

# Product Flow Optimization

Powerful, easy-to-use strategic stocking and distribution solution



## Specialized stocking and distribution strategies

Companies with global supply chain flows, particularly distributors and retailers, have multiple paths to deliver products to customers. The complexity of these supply chains, which often contain numerous stock keeping units (SKUs) with unique characteristics, requires specialized stocking and distribution strategies to achieve optimal performance.

## Analyze trade-offs to optimize product delivery path

Product Flow Optimization (PFO) is a powerful, easy-to-use strategic stocking and distribution solution. It allows businesses to analyze trade-offs between transportation, warehousing, inventory carrying costs and service requirements to determine the optimal product delivery paths to customers. Companies improve profitability and meet customer requirements through solutions that can be viewed, compared and easily exported to tables and graphs for presentations and further analysis.

## Part of a complete supply chain solution

PFO is a Supply Chain Analyst (SCA) module. Part of ILOG's LogicTools suite of supply chain applications, SCA is an integrated solution for supply chain and inventory optimization that enables both strategic and tactical planning. Its modules – Inventory Analyst, Supply Planner, Product Flow Optimization and Demand Profiler – target specific supply chain problems. They have built-in integration capabilities to easily connect them to other systems, and share a common database that enables users to quickly move from one module to another.

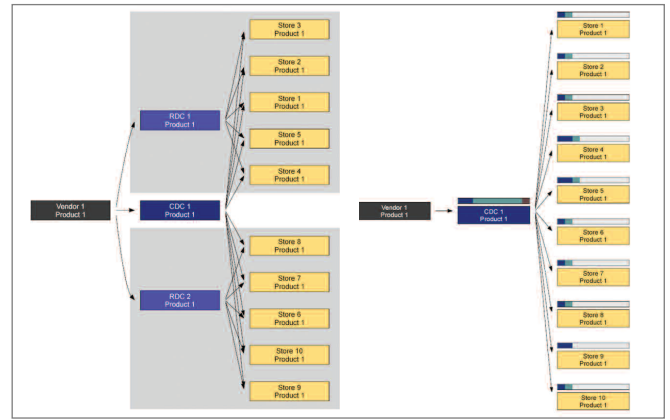
- Optimize product distribution based on demand
- Optimize inventory levels
- Better match production to stock
- Cut distribution costs
- Enhance ERP and APS applications
- Integrate with other ILOG solutions



## Key business issues

PFO addresses many key business issues, including:

- Better customer service** – Optimize the balance between shipping and warehousing costs and service level requirements to improve product delivery times. The ability to respond to customer pressures and competitive threats is crucial to revenue growth.
- Improve upon traditional make-to-stock processes** – PFO determines stocking strategies for different SKU's that can represent significant cost savings for the supply chain by correctly identifying which SKU's should be held in central distribution centers (DCs), which in regional DCs, which in both, and which should not be stocked at all.
- Optimize product distribution based on regional customer demand** – PFO determines the correct distribution flow for each SKU and customer region, allowing companies to realize significant supply chain savings.
- Reduce distribution costs** – PFO determines the best distribution strategy for each SKU in every customer region to minimize total costs for sourcing, transportation, receiving and inventory.
- Optimize inventory levels to meet customer requirements** – PFO helps companies determine the levels of inventory needed to maintain customer service goals based on stocking and distribution strategies. What-if analysis capabilities allow firms to visualize how optimal stocking and distribution strategies change as customer service changes.



PFO potential vs. optimal product flows to customers

“Speed and flexibility of product flow is critical to the retail industry, it provides both a service and cost advantage. The PFO module provides the capability to leverage and optimize our existing distribution network to achieve these objectives, as well as prepare and plan for future network requirements.”

– David Kaduke

Director, Logistics Planning  
Stocking & Distribution Strategy  
Limited Brands

## Functionality

- Compare lanes as variable vs. fixed
- Set different sourcing policies for local vs. distant suppliers
- Set different inventory policies for regional vs. local DCs
- Include supplier sourcing costs
- Define the lowest cost strategy for each SKU and region
- Define strategies based on sourcing, transportation and inventory holding costs
- Calculate inventory carrying costs
- Calculate transportation modes and costs
- Calculate warehousing costs
- Meet customer service targets

## ABOUT ILOG SUPPLY CHAIN APPLICATIONS

ILOG Supply Chain Applications capitalize on ILOG's 20 years of leadership in optimization and LogicTools' supply chain customers, expertise and thought leadership. Over 250 companies use the LogicTools suite of supply chain applications for network design, production sourcing, inventory optimization, transportation planning as well as production planning and scheduling. With the acquisition of LogicTools, the company founded in 1995 by David Simchi-Levi, Professor of Engineering Systems at MIT, ILOG today provides solutions that complement ERP systems and enable companies to make better decisions faster by optimizing their logistics networks and transportation strategy, setting safety stock levels for their sales and operations planning and improving their plant operations through sophisticated production planning and detailed scheduling.

## ABOUT ILOG

ILOG delivers software and services that empower customers to make better decisions faster and manage change and complexity. Over 2,500 corporations and more than 465 leading software vendors rely on ILOG's market-leading business rule management system (BRMS), supply chain planning and scheduling applications and optimization and visualization software components, to achieve dramatic returns on investment, create market-defining products and services, and sharpen their competitive edge. ILOG was founded in 1987 and employs more than 800 people worldwide. For more information, please visit [www.ilog.com](http://www.ilog.com).

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