



# Create a responsive inventory management foundation

5 building blocks to success



# What's driving your inventory decisions?



The term inventory management encompasses the practice of overseeing and controlling the ordering, storage and use of a company's components and finished goods (aka inventory). And its importance to the success of your supply chain can't be overstated.



Inventory is often the single largest asset on a company's balance sheet, putting at risk not only a whole lot of inventory but the profitability of your entire supply chain as well.

Effective inventory management all boils down to a delicate balancing act. You need to have enough of a product to satisfy customer demands, but not so much that it risks becoming obsolete or sinks your business with high carrying costs. Things get even more complicated if you work in industries with expiration dates like pharmaceuticals or consumer packaged goods. Stock too much of an item and you risk it expiring on warehouse shelves before it even has a chance to reach the end customer.

Don't just add inventory without a clear idea of when or where you'll actually need it. That puts you at greater risk of obsolete or excess inventory, and doesn't solve the problem of fulfilling customer expectations.

# Getting the right product at the right place at the right time is becoming more challenging than ever.

Increasing consumer demands are forcing companies to deal with added complexity across their supply chains. Customers want options when it comes to where and how they place orders and where, when and how they get those orders, not to mention a host of return options as well. Your initial reaction may just be to add more inventory, which in theory would ensure you could cover orders in any eventuality. The problem is, adding inventory without a clear idea of when or where you'll need it is costly to carry and puts you at risk of having excess or obsolete inventory – something your finance team certainly doesn't want on the balance sheet.

Finance and business management typically prioritize stock-out reductions to improve customer satisfaction. Manufacturing operations is most concerned with getting the right parts when they need them. Internal groups like these often have conflicting priorities – and put inventory managers in the middle to figure it all out. It's easy to get tunnel vision and weight one metric too highly over the others. It shouldn't just be a case of giving in to whoever shouts the loudest.

**Your job as an inventory manager is to strike a compromise between conflicting priorities – and those of your colleagues. When you think about your inventory priorities, what's the first thing that comes to mind?**



Is it reducing excess and obsolete stock?



Improving on-time delivery performance?



Balancing stock between distribution centers?

Your answer likely depends on your industry, the size of your organization, your role and your company's corporate strategies.

# Inventory management building blocks



Rising supply chain costs, increasing customer demand and the growing complexity of global operations are driving organizations to re-evaluate inventory management practices, mostly in search of higher profits and lower risk. They're feeling pressure to increase gross profits by cutting carrying costs, reducing order-to-deliver lead times and improving service levels.

When it comes to inventory management best practices, there isn't a one-size-fits-all formula to follow. Industry pressures, business priorities and numerous other factors all mean your company's inventory profile is unique. It is possible to overcome these pressures and make your inventory management processes more effective.

**With five simple building blocks, you can set your inventory management practices on the path to success.**

-  Elevate the inventory manager
-  Foster collaboration
-  Use the right tools
-  Manage metrics
-  Plan and optimize



**Elevate the  
inventory  
manager**

# Consider adding a defined inventory manager

Without one, responsibility for inventory could fall to a number of other individuals within your organization, including master schedulers, demand planners, material planners, buyers or even finance. More mature companies likely have a dedicated inventory manager with clearly defined corporate priorities related to inventory practices.

One note: be careful those priorities don't inadvertently create conflicting goals. Targeting reduced inventory turns and improved customer service levels simultaneously is a prime example. In this case, increasing inventory turns can seem like an attractive goal, as it typically results in reduced on-hand inventory and thus less cash tied up in carrying costs. But it can also cause a rise in expedites and a decline in service levels as you struggle to meet customer demand – especially if there's an unexpected spike.



Inventory managers balance multiple conflicting priorities, support multiple internal and external customers and are responsible for millions of dollars spread across multiple sites. It's a challenging job on the best of days.



Make proactivity a priority.

When inventory managers spend all their time urgently responding to the latest shortage, they can't track the true impact of their actions.

