.
- Reduce execution exceptions as execution constraints are considered during planning process.

Digital transformation is at your fingertips

Complete a low-cost pilot for warehouse tasking in just 6-8 weeks and validate the business case, value potential and other benefits to your organization.

To learn more, visit blueyonder.com

blueyonder.com

BlueYonder