



Infor ERP VISUAL  
Easy Lean  
Infor ERP VISUAL DBR



"We're now seeing huge profits due to increased throughput. Based on two years ago when we were at the same level, we can handle 25 percent more volume with the same number of people, and we're seeing probably 40 percent more to the bottom line. Capacity in the shop seems about 50 percent of what I was doing before, yet the bottom line is much bigger."

Jim Luebke, Owner  
Advanced Tooling  
Specialists, Inc.

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# The True Power of Lean

### Streamlined Processes for Improved Productivity

In today's increasingly competitive marketplace, it's clear that the majority of manufacturers are focusing on the principles of lean manufacturing to reduce inventory levels, cut lead times, and improve on-time delivery performance. To that end, Infor offers two industry leading, "pull" based solutions that allow manufacturers to streamline their operations and significantly increase productivity and profitability—Infor ERP VISUAL Easy Lean and Infor ERP VISUAL DBR.

### Infor ERP VISUAL Easy Lean

To win new customers and increase sales today you have to compete on lead times, delivery and price—a difficult task made more difficult by the regular chaos that comes with unexpected occurrences like machine breakdowns and customer emergencies.

Infor ERP VISUAL Easy Lean is a fast-implementing solution that supports the principles of Lean Manufacturing. It's a scheduling method that works with Infor ERP VISUAL™ and delivers significant results within 30-90 days. By making a few small changes to your traditional business practices and by incorporating pull-oriented scheduling techniques you can gain visibility that allows you to make better decisions, release inventory at optimal times, and smooth production flow. Infor ERP VISUAL Easy Lean helps you avoid chaotic situations on the production floor, take on increased business, and drive more money to your bottom line.

Whether you operate as a make-to-order or make-to-stock company, Infor ERP VISUAL Easy Lean protects your on-time deliveries by providing the critical information you need to shorten lead times, overcome market constraints and increase business and profits. Unlike traditional scheduling solutions, the system focuses on pulling materials through the shop, which helps keep your inventory levels low and your ability to respond to customers high. By incorporating shipping and inventory buffers into scheduling, the system allows you to protect both customer due dates and constraint resource schedules, as well as protect the availability of raw materials, purchased parts, common subassemblies, replacement parts and finished goods.

### Protection

Using buffers for scheduling, you can protect all aspects of your business:

- Pre-Production—Reduce delays in production by maintaining 100% availability of raw materials and purchased parts
- Semi-Finished Goods—Reduce delays in production and time-to-customer by maintaining 100% availability of partially finished components and replacement parts
- Finished Goods—Achieve zero stockouts on catalog items and increase selling opportunities by optimizing your inventory investment while maximizing your profits

## Infor ERP VISUAL Easy Lean Benefits

- Protect your ability to deliver on time—every time.
- Avoid wasting capacity by building to demand rather than forecast.
- Reduce lead times sufficiently and make-to-order vs. make-to-stock.
- Gain unparalleled visibility into materials and production.
- Respond quickly to the market.
- Avoid stock-outs and increase up selling.
- Quote shorter lead times with confidence.

## Shipping Buffers

For the make-to-order portion of your business, Infor ERP VISUAL Easy Lean protects the dates you promise to your customers with time in the form of shipping buffers. You can set this allotment of time and the system uses it to calculate the earliest allowable date for releasing a job to production. This reduces Work In Process (WIP) and helps the production staff prioritize tasks for optimal flow and on-time delivery. The system continuously calculates the percentage of the buffer consumed by each job and graphically displays this amount onscreen. Department managers can quickly assess operations and keep work flowing while maintaining a flexible environment primed for handling any emergency orders or taking on new business. Infor ERP VISUAL Easy Lean helps you promote your high-quality reputation and exceed customer service expectations.

## Replenishment Buffers

For the make-to-stock and ship-from-inventory portion of your business, Infor ERP VISUAL Easy Lean protects against stockouts and allows you to build to real demand instead of to forecast. Using replenishment buffers for each of your parts and Stock Keeping Units (SKUs), you can define stock levels, including quantities in inventory, WIP and unreleased work orders.