As Andrew Dunbar, Manager, Product Management, Business Solutions at Kinaxis, asks, "Is your inventory manager a firefighter or an air traffic controller?" If it's the former, be warned. When inventory managers are stuck spending all their time building reports and urgently responding to the latest shortage, they become experts at transferring and reallocating inventory to put out that latest fire. That means they can't always track the true impact of their actions.

As companies increase the maturity of their inventory management processes, the role of the inventory manager often evolves. Recognize the importance they play in the overall success of your supply chain. Redefining the role of the inventory manager adds new value to the company's bottom line. They aren't just victims of their colleagues' whims – they're critical drivers of profitability, sustainability and growth, and you should enable with decision-making power.



Inventory management requires collaboration, so get your material, demand, capacity and distribution planners, as well as your master scheduler and customer service representative, in on the conversation.

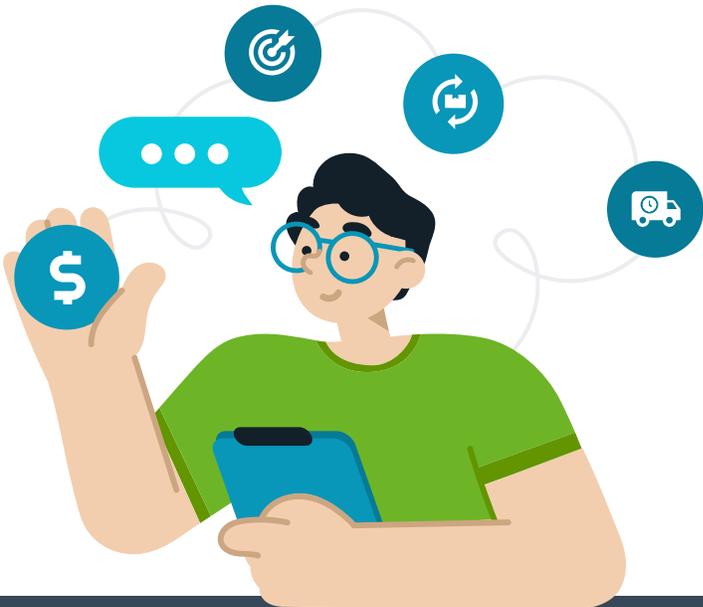




# **Foster collaboration**

For any company striving for success, inventory management is neither a niche issue nor a one-time project. It's a continuous value-driven activity that must include all key stakeholders in the process to collaboratively plan, monitor and respond to changes to inventory plans as they happen.

Even if Bob or Carol bears the title of inventory manager, it's far from being a one-person show. In fact, collaboration needs to occur across a number of functional roles. The inventory manager acts like an air traffic controller, effectively collaborating with and directing peers in a way that leads to optimized inventory results.



# Let's take a closer look at who's involved in inventory management collaboration.



**Inventory planner** defines ordering policies and minimizes the costs associated with inventory



**Capacity planner** determines the production requirements needed to meet demand



**Material planner** manages the detailed plan for all materials



**Distribution planner** ensures the availability of stock for the distribution network



**Master scheduler** internally represents customer expectations that impact network complexity



**Customer service representative** communicates commit dates and order information to the customer



**Demand planner** represents customer expectations internally that impact network complexity

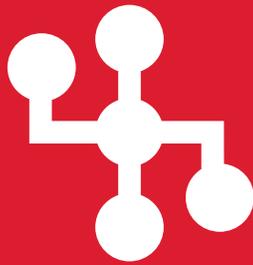
It takes a company-wide effort to achieve success, says Dunbar. “Your inventory manager doesn’t always have control over key inventory management levers.”

Critical functions like setting safety stock levels, determining order policies and finding ways to reduce lead times and cycles won’t always be in your complete control.

Empowering decision-makers helps everyone leverage inventory assets more efficiently and make more effective inventory management decisions for the company.

