



Build To Order for the Automotive Tier-1 Supplier

Automotive consumers are requesting more and more highly individualized and customized vehicles. This global trend challenges the automotive supply chain as cars are increasingly made to order, with highly complex modules being supplied order/car specific. Many automotive suppliers are facing these challenges as they build and ship multi-variant modules, complex as well as safety-relevant parts—on time and often supplied in sequence. RedPrairie Build To Order is the perfect answer to master these challenges, supporting lean and agile Tier-1 supplier operations with complex vehicle specific module assemblies, late customizations and In-sequence deliveries.

Build-to-Order in the Automotive Industry

Today's automotive industry demands rapid changes to goods to satisfy consumer demands for individual customization. Automotive suppliers must deliver zero-defect products on-time, vehicle specific and Build-to-Order, sometimes in sequence for the OEM to quickly respond to consumer's specific requests and last-minute changes. An increasing number of vehicle niche models and consumer options require high flexibility and late customization. Furthermore, the products are often packed and shipped In-sequence (SILS/ILVS programs). The short lead-times require the supplier to be able to respond to any change in real-time. The core production processes become mission critical.

Only companies with the most agile and integrated manufacturing and logistics strategies will succeed in adapting to customized production and delivery, meeting the demands of Mass Customization.

Introducing RedPrairie Build To Order

The Build To Order solution enables automotive suppliers to quickly adapt to changing market demands and satisfy customer needs, transforming Build-to-Order strategies from a cost increasing production methodology to an approach with considerable cost reductions and shorter lead times over traditional production methods. RedPrairie solutions have helped automotive enterprises implement SILS/In-Sequence-Delivery, Agile and Lean Manufacturing, and Build-to-Order processes. Suppliers manage their production from order to delivery in real-time, thereby gaining a competitive advantage through shortening lead times, reducing inventory costs and increasing delivery quality.

RedPrairie offers unique products for automotive Tier-1 suppliers producing late customized and consumer-specific goods for automotive OEM assembly factories, providing an agile solution for this type of operations. The supplier is often facing significant liabilities in relation to both quality

Challenges	Required Measures	Potential Consequences
Continuous price pressure	Stay lean - lower inventory costs	Increased buffer inventory
Shorter lead-time	Automated process flow and control	Excessive capacities
In-sequence supplies	Embrace variability	Penalties
Available-to-promise	Agility and event management	On-time delivery issues

and on-time deliveries, requiring an absolute control of both related supply-chain and production aspects, leaving absolutely no room for mistakes.

Based on the MEM concept (Manufacturing Event Management), RedPrairie’s Build To Order monitors and reacts to production, manufacturing and order fulfillment events, including exceptions, as early as possible, minimizing risks and increasing throughput.

RedPrairie Build to Order Solution

RedPrairie Build To Order is a suite of functionality to meet the global OEM requirements for handling the diverse information and standards in the supply chain. A set of order management and fulfillment functions act as core—from small to large scale operations, from one type of product to multiple commodities produced and shipped in parallel. This is tightly integrated with the production and manufacturing processes, to support multiple levels of assembly, late customizations, build validation and data collection from floor equipment and tooling controllers. At the back end RedPrairie Build To Order has the necessary capabilities to meet every OEM demand for finished goods, package and shipment labeling, and their packing and shipping requirements for In-sequence deliveries (SILS/ILVS programs) and any supply chain messaging.

RedPrairie Build To Order is a highly flexible set of solution building blocks, enabling the customer to maintain a central repository of specific business logic for order fulfillment. This includes your business supply chain integration, production, manufacturing error proofing and data collection, labels, papers, exception handling rules, document and reports, and system interfaces. This repository is the foundation for a true template environment that ensures and maximises reusability across all your companies’ operations world wide, increasing your ROI.

FACTS & TRENDS

- Vehicle specific manufacturing with short lead-times and increasing product complexity
- Increasing number of options requires late customizations and in-sequence delivery
- Increasing quality requirements through demanding norms, parts and process traceability in supply chain

PAIN ISSUES

- Short lead-times and complex production with high variance, modules and systems being produced
- Manufacturing constraints, fluctuating production load
- Supply chain visibility, recall and warranty management
- Maintaining agility, safeguarded by real-time visibility, monitoring and alerting

FUNCTIONAL HIGHLIGHTS

- Build-to-Order and Sequencing execution, from SCM/ERP down to the machine level
- Build compliance, error proofing/poka-yoke, data collection and traceability
- Materials management with engineering change control, option- and feature-based programs
- Supply chain integration (Broadcasts, EDI, ASN, etc.)
- Order management and production release, with multiple commodity manufacturing and assembly
- Label management, production and product labels
- Packing and shipping, including Sequencing
- Integration of ERP and WMS systems
- Exceptions management (e.g., insufficient inventory, WIP delays, order fulfillment or quality issues, production flow issues, etc.)
- Graphical configuration tools

BENEFITS

- Build-to-Order strategy
- Agile production with on-time delivery

Build To Order Supply Chain Integration	Build To Order Management	Build To Order Dispatch Management	Build To Order Dispatch Management
<ul style="list-style-type: none"> • Broadcast handling • Plausibility/Validation • Change management • Reconciliation 	<ul style="list-style-type: none"> • Order Management • Scheduling • Release to production • Production flow • Finished goods • Backflush reports 	<ul style="list-style-type: none"> • Assembly • Sub-Assembly • Kitting • Labeling • Error Proofing • Track and Trace • Pack-out 	<ul style="list-style-type: none"> • Validating • Loading • Shipping ASN

Build to Order Visibility, Event Management & Reporting

Product Overview

Build To Order from RedPrairie is a set of proven extensible, standardized solutions for specific customer business challenges and requirements. It is based on a modular approach; it is fully scalable to seamlessly adapt to changing requirements and multiple size facilities. Build To Order is the most advanced integrated solution suite in the area of sequencing (ILVS/SILS), build-to-order, error proofing and traceability, as well as lean manufacturing and advanced scheduling.

Build To Order from RedPrairie handles the complete horizontal flow of information and material from order entry to delivery, controlling the execution between the ERP/supply-chain and the device/machine levels. Other solutions typically provide vertical integration of the shop floor information with single processes of the business layers (ERP), providing visibility into individual steps in the processes only.

About RedPrairie

RedPrairie delivers productivity solutions to help companies around the world in three categories—inventory, transportation and workforce. RedPrairie provides these solutions to manufacturers, distributors and retailers looking to reduce cost, increase sales and create competitive advantage.

With over 20 global offices providing services to over 40,000 sites in 50 countries, companies trust RedPrairie inventory, workforce and transportation solutions to deliver an immediate increase in productivity—with the flexibility to adapt as business needs change.

At RedPrairie, we understand today's operational demands and we're committed to delivering solutions that work. We're committed to delivering solutions for the real world.