You can track these levels and eliminate the uncertainty that occurs with managing replenishment. This powerful tool offers accurate information, tracking inventory levels over time and noting high-consumption items. It helps you recognize trends and stay lean, while always maintaining products in stock.

## Expertly Manage Market Constraints

Infor ERP VISUAL Easy Lean helps you consistently achieve on-time delivery for your long-term customer commitments. It also protects your flexibility to respond to unexpected rush orders and, ultimately, enables you to take on more business. The solution helps your departments work together to dramatically reduce the time every order spends waiting to be worked on. By using the effective measurements and reports included with this solution, you can decide when to start jobs and know when you can expect to finish. With

fast turnaround times you can also capitalize on the ability to deliver on short notice. Infor ERP VISUAL Easy Lean helps increase flow throughput in your plant by connecting your production planning and execution processes.

If you want to stay ahead of other manufacturers, you need to operate effectively. You need to recognize orders that will increase your profits, arrange delivery so that your customers receive products in a beneficial way and keep inventory low. Infor ERP VISUAL Easy Lean delivers real results. As with every Infor ERP VISUAL product, you will also receive our professional expertise and experience when you decide to implement this powerful solution.

Status	Operation ID	Utilized Qty	Buffer W/CID	Buffer Seq No	Buffer Piece No	Type	Size	Due
100	w/130-1/1 Op# 30	Operation		-1	-1	Replish	100	
90	w/100-2/1 Op# 30	Operation		-1	-1	Shipping	80	4/17
90	w/101-1/1 Op# 40	Operation		-1	-1	Shipping	80	4/17
90	w/101-2/1 Op# 30	Operation		-1	-1	Shipping	80	4/17
33.3	w/105-2/1 Op# 20	Operation		-1	-1	Assy+Ship	64	4/19
30	w/102-2/1 Op# 30	Operation		-1	-1	Shipping	80	4/12
30	w/103-2/1 Op# 30	Operation		-1	-1	Shipping	80	4/12
11.1	w/130-2/1 Op# 20	Operation		-1	-1	Assy+Ship	64	4/25
	w/106-1/1 Op# 40	Operation		-1	-1	Shipping	80	4/25
	w/106-2/1 Op# 30	Operation		-1	-1	Shipping	80	4/25
	w/122-1/1 Op# 40	Operation		-1	-1	Shipping	80	4/25
	w/122-2/1 Op# 30	Operation		-1	-1	Shipping	80	4/25
	w/122-3/1 Op# 30	Operation		-1	-1	Shipping	80	4/25
	w/130-1/1 Op# 30	Operation		-1	-1	Shipping	80	4/25

## Infor ERP VISUAL DBR

Infor ERP VISUAL DBR (Drum-Buffer-Rope) is an application for production planning inspired by the Theory of Constraints (TOC) business management philosophy developed by Dr. Eli Goldratt. Incorporating Murphy's Law, which states "Anything that can go wrong, will go wrong," Infor ERP VISUAL DBR includes features to help companies create production schedules that are protected from the adverse effects of "Murphy" events. Using time buffers to accommodate occurrences such as last-minute customer requests, unreliable vendors and absent employees, the system works to ensure that customers receive products on time. DBR is an approach for regulating the flow of WIP at or near the full capacity of the most restricted resource in the manufacturing chain.

Integrated within the Infor ERP VISUAL solution, Infor ERP VISUAL DBR works across all industries in make-to-stock and make-to-order production environments. It is an application specifically developed for companies practicing TOC management strategies to help ensure continuous improvement across business operations.

### The Drum

Rather than try to maximize the use of many resources throughout a company, DBR typically maximizes the use of the single, most heavily loaded resource, the Capacity Constrained Resource (CCR). The schedule for the CCR resource is called the "Drum" because it determines the rate at which product flows through the plant.

To identify the critical areas of capacity within a company and to plan production schedules that protect the CCR, Infor ERP VISUAL DBR offers a DBR Maintenance Window and the DBR Scheduler. With the Maintenance Window, users can determine their constraints and define problem classifications. Companies can then run the Scheduler and create multiple "what if" scenarios. Integration with Infor ERP VISUAL's Throughput Window and the Customer Impact Window helps managers access a variety of reports and inquiries and compare throughput data for each scheduling scenario, allowing them to develop achievable, profitable production plans.