Savings like that will go a long way toward improving your company’s bottom line and driving inventory efficiency. But that only happens when everyone works together toward common goals. Successful collaboration leads to successful savings.





**Use the  
right tools**

Even after companies make substantial investments, meaningful inventory reduction often remains elusive to them because inventory levels stay high. That leads to a huge drain on operations performance.

The key to revolutionizing inventory management is to empower whole organizations with the best tools to be more responsive to change. When supply chain decision-makers are empowered with global supply chain visibility and capabilities to drive improved planning, risk trade-off and response management, something incredible happens. Everyone is able to leverage inventory assets more efficiently and make more effective inventory management decisions.

Many companies with higher inventory turns have found success by implementing a robust and holistic inventory management process integrated with key applications such as sales and operations planning (S&OP) and master production scheduling, on a platform that provides dynamic cross-functional collaboration capabilities.

Unfortunately, despite the importance of their roles, inventory managers don't always have the tools necessary to meet their ongoing challenges effectively, which can mean not getting the most out of your inventory investment.

Using the right tools for inventory management means you'll be able to respond to changes when they happen, not when you start feeling the impacts.



# Your inventory manager tools capabilities should include:



Providing analysis and understanding of trade-off decisions, ideally by comparing scenarios in an easy-to-visualize format like a scorecard



Integrating between supply chain planning and execution to bridge functional silos and allow for collaborative decision-making driven by corporate objectives



Measuring required inventory investment needed to achieve different service levels, and breaking down operating inventory into safety, replenishment and excess or obsolete stock



Delivering end-to-end data and process visibility using a single, harmonized data set to provide a complete picture of the current state of your supply chain

Tools equipped with these capabilities will help overcome the business pressures driving your inventory performance, like increasing gross profit margin by reducing carrying costs, improving service levels and reducing order-to-deliver lead times.

The right tools empower you to respond to changes when they happen, not when you finally start to feel the implications. For example, your inventory policy is set on a specific demand pattern, and when demands change, your policy could cause excess or shortage conditions. With the right capabilities, you'll be able to respond immediately and adjust that policy to avoid unfavorable conditions.

**Visualize inventory plans,  
predict the impacts of your  
actions and effectively  
collaborate with colleagues.**



## Tools should also be able to improve inventory processes, including:



Segmenting inventory



Setting safety stock levels at critical nodes



Replenishing inventory based on customer demand and availability



Forecasting at the SKU level





# Manage metrics

Inventory decision-makers often rely on external benchmarks that don't always deliver expected insights. Establishing a clear set of metrics and objectives will focus your inventory management on the goals that matter the most to your business, ultimately increasing overall supply chain efficiency.



## A few metrics to consider:



### Customer service level vs. targets

It's important to understand the relationship between inventory levels and customer service levels. Your targets should be high enough to satisfy customers without being so high they cut into margins by driving inventory up.



### Cash-to-cash cycle time

This is a measurement of how long it takes inventory investments to pay themselves back with a profit. The shorter the cycle time, the more often you collect. This may be the number one metric for companies looking to make the most of tight profit margins.



### Total inventory cost

Inventory transfers, small lot sizes and short supply periods all help keep inventory levels low, reduce cost and lead times. But they also put service levels at risk if there's a disruption. Similarly, high safety stock can increase customer service levels, but may send storage costs skyrocketing.



### Inventory turns

A combination of higher turns and strong customer service levels usually means reduced cycle times and is a good measure of process improvements. Lower turns mean you could be ordering too much, ordering the wrong thing or not delivering what the customer wants when they want it



**Plan and  
optimize**

Inventory planning and optimization go hand-in-hand with inventory management. Together they can free up working capital in times of growth and reduce costs and ensure liquidity during economic downturns. Optimizing inventory provides a systematic and statistical way to effectively cover supply chain risks. It enables you to make informed trade-offs between service targets and inventory levels, maximizing

corporate performance. Based heavily on analytics, inventory optimization is no easy feat to accomplish. You'll have to overcome distributed data and inventory, navigate a complex network of locations and bills of material (BOMs) and manage the configuration of thousands of parts. Add in dated technologies that fail to support collaboration, and you may be making critical decisions in the dark.



