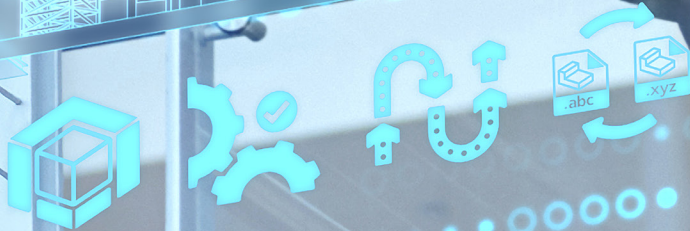
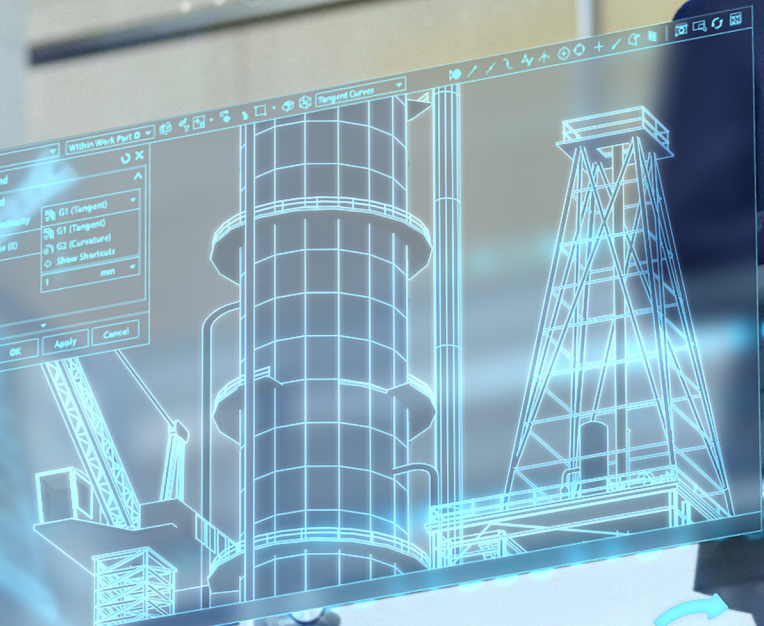


**SIEMENS**

*Ingenuity for life*



Siemens Digital Industries Software

# Opcenter APS

Advanced planning and scheduling

[siemens.com/mom](https://www.siemens.com/mom)

# Enhancing the synchronization of your manufacturing processes

## Leading advanced planning and scheduling software.

Opcenter APS is a family of production planning and scheduling software products that improve the synchronization of your manufacturing processes, giving you greater visibility and control to increase utilization and on-time delivery, while reducing inventory levels and waste. Opcenter APS is a highly customizable capacity planning and scheduling package.

### Key benefits achieved with Opcenter APS

- Better forward visibility of production
- Improved utilization and efficiency
- Reduction of inventory and work-in-progress (WIP)
- Easier impact analysis and change management
- Better customer service

### A strategic investment

Manufacturers must react quickly and intelligently to unexpected changes, while being able to respond to shorter lead times and satisfy customer demands. Opcenter APS products have been specifically developed to meet this need, using advanced algorithms that balance demand and capacity to generate achievable production schedules.

### What about my existing software?

Opcenter APS products are designed to work alongside and facilitate, rather than replace, existing systems. They can be tightly integrated with enterprise resource planning (ERP), manufacturing execution system (MES), accounting and forecasting software, shop floor data collection and spreadsheets.

