



Kolcraft®

CASE STUDY

New Product Development Isn't Child's Play at Kolcraft

Aras maintains 4 independent revision levels on every Kolcraft product; ensures design integrity while optimizing cost, quality & time to market.

Kolcraft Enterprises, Inc., America's number one crib mattress manufacturer, was founded in 1946 when Leo Koltun made playpen pads out of cotton batting and oilcloth covers. In 1949, he invented the all-around crib and playard bumper pad, and a period of rapid growth soon followed as the company expanded into the manufacture and distribution of playards, high chairs, walkers, strollers, bassinets, bouncers, swings and juvenile furniture.

Today, the Kolcraft name is recognized worldwide for quality and dependability. The company is aligned with leading brand names such as Sealy®, Sesame Beginnings™, Jeep®, NASCAR® and others, and it remains committed to developing high quality must have baby products that make parents and caregivers lives easier.

Kolcraft produces a wide range of baby products, many of which are customized by brand, retailer, geography or all three. To manage its myriad of products and the related components, documents, drawings, specifications and requirements, Kolcraft developed its own Product Specification System (PSS). The in-house PSS served the company well for many years but as product lines expanded, customization increased and new technologies replaced old, Kolcraft realized it need a more robust solution to manage the many facets of its highly sophisticated product lifecycle.

"Aras provides us with a whole new level of granularity in our design process as well as configuration management and control which enables us to manage our business in a way that was not possible before."

Gary Klosak

Director of Information Technology Kolcraft Enterprises

Business Benefits

- Strategic Competitive Advantage
- Improved Product Quality
- Faster Time To Market for New Products
- Reduced Development Costs

DRIVING COMPETITIVE ADVANTAGE

"Kolcraft's goal is to increase our competitive edge by optimizing quality, time and cost throughout the product lifecycle," said Gary Klosak, Director of Information Technology at Kolcraft. "Our PLM solution had to align well with our existing processes, such as New Product Development and Introduction (NPDI), and drive the adoption of best practices going forward. It also had to be easy to upgrade and expand as our needs change over time."

Following a review of leading product lifecycle management (PLM) solutions, which included PTC Windchill and Oracle Agile, Kolcraft chose Aras Enterprise Open Source PLM. Kolcraft selected Aras because it offers significant functionality out of the box; it is highly flexible and easy to tailor, configure and install; and there are never any PLM license fees to pay with Aras.



FLEXIBILITY TO MEET DIVERSE NEEDS

To be successful, Aras had to meet the needs of three distinctly different groups within the company: Kolcraft's engineering group, who design the base products; the fashion group, who tailor base designs with color, fabric, etc. to achieve final, salable products; and the marketing group, who is responsible for packing, consumer instructions, safety requirements and more, for every individual product. Each group has unique system requirements, all of which are critical to the development and deployment of Kolcraft products.

To ensure that each group had a voice in the system design and that the final solution met everyone's needs upon rollout, Kolcraft leveraged Aras' Prototype and Iterate methodology, which is based on the Rational Unified Process (RUP) approach. Capabilities are developed and then tested by actual users in their environment. Refinements are incorporated immediately based on user feedback. Under this approach, companies get up and running faster, spend less on consulting and user adoption rates are much higher because users are familiar with the system prior to roll out.

SIMPLIFYING COMPLEX BOM & CONFIGURATION MANAGEMENT

At Kolcraft, base product designs are used to create finished, salable products. Each base product, subassembly or component can have numerous variations, each represented as a different finished product. Color, material, fabric, etc., vary from finished product to finished product, as do packaging, assembly instructions, safety and other requirements. For example, a base stroller design can be produced in a specific color for a given worldwide retailer. The fabric on that stroller can change by brand and/or country. That configuration will be manufactured in a specific plant in a particular location. Packaging and assembly instructions will vary for each country in which the stroller is sold, and different safety and compliance regulations will be applied by region. Multiply this by the hundreds of products Kolcraft produces globally, and you have a very complex configuration and change management challenge.

Prior to implementing Aras, product updates were managed manually across every bill of material (BOM) for every change. It was a time consuming, inconsistent process and it was impossible to ensure that every affected product was always up to date. To ensure consistency and design integrity, Kolcraft needed an automated BOM to update and manage changes to each variation on a base product, as well as the base product itself, by discipline: engineering, fashion and marketing.

Aras' rules-based configuration management system was modified to maintain independent revision levels on every Kolcraft product based on the specific rules and schedules of each of its three major disciplines. In addition, Aras enables Kolcraft to control how and where a single product change ripples through to the base product and all related variations on that product.

With simple pull down menus, designers can change colors and fabrics and apply them to all related products, on the fly, in a single step. If the material on the base product is changed from metal to plastic, all related BOMs are automatically updated. Conversely, changes can be made to a single finished product without affecting the base product and/or all the other related finished products, and existing product designs can be used as templates to create new products. *"The Aras system is extremely dynamic," said Klosak. "Aras provides us with a whole new level of granularity in our design process as well as configuration management and control which enables us to manage our business in a way that was not possible before."*

"Any PDM system can handle revision tracking, but three at once? We knew it was a stretch, but Aras works exactly the way we wanted it to and we couldn't be happier."

Gary Klosak

Director of Information Technology Kolcraft Enterprises

BETTER PROGRAM INSIGHT & FASTER TIME TO MARKET

The Aras system captures all changes and surfaces them in reports, showing the current configuration well as the history of the BOM. This capability is key for Kolcraft, as they no longer have to rely on manufacturers to source previous BOMs and compare changes manually. Now each revision is broken out separately, highlighting changes, additions and deletions, as well as the date the change was made, who made it and why. Product changes are incorporated faster and more accurately, with less waste and rework which drives greater profitability.

Today Kolcraft has migrated off its previous legacy PSS system and is managing all BOMs, product configurations and change management in Aras. Expansion plans include project management for new product development and CAD file management. *"We're already seeing the benefits of the Aras PLM system at Kolcraft and we're just getting started,"* commented Klosak. *"We have capabilities we've never had before and our users have embraced Aras in a big way. Aras has given us the strategic advantage we were after."*





Aras provides the most powerful low-code platform with applications to design, build, and operate complex products. Our technology enables the rapid delivery of flexible, upgradeable solutions that build business resilience. Aras' platform and product lifecycle management applications connect users in all disciplines and functions to critical product data and processes across the lifecycle and throughout the extended supply chain. Airbus, Audi, DENSO, Honda, Kawasaki, Microsoft, Mitsubishi, and Nissan are using the platform to manage complex change and traceability. Visit www.aras.com to learn more and follow us on Twitter and LinkedIn.

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