## Optimization techniques

You'll also need to determine which optimization techniques will work best for your organization. Two of the most common are single-echelon inventory optimization (SEIO) and multi-echelon inventory optimization (MEIO). The right one for you depends solely on the nature of your business.



### Single-echelon inventory optimization (SEIO)

SEIO works best for those building highly customized, one-off products, like ships or railcars. For those dealing with large volumes of similar stock, usually distributed across multiple nodes, MEIO works better. SEIO balances inventory one part at a time. You're focused on either incoming material flow or outgoing material flow – not both simultaneously. It's sequential, with forecast demand determining required inventory one level at a time.



### Multi-echelon inventory optimization (MEIO)

In contrast, MEIO examines the entire supply chain holistically and determines required inventory based on demand variability at all nodes. For example, if a retailer receives a product from a distribution center, both the retailer and the distribution center represent different echelons (or levels) of the supply chain. You'll focus on incoming and outgoing material flow simultaneously, working to minimize inventory costs while maintaining service levels. In MEIO, the goal is to continually update and optimize inventory levels across all echelons.

**No matter which technique you use, optimizing your inventory provides a building block for successful inventory management – ultimately leading to improved overall supply chain efficiency.**

# Fitting the pieces together



Empowering inventory managers goes a long way in lowering inventory costs and mitigating risks associated with your materials and finished goods. With the right data, connected to the right peers and with the right tools and targets, your inventory management processes will be more effective. The result will be delivering on the goal of getting customers exactly what they want, when, where, and how they want it.

Raw materials, works-in-process, spare parts and even goods in retail stores can make up 50 percent of your total inventory.

One of the most common inventory mistakes is only looking at it from the perspective of the finished goods sitting in your warehouse. Raw materials, works in process, spare parts and even goods in retail stores can make up half of your total inventory.

By combining the five building blocks outlined above, you'll be well on your way to creating a balanced inventory management and optimization strategy that accounts for all aspects of inventory – not just finished goods. You'll see improved margins, lower inventory levels and fewer excess or shortage conditions.

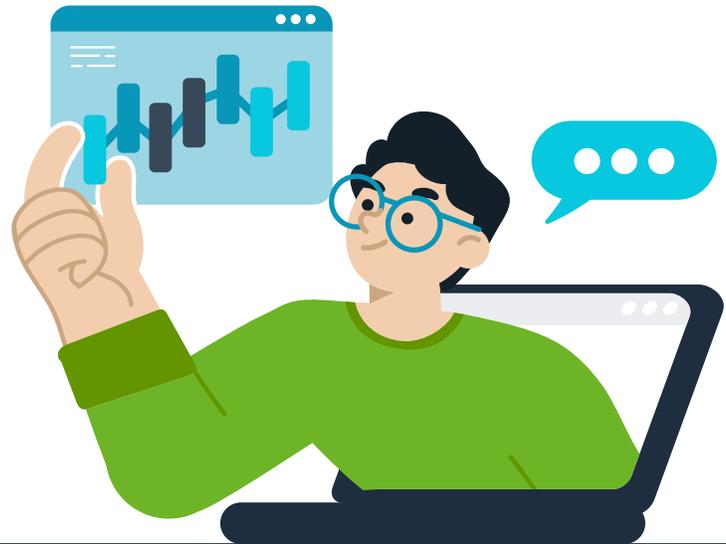
Both your customers and your CFO will thank you.

# Easy inventory management and optimization with RapidResponse



Inventory imbalances can throw an entire supply chain askew. Keep everything on an even path with Kinaxis® RapidResponse®, by optimizing inventory levels across the entire network with complete visibility into all of your sites.

