



# discrete manufacturing

## Thru-Put Advanced Planning and Scheduling

## Improve Throughput with TOC based Planning and Scheduling

Hundreds of successful customers in discrete manufacturing industries rely on Thru-Put to Synchronize their multi-plant supply chain delivery chain and re-synchronizing the chain on a daily basis to keep the plan intact and minimize supply-demand disruptions. Following the Theory Of Constraints (TOC) principles, Thru-Put provide realistic schedule for your complex manufacturing facilities that is in alignment with your plant resources and materials.

### Challenge

Complex. That's today's supply chain. Demand is constantly changing, yet the expectation that you will meet it remains. You're being pushed to create even higher quality products in increasing shorter timeframes. The market is insisting on customization and lower costs. Production is often distributed across multiple plants using multiple suppliers, and the pressure is on to effectively manage your resources internally and across locations. You are asked to promise the delivery date while accepting the order and forced to keep the promise irrespective of the disruptions happens in your supply chain.

### Solution

In a Supply Chain where customer demands and suppliers are unpredictable, you can count on the performance of our Thru-Put Planning and Scheduling Solution. Thru-Put solution embodies TOC principles that help to support Drum-Buffer-Rope (DBR) execution philosophy in your complex shop-floor. By identifying critical constraints in you supply chain, you will be able to synchronize the entire supply chain around the constraints and thereby improving the material flow in the shop-floor and on time delivery of customer orders.

Thru-Put comes with various modules that support various roles in your supply chain, from planning to execution and monitoring to measuring the performance of the shop-floor. Following is the brief description of various modules in Thru-Put Planning and Scheduling solution.

Increases on-time delivery

Reduces cycle times

Reduces operating expenses

Increases throughput

Increases profits

Reduces purchase-to-cash cycle

Reduces inventory

Generates Return On Investments quickly

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‘This solution gives us the flexibility to make the best production decisions possible so we can address crucial issues immediately, improving delivery performance and reducing costs.’  
—Manuel Valdes, Materials Manager, Dirona, Automotive Component Supplier

‘It is extremely important that we have control over the complexity and control of the flow of materials through our plant. Until, we implemented Thru-Put, that was beyond our reach’  
—Ralph Carrel, Production Planner, Brenco, Inc. Metal Fabrication Company

### **Synchronization Engine**

Synchronization Engine is the foundation of our Supply Chain Management Solution. An interactive, memory-resident planning tool, it produces stable capacity, material and labor-tested production plans, and predictable purchasing schedules. Synchronization Engine identifies key constraints that impact delivery schedules and synchronizes the operation to the capacity of these constraints, smoothing material flow. It also establishes strategic time buffers to eliminate the need for constant re-planning. Synchronization also includes Resynchronization module that incrementally adjusts for new orders, changes and cancellations, creating a more stable plan.

### **Customer Service Workbench**

Customer Service Workbench enables you to quote capacity-tested, reliable due dates to your customer, improving on-time delivery performance and customer satisfaction. It takes into consideration material and capacity availability across the supply chain and provides a rich set of what-if options that help you set and meet customer expectations. And it’s Capable-to-promise (CTP) functionality ensures greater control and visibility of your supply chain by helping you analyze the feasibility of on time delivery and profitability of orders before accepting them. With Customer Service Workbench, you can trade off existing low priority scheduled orders in order to meet demanding customer needs.

### **Reports**

Web-based Reports helps you disseminate mission-critical information about the current manufacturing plan across the enterprise. This powerful component offers customization, inquiry and reporting functionality for effective communication and execution, delivering fast and easy access to the most current plan.

### **Supply Chain Planner**

Supply Chain Planner helps you make the most effective use of your internal supply chain capacity, ensuring that some plants don’t work overtime while others are idle. Corporate planners can make tactical and strategic decisions with instantaneous visibility into critical load and capacity data. Rich decision-support tools improve master planning for multi-plant operations by helping you adjust supply and demand across the enterprise. Seamless integration with Synchronization Engine also ensures corporate planning decisions are considered when

### **Strategy Planner**

Strategy Planner enables you to make strategic decisions that impact long-term operations. Using a memory-resident model that delivers real-time processing, you can perform what-if scenarios to evaluate the impact of potential decisions, such as adding shifts, buying machines, adjusting forecasts and improving processes. And with constraints-based information, you can identify your most profitable products and opportunities and optimal product mixes.

### **Performance Analyzer**

Performance Analyzer elevates constraints-based planning concepts from the shop floor to the top floor by providing effective operational measurements based on global optimization, replacing older efficiency measures. A Web-enabled tool, Performance Analyzer provides complete visibility of current and past performances so you can troubleshoot and analyze problems, helping support continuous improvements throughout the manufacturing environment.

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**Infor** takes pride in the 20 years of experience we have in the manufacturing industry. Using our deep base of industry knowledge and proven communications and planning applications, we help suppliers and manufacturers achieve their business goals. We are passionately focused on providing comprehensive solutions that meet the unique challenges of the manufacturing industry on a global scale. Our solutions are comprehensive, open and modular, giving you the optimal choices to meet today's challenges and leverage tomorrow's opportunities.



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## DB-UTIL

The Database Interface Utility (DB-UTIL) is an integration toolkit that easily and rapidly integrates your host system and our Thru-Put Solution. It feeds data from any enterprise (ERP resource planning system) directly into the relational database via flat files, or a standard application programming interface (API). You can interactively browse downloaded fields from the ERP system, and DB-UTIL automatically applies default values for the remaining fields. Out of box interfaces are available for many popular ERP systems and the interface can be easily extended to other vendor systems or homegrown systems.

## Features

- Synchronized Plan through constraint optimization across the production facilities: machines, Materials and man power
- Catering to changes in the customer demand and supply pictures through resynchronization ( net change)
- Handles lot sizing & aggregation policies for both make and buy parts
- Forecast Fencing, consumption
- Supports Planning bills, make/buy
- Alternate routings and facilities and automatic allocation of work along alternates
- Supports operation sequencing, back to back etc
- Capacity tested quotation that runs through your entire supply-chain
- Web deployed Reports that facilitate customization
- Capable to Promise that helps you to make realistic delivery commitments and keep them. When preferred customers need to expedite orders, Thru-Put shows the operational impact of the order, as well as which lower priority orders must be deferred to accommodate the request by way of trading off material and constraint capacity.
- Helps to measure the execution performance versus the plan

## Benefits

Synchronized plan increases the material flow in your supply chain leading to shorter delivery lead times and improved on time delivery performance. Buffer management helps to systematically correct gaps in execution. By focusing on constraints, Thru-Put helps you to focus on critical things that matter in product delivery there by reducing the inventory. More than 90 percent of our customers report a substantial return on investment within 120 days of implementation. And our solution is ERP-independent, which means you can realize the benefits of a totally integrated supply-chain without having to replace your existing ERP infrastructure.

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