

**Adexa**

*The Material Intensive Supply Chain*  
*Proactive constraint elimination and supplier management*



**ADEXA**

## The Challenges You Face

Ideally, companies would require their suppliers to provide materials “just in time” or even in “just in sequence” to eliminate their material inventories. No inventories, no carrying costs. In the real world, of course, it’s not possible. Material inventories are a safety stock against unforeseen circumstances that can cause demand spikes, operational disruptions and supply chain disruptions. Safety stocks are a necessary evil, an insurance policy that adds to your costs and may or may not provide any returns. So it’s a balancing act...a walk along the fine line between rapidly meeting demand and profitably meeting demand. Where you draw the line will impact the profitability of the business, and today, in our more accountable economic times, you might want to base your decision on scientific evidence, rather than a gut-feeling or the input of a few trusted colleagues.

## The Science of Material Intensive SCP

The science of planning for the material intensive supply chain is complex because planning combinations and permutations are almost infinite. But complex science does not have to be labor intensive. With Adexa, the process of analyzing the financial and logistical impact of possible supply chain plans is a dynamic process, and the results are prioritized to accomplish your specific objectives.

The following chart lists some common symptoms displayed by an out of balance supply chain and the treatments Adexa can deliver:

<b>SYMPTOM</b>	<b>CURE</b>
> Excessive inventory levels or costs	> Improve allocation of inventory and targets based on custom rules and constraints
> Poor gross margins	> Lower cost of inventory by reducing the need for high safety stock and manage the effects of obsolescence
> Under-utilization of resources	> Insure materials are available when needed
> Higher than expected purchasing costs	> Improve human and material asset utilization
> Poor Supplier Order Fill rate and on time delivery	> Synchronize critical material requirements with suppliers

Adexa optimizes material intensive supply chain planning by ensuring the right materials are available in the right quantities at the right time — not too soon and not too late — to produce and deliver products that will deliver the highest returns to the company. Adexa dynamically identifies:

- > The best allocation of material inventory
- > The most profitable commitment dates to buy from specific suppliers
- > When supply is insufficient to meet demand in capacity allocation plans
- > The capacity of suppliers, lead times and purchasing commitments
- > The trade-off between safety stock and customer service levels
- > Inventory constraints and the costs associated with expedites

### **Value Proposition**

Adexa's material intensive SCP solution enables your company to manage material and finished goods inventories to maximize profits.

The system allows you to meet delivery dates, even when preferred supplies are short, by automatically identifying which alternate supplies can be substituted. You can also drill-down to determine the impact of expedites on specific orders and on all orders in the system. On the cost side SCP minimizes safety stocks and the risk of material obsolescence by making use of alternatives and recognizing when materials are near obsolescence. The system prioritizes the use of these materials before they must be written off as a loss to the company. On the customer side, while still maintaining production efficiency and keeping down inventory costs, SCP determines how to best allocate material supply to orders, and when to make material purchases. The decision logic automatically considers the trade-off between inventory levels and customer expectations, which are defined by the user of the SCP solution.

Adexa provides real-time visibility to material planners, enabling them to see and understand the material and component supply requirements based on current – even unexpected – fluctuations in demand, manufacturing processes and supplier deliveries.

**Key features:**

- > A dynamic rules-based system that generates material requirements based on complex supply chain constraints.
- > An intelligent problem solver to help Material Planners optimize allocations of materials to orders and minimize the risk of obsolescence.
- > Buyers, suppliers and other downstream stakeholders can receive material requirements that are based on real-world constraints. This enables the operations planning process to extend beyond the walls of the enterprise.
- > A secure, web-based architecture that provides browser access to the software from any location, or to electronically integrate plans inside and outside of the system.
- > The ability to represent real-life constraints, such as supplier lead-times, complex substitution rules and alternative materials, as well as alternative supply sources (vendor allocation) and other unique constraints that apply to an enterprise.
- > Visibility into a supply's impact on customer orders, allowing the planner to proactively expedite supplies and turn late orders into on time orders.
- > Visibility to allow planners to quickly react to unforeseen events, such as a delivery truck breakdown. Users can quickly reallocate materials to insure customer orders continue to be delivered on time.
- > Increased production efficiency. Planners can base their plans on the arrival of key components and let the system generate material requirements for non-critical components. For example, a vehicle cannot be assembled without an engine but a bumper can be retrofitted at a later date.

## Advantages of the Adexa Material Intensive SCP Solution

The Adexa SCP solution was designed to address the specific material planning issues faced by manufacturers, every day. When shortages occur, it's not good enough to order materials and wait for them to arrive, which is all that some planning engines can determine. These "solutions" are designed to create supply plans, not to solve material planning issues. Adexa offers rules-based heuristics within the solution, which are customizable to meet specific company needs. Competitive offerings deliver default allocation rules that are often simplistic, and often lead to large amounts of safety stock to protect against unforeseen circumstances.

Adexa's efficient, yet powerful, data model allows for the easy maintenance of information that's vital to the generation of optimized material allocation and purchasing plans. The efficient storage of material constraints, such as lead-times and ordering quantities, along with the ability to quickly identify a single or group of alternate materials, are advantages that are unique to Adexa.

Adexa's material intensive SCP solution is the most advanced and easiest to use system on the market today. Learn more at [www.Adexa.com](http://www.Adexa.com)