Avoid excesses that chip away at revenues and shortages that stall timely order fulfillment. Stay in-the-know regarding lead times and changes to parts performance, so you can make quick policy adjustments as needed. With connected, end-to-end management, your inventory can stay aligned with the rest of the business.



## Powerful capabilities drive impressive results



Proactively identify risks and opportunities with visibility into cross-site inventories



Improve performance and monitor changes with inventory quality ratios



Make informed trade-offs that balance on-time delivery targets and inventory levels to maximize corporate performance



Easily monitor and understand trends and exceptions with intuitive, interactive dashboards

# Inventory management done differently



So here's the thing. The way we handle inventory management within RapidResponse is different – really different. But don't be scared. Since it's way less complicated and time-consuming thanks to the power of concurrent planning, after seeing how easy it is to resolve excess and obsolete inventory, you'll be wondering how you ever did it the old-fashioned way.

## 1 Do a reality check

Check inventory details and stock levels to see if life's thrown any curveballs your company's way.

## 2 Adjust plans to reflect real life

Make any needed changes to your plans to address excess or obsolete inventory.

## 3 Watch the magic of concurrent planning happen

Blink and you'll miss it! Your entire supply chain automatically rebalances in seconds, alerting you to any exceptions that need your attention.



## 6 Sit back, relax and wait for life's next curveball

Rest easy knowing no matter how fast or frequent things change across your supply chain, you've got the agility to respond quickly and confidently.

## 5 Put your plan into action

Secure signoff, push the chosen scenario live with a single click and head down the path to execution glory.

## 4 Weigh your options

Spin up any number of scenarios in real time to evaluate trade-offs and options, comparing them all to each other, the current plan and critical KPIs.

# Gauge performance without all the detective work

Customization is great, but some options should just come standard. Our Inventory Management application's out-of-the-box dashboards give you performance insights on day one.

With the **inventory manager dashboard**, keep tabs on the metrics that matter most – customer service levels, inventory details and quality ratios, corporate KPIs and more.

## Standard measures include:



### On hand vs. target

A dollarized measurement of actual inventory by part class – e.g., finished goods (FG), semi-finished goods (WIP) and raw material (RM) – compared against the annual plan



### On hand by ABC classification

A dollarized measurement of actual inventory by ABC classification of parts compared against the annual plan



### Demonstrated service level

A demonstrated customer service level percentage, per period, compared against the annual plan



### Periods of supply by part category

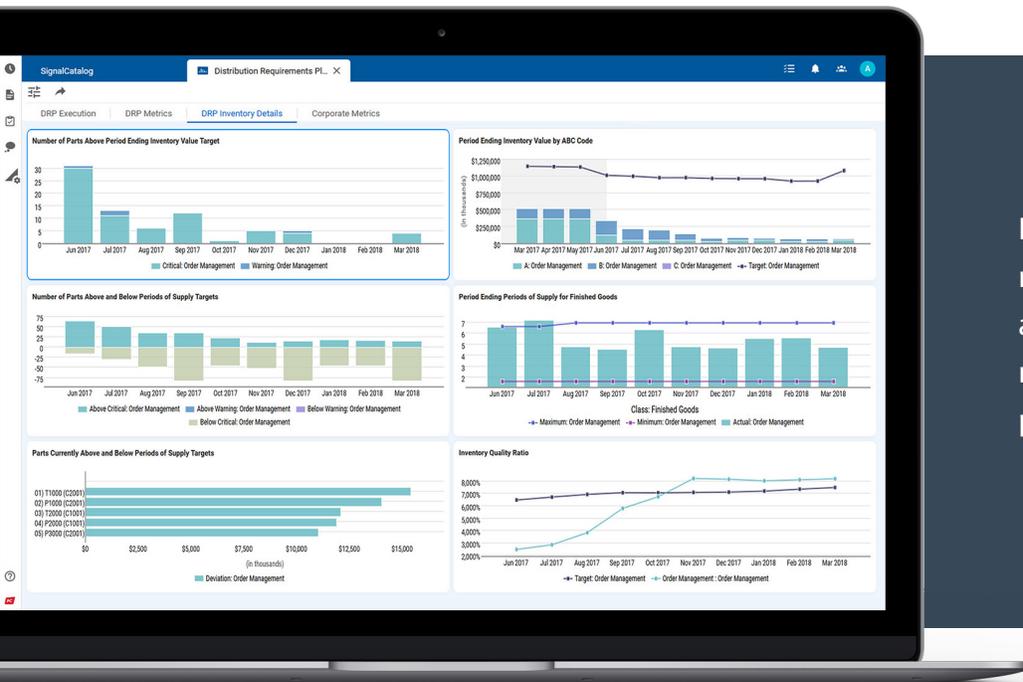
A measurement of the number of periods of supply that the ending inventory balance (per period and category) is expected to cover