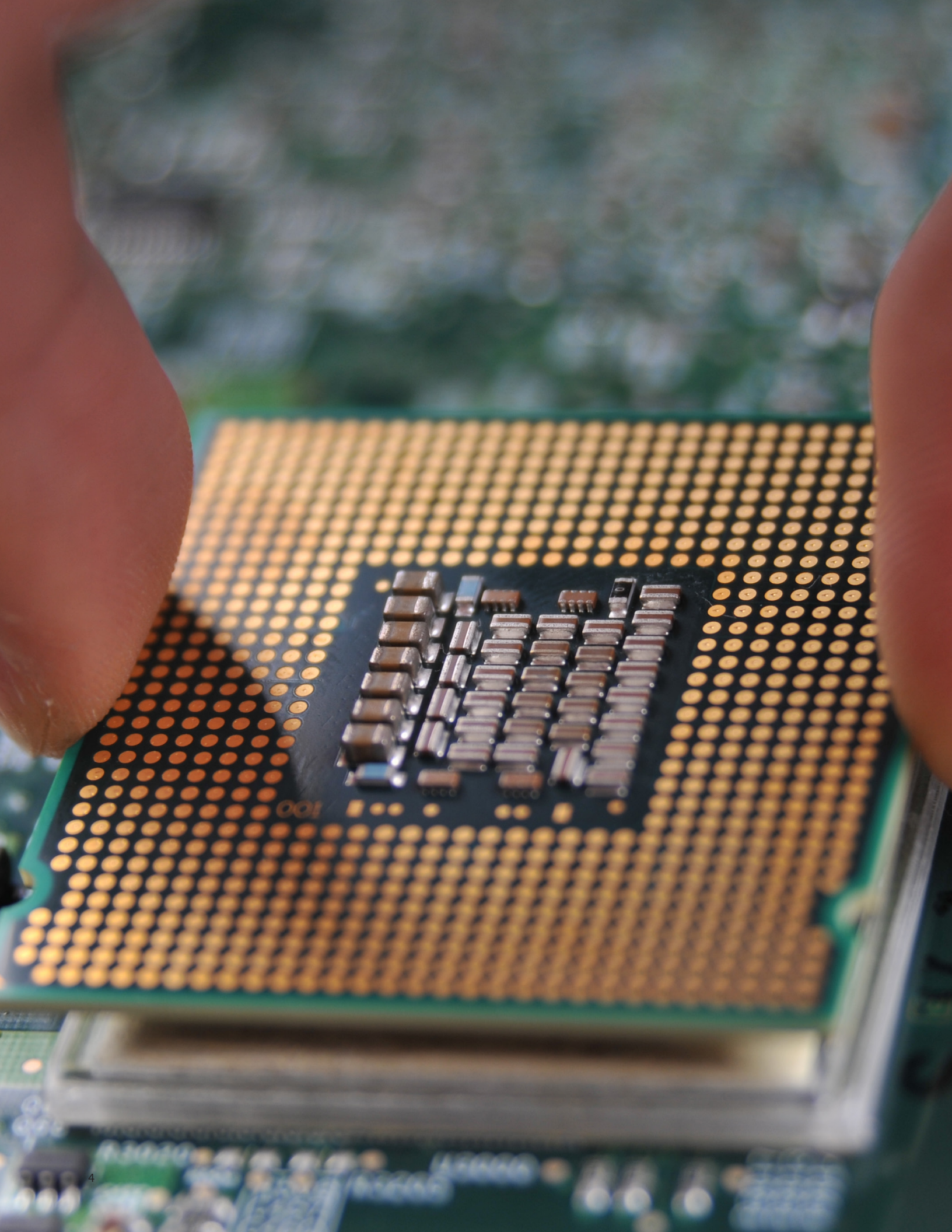
### A complete family of products

Opcenter APS is not a single point solution. It is a family of products that have different levels of functionality and pricing so you can select the system that satisfies both your needs and budget. Upgrading to another product as your needs change is simple and easy.

Products from the Opcenter APS range can be used for long-term strategic planning covering months and years ahead, medium-term tactical planning with a few weeks planning horizon and for detailed sequencing and scheduling.







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### Complete customization

Opcenter APS can be installed straight out of the box for immediate benefits, but can also be customized and configured to meet a company's planning and scheduling needs no matter what they are.

### Fully interactive

Products in the Opcenter APS range provide the interactivity that modern businesses need in order to react efficiently to unexpected changes in demand and capacity and thereby maximize on-time deliveries.

### Visibility is key

You need to see the impact of your decisions. This cannot be achieved with more generalized tools, such as a spreadsheet. Opcenter APS helps you visualize the current load, see the impact of unexpected events, ask what-if questions and compare alternatives, all before the decision is made.

### Who uses Opcenter APS?

Many companies, ranging from small and medium-sized businesses to large corporations, employ Opcenter APS as part of their global supply chain solution. These companies are located around the world. The software's flexibility means that it is used by companies in almost every sector of manufacturing, services and logistics.

- Automotive and aerospace
- Chemicals and pharmaceuticals
- Electronics and electrical equipment
- Food and beverage
- Furniture and wood products
- Glass and ceramics
- Machinery and precision engineering
- Metals and metal fabricated products
- Oil and gas
- Packaging, printing and publishing
- Rubber and plastics
- Textiles and apparel
- Transport and logistics

### Worldwide expertise

Opcenter APS is sold, implemented and supported by a network of accredited partners and solution providers. No matter where you are located you will find expertise to make sure Opcenter APS is a fit for your needs.

# Opcenter Planning

Opcenter APS is a strategic decision support tool that combines forecast and long-term orders that target stock levels and bucketed resource capacities to ensure that future demand is met. It is an essential planning tool for companies that want to enhance competitiveness, increase profits and improve customer service. Effective purchasing of economic quantities of raw materials and timely use of this raw material is key to reducing one of the greatest production problems – unnecessarily high stock levels of both finished product and raw material and the possibility of this stock reaching its sell-by date before being consumed.

Planning can be executed in finite or infinite capacity mode and planning time periods can be days, weeks, months or a combination of all three. Parameters can be set