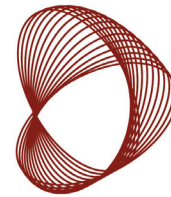


Configure One



synchrono

Configure One™ & Synchrono™ Working Together

Sometimes two heads are better than one. In this case two software products working together are better than one. Imagine being able to create unique bills of material, routings, and production drawings automatically, and respond to customer inquiries with accurate pricing and a realistic delivery date. The partnership between Configure One and Synchrono makes this possible.

Configure One's *Concept*™ product configurator software instantaneously translates customers' unique product requests into quotations, sales drawings, bills of material, and routings.

Synchrono's *Adaptive Manufacturing* is the enabler for demand-driven, pull-based manufacturing, fully integrating scheduling and shop floor execution through highly responsive production tools. Synchrono's flagship product *Adaptive Manufacturing* synchronizes the company to ensure labor, materials, and operational capabilities are available to execute the presented demand and all resources are focused on the right demand priorities and do not waste capacity (machine, labor, materials) or create chaos during the production process. Synchrono's solutions embrace simplicity by focusing on driving velocity through the manufacturing process while providing an infrastructure that controls variability and ultimately creates predictable execution and delivery results.

ColorTree, Inc. of Virginia is a full-service manufacturer and printer of envelopes designed to meet the needs of direct mail marketers. ColorTree has used Configure One and Synchrono since 2003.

"We were looking for software that supported our Theory of Constraints (TOC) philosophy. We engaged a scheduling company, Synchrono, from St. Paul, Minnesota," explained Janet Wynn, Controller, ColorTree. "However, it soon became clear that we needed a configurator to handle our order entry. Synchrono recommended Configure One's *Concept* product configurator software. We were very impressed with the ease of using *Concept*, and thought it would be a good fit for our organization. *Concept* is rules-based, and we could configure the rules to fit our business needs."



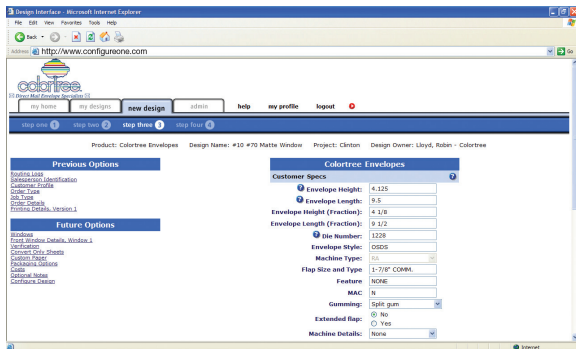
"The Combination of Configure One with Synchrono's *Adaptive Manufacturing* Application not only yielded unprecedented results, but has cleared the path of continuous improvement at ColorTree. Either system by itself would give excellent results, but using the two in concert gives ColorTree a complete solution."

Pat Patterson, COO,
ColorTree, Inc.

Seamlessly Working Together

So how do Configure One's *Concept* and Synchrono's *Adaptive Manufacturing* application work together? Below is a description of a typical business scenario:

Quotations and/or customer orders are entered into *Concept* in the form of product features and options. The customer's requested ship date is also entered into *Concept*. Configuration rules ensure users only make compatible selections resulting in accurate products and eliminating manufacturing rework caused by configuration errors.



Concept dynamically translates the entered features and options to produce quotations, bills of material, and manufacturing routing reports.

Even before configurations are converted to actual orders, *Concept* and *Adaptive Manufacturing* seamless integration provides instantaneous feedback on “what if” delivery and execution scenarios. By leveraging Synchrono's real-time scheduling functionality, the two solutions work together to provide answers to the all-important production questions, “If the order is placed right now, can we make the requested delivery date and if not, when is the earliest date that the order may be shipped?”

When a “what if” delivery and execution scenario is requested, *Concept* sends Synchrono the configured bill of material and a planning routing. The routing contains the setup and runtime information required to process the quote. Synchrono uses these bills of material and routings to check all capable plants, in real-time, based on capacity and material constraints and calculates the earliest possible delivery date. This date is returned back to *Concept*, and presented to the user on the screen — all in a matter of seconds.

Unlike ERP systems that calculate “capable-to-promise” dates on a batch basis, Synchrono's *Adaptive Manufacturing* solution allows for an interactive and exceptions-based process, in real-time, that allows for multiple scenario analysis all focused on meeting the customer's requirements. For example, if a second “what if” calculation is performed ten minutes after the first, Synchrono will calculate a new “capable-to-promise” date resulting from any changes in load, capacity, or material availability, thus embracing the reality of variability within the manufacturing process. *Concept* further streamlines this process by eliminating the time and effort normally required to manually create an accurate bill of material and routing for every quote requiring a “capable-to-promise” date.