### Excess and obsolete value

A time-phased measurement of the excess or obsolete value over a horizon





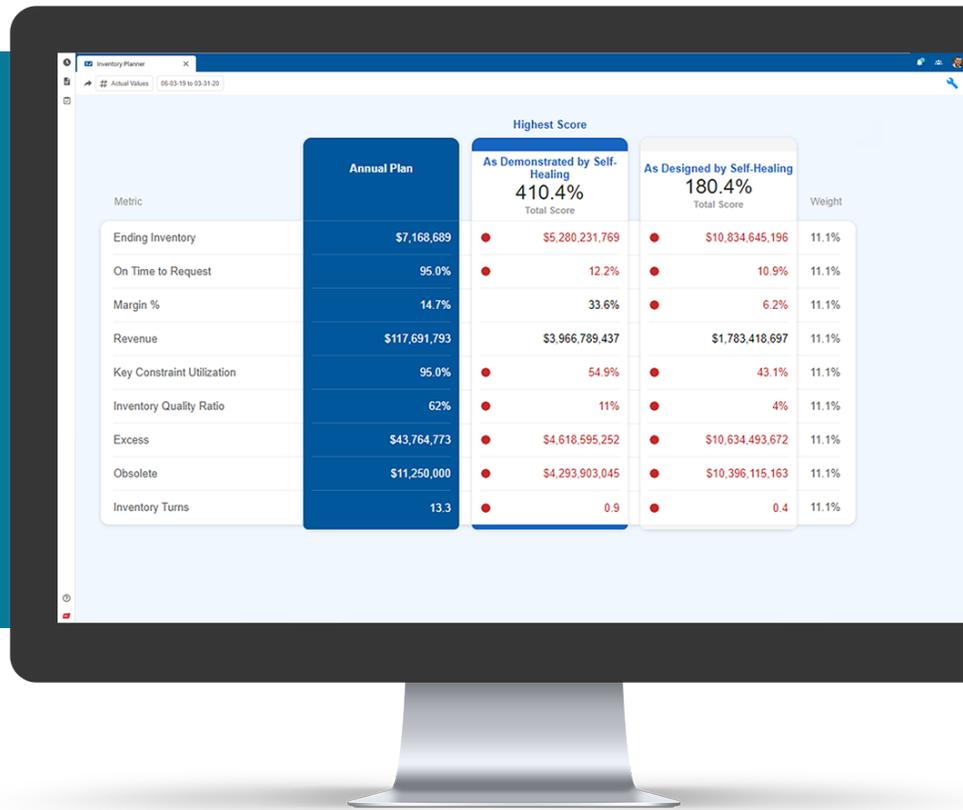
Keep track of distribution requirements, DRP execution and metrics to keep product moving along with a dedicated planning dashboard.

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“With RapidResponse, we’ve improved inventory turns by 20%, due to our ability to avoid stock outs by having much faster prediction capabilities.”