### The Buffer

In DBR, companies use time "Buffers" when creating the schedules. Buffers for the CCR, shipping and assembly protect the schedule and the customer's due dates from unpredictable circumstances. Infor ERP VISUAL DBR also uses inventory buffers to ensure the availability of finished goods and raw material and accommodate changing customer demand.

## Infor ERP VISUAL DBR Benefits

- Deliver orders more consistently, satisfying market demand and increasing customer satisfaction.
- Move work-in-process through production as quickly as possible.
- Improve inventory management and ensure you have the right amount of items in stock.
- Reveal hidden capacity in your company and manage capacity constraints.
- Save time by maintaining vital, accurate decision-making data in a single, accessible system.
- Increase throughput and the overall profitability of your business.

The screenshot shows a software window titled "Drum-Buffer-Rope Maintenance - Active CCRs: MA". It contains two data tables and several control options.

CCR ID	Risk	Active	Is a Group	Shipping Buffer	CCR Buffer	Assembly Buffer	Raw	Shipping Est. 2
Free W/O	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	90	0	8	0	90
MA	30	<input checked="" type="checkbox"/>	<input type="checkbox"/>	80	64	64	32	90

  

Work Order ID	Seq No	Place No	CCR ID	Type	Status	Factor	Service Time	Seq W/O DB Type
MA1	10		MA	Shipping	Eng/Mat	1.0	8	64
MA1-1	20		MA	Assembly	Eng/Mat	1.0	8	64
MA1-2	20		MA	CCR	Eng/Mat	1.0	8	64
MA1-5	10		MA	Shipping	Eng/Mat	1.0	8	64
MA1-1-1	20		MA	Assembly	Eng/Mat	1.0	8	64
MA1-1-1	20		MA	CCR	Eng/Mat	1.0	8	64

Below the tables are checkboxes for "Show buffers for:" (Work orders, Eng. orders, Stocked parts, Purchase orders) and "Show buffers of type:" (Shipping, CCR, Assembly, Raw, Replenishment). A "Refresh" button is also present.

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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.

The Buffer Management features of Infor ERP VISUAL DBR help companies build optimal schedules. Using tools in the Buffer Management Window, companies can see which jobs are adversely affected by unexpected changes. They can monitor jobs that use a significant amount of buffer time and take timely action, or expedite orders, to ensure prompt delivery.

## The Rope

"Rope" is the "pull" technique, similar to kanban or just-in-time, for releasing material onto the shop floor. In DBR planning, the material-requirements date represents the earliest time for a company to issue material to a job. Companies should never release material before this date, and they should release only enough material to match product flow. Infor ERP VISUAL DBR takes advantage of Infor's comprehensive Material Planning module to manage the balance between supply and demand. Using the planning tools, companies can drive the manufacturing process and avoid shortages and last-minute rescheduling.

DBR techniques, when used in combination with Infor's recommended TOC training, help companies create production schedules that maximize their resources and allow them to deliver orders on time—every time.

The powerful functionality in both Easy Lean and DBR will help you streamline your processes, reduce inventory and lead times, and increase on-time delivery performance—the end result of which is unparalleled customer satisfaction and a significant advantage over your competition.

Status	Est. % Complete	CCR ID	Work Order ID	Part ID	Part Description	Seq. No.	Type	Size
SR.4	0.0	MA	W700/T	B1	DBR TEST PART 0		AspyShip	
SR.4	0.0	MA	W701/T	B2	DBR TEST PART 0		AspyShip	
SO	18.5	MA	W700/T	B1	DBR TEST PART		Shipping	
SO	25.9	MA	W701/T	B2	DBR TEST PART		Shipping	
BT.1	0.0	MA	W700/T	A1	DBR TEST PART 0		AspyShip	
BT.1	0.0	MA	W700/T	A2	DBR TEST PART 0		AspyShip	
EE.6		MA	W736/T	U1	DBR TEST PART 00		CCR	
CC.3	0.0	MA	W705/T	C2	DBR TEST PART 0		AspyShip	



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