“In a couple of our product lines there is a lot of repetitive engineering and we were looking for a way to automate that effort. Our goal was to find a product that would allow us to put that information directly into our existing Synchrono application to eliminate the manual effort that we spend today. By providing instantaneous proposal drawings and price quotes to customers, Configure One will really speed up our sales cycle. Depending on the product complexity, we anticipate cutting the lead time of the order in half.”

David Rex, CEO,
Rex Materials Group.

“The two systems send real-time signals back and forth to update demand, execution, and delivery attributes to ensure continuous data integrity. We have eliminated multiple data entry and the opportunity for mistakes. Information for the scheduling system (Synchrono) comes from calculations in *Concept*. Synchrono then determines when we can actually ship the job and sends that information back to *Concept* so we can tell the customer,” said Pat Patterson, COO, ColorTree.

Benefits

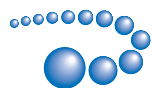
Concept from Configure One and Synchrono’s *Adaptive Manufacturing* working together provide an agile quote, order entry, and scheduling system. This superior software combination helps manufacturers eliminate errors, provides customers with faster more accurate pricing, realistic delivery dates, and improved customer satisfaction.

The screenshot shows the Synchrono software interface with a menu bar (File, Edit, View, Favorites, Tools, Help) and a toolbar. The address bar displays 'http://www.synchrono.com'. Below the menu is a navigation bar with tabs: Planning, Execution, Demand, Supply, Items, Analysis, Reports, Administration. A filter section includes 'Assembly' (dropdown), 'Auto-Sander', 'Bandsaw', 'Edging' (dropdown), 'Interval: Week', 'Periods: 4', and a 'Retrieve' button. The main area displays a table of resource load data.

Resource	Thru 12/12/2001			12/22/2001-12/28/2001			12/29/2001-12/15/2001			12/16/2001-12/22/2001			Totals		
	Load Hrs	Capacity	Load Pct	Load Hrs	Capacity	Load Pct	Load Hrs	Capacity	Load Pct	Load Hrs	Capacity	Load Pct	Load Hrs	Capacity	Load Pct
Assembly	4.5	50.0	9%	0.0	50.0	0%	0.5	50.0	1%	2.2	50.0	4%	7.1	200.0	4%
Auto-Sander	58.8	50.0	117%	0.0	50.0	0%	55.8	50.0	113%	25.0	50.0	50%	139.3	200.0	70%
Bandsaw	7.4	100.0	7%	0.0	100.0	0%	2.3	100.0	2%	16.1	100.0	16%	25.8	400.0	6%
Edging	2.8	50.0	5%	0.0	50.0	0%	0.3	50.0	1%	1.3	50.0	3%	4.2	200.0	2%
Finishing	12.8	50.0	26%	0.0	50.0	0%	3.0	50.0	6%	7.6	50.0	15%	23.4	200.0	12%
Laminator	3.8	50.0	8%	0.0	50.0	0%	0.7	50.0	1%	1.2	50.0	2%	5.8	200.0	3%
Lathe	21.3	50.0	43%	0.0	50.0	0%	5.6	50.0	11%	5.0	50.0	10%	31.9	200.0	16%
Packaging	4.2	50.0	8%	0.0	50.0	0%	0.4	50.0	1%	1.7	50.0	3%	6.3	200.0	3%
Tablesaw	18.0	50.0	36%	23.8	50.0	48%	3.7	50.0	7%	3.3	50.0	7%	48.8	200.0	24%

“A major benefit is providing the customer with a realistic delivery date, creating predictability, and improving customer satisfaction. Before implementing Configure One and Synchrono, we would just accept the order and hope we could meet the due date. Now, we are more proactive and can tell customers instantly whether or not we can meet their requested date. We have an accurate view of the load on all of our resources. We are able to manipulate our orders to optimize the plant and move jobs around where we couldn’t before,” said Wynn.

While their competitors are struggling in the saturated printing industry, ColorTree is expanding and experiencing exceptional growth year after year. Since implementing Configure One’s *Concept* and Synchrono two years ago, ColorTree has been able to increase order volumes 30 percent without increasing its staff.



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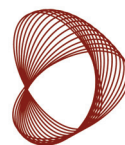
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