– BUSINESS PROJECT MANAGER,  
LARGE ENTERPRISE ELECTRONICS COMPANY

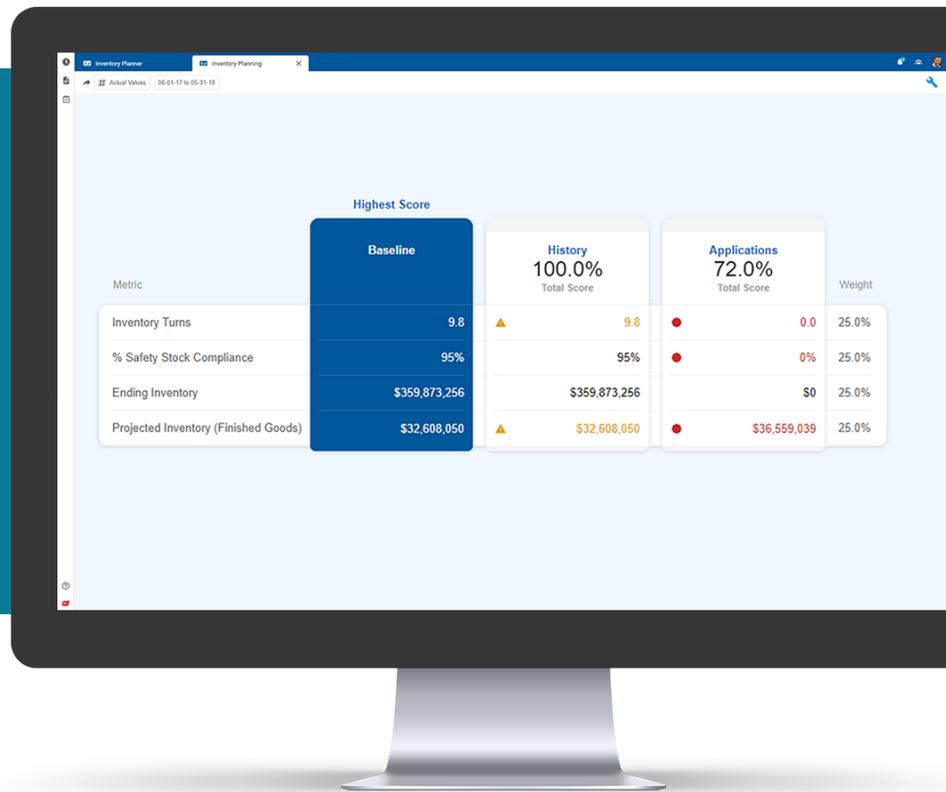
Use the inventory planner scorecard to track your management progress on annual plans and weight specific metrics such as ending inventory, revenue, key constraint utilization and more.



Part	Site	End Items	Description	Responsible	Type	Safety Stock	Date	Current	Recommend	Current	Calcula...
1	C1001	P1001	8" Case kit	Tom Gregorchik	Make	Multi-Echelon	06-03-19	1,169	1,169	0%	0%
2	C1001	P1001	8" Case kit	Tom Gregorchik	Make	Multi-Echelon	07-01-19	954	954	0%	0%
3	C1001	P1001	8" Case kit	Tom Gregorchik	Make	Multi-Echelon	08-01-19	963	963	0%	0%
4	C1001	P1001	8" Case kit	Tom Gregorchik	Make	Multi-Echelon	09-02-19	1,049	1,049	0%	0%
5	C1001	P1001	8" Case kit	Tom Gregorchik	Make	Multi-Echelon	10-01-19	1,145	1,145	0%	0%
6	C1001	P1001	8" Case kit	Tom Gregorchik	Make	Multi-Echelon	11-01-19	1,054	1,054	0%	0%
7	C1001	P1001	8" Case kit	Tom Gregorchik	Make	Multi-Echelon	12-02-19	1,365	1,365	0%	0%
8	C1001	P1001	8" Case kit	Tom Gregorchik	Make	Multi-Echelon	01-01-20	1,221	1,221	0%	0%
9	C1001	P1001	8" Case kit	Tom Gregorchik	Make	Multi-Echelon	02-03-20	1,255	1,255	0%	0%
10	C1001	P1001	8" Case kit	Tom Gregorchik	Make	Multi-Echelon	03-02-20	1,447	1,447	0%	0%
11	C1001	P1001	8" Case kit	Tom Gregorchik	Make	Multi-Echelon	04-01-20	1,105	1,105	0%	0%
12	C1001	P1001	8" Case kit	Tom Gregorchik	Make	Multi-Echelon	05-01-20	1,169	1,169	0%	0%
13	T1000	C1001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	06-03-19	7,505	7,505	0%	0%
14	T1000	C1001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	07-01-19	6,044	6,044	0%	0%
15	T1000	C1001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	08-01-19	7,457	7,457	0%	0%
16	T1000	C1001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	09-02-19	6,805	6,805	0%	0%
17	T1000	C1001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	10-01-19	6,986	6,986	0%	0%
18	T1000	C1001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	11-01-19	8,061	8,061	0%	0%
19	T1000	C1001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	12-02-19	8,806	8,806	0%	0%
20	T1000	C1001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	01-01-20	7,926	7,926	0%	0%
21	T1000	C1001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	02-03-20	8,195	8,195	0%	0%
22	T1000	C1001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	03-02-20	9,261	9,261	0%	0%
23	T1000	C1001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	04-01-20	6,498	6,498	0%	0%
24	T1000	C1001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	05-01-20	7,541	7,541	0%	0%
25	T1000	C2001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	06-03-19	13,045	13,045	0%	0%
26	T1000	C2001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	07-01-19	10,764	10,764	0%	0%
27	T1000	C2001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	08-01-19	11,918	11,918	0%	0%
28	T1000	C2001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	09-02-19	11,709	11,709	0%	0%
29	T1000	C2001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	10-01-19	10,789	10,789	0%	0%
30	T1000	C2001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	11-01-19	11,761	11,761	0%	0%
31	T1000	C2001	1000 Tablet	Kerry Currier	MRP	Multi-Echelon	12-02-19	12,004	12,004	0%	0%

Use the comprehensive RapidResponse inventory planning workbook to document responsibilities, projections and everything else you need to keep inventory management under tight control.

At a glance, see how inventory turns, percentage of safety stock compliance, ending inventory and projected inventory are performing with the Inventory Planning scorecard feature.



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“Inventory turns have doubled and our excess/obsolete inventory is at an all-time low. Our customers feel secure in knowing that we are managing the supply chain and not letting it manage us!”

– TOM ROSSI, DIRECTOR OF PROCUREMENT & MATERIALS,  
MC ASSEMBLY



With the fastest end-to-end go-live process on the market, Kinaxis RapidResponse can quickly and effectively provide an inventory management solution tailored to meet the specific needs of your business, no matter how complex your supply chain.

[LEARN MORE](#)

### About Kinaxis Inc.

Everyday volatility and uncertainty demand quick action. Kinaxis delivers the agility to make fast, confident decisions across integrated business planning and the digital supply chain. People can plan better, live better and change the world. Trusted by innovative brands, we combine human intelligence with AI and concurrent planning to help companies plan for any future, monitor risks and opportunities and respond at the pace of change. Powered by an extensible, cloud-based platform, Kinaxis delivers industry-proven applications so everyone can know sooner, act faster and remove waste.

Don't believe us? Ask us to prove it. Learn more at [Kinaxis.com](https://www.kinaxis.com).

### Here's more to discover on this topic:

- [IPSEN: Meeting customer needs without adding inventory costs](#)
- [Thinking differently about supply chain planning](#)
- [Schneider Electric: Rebalancing stock across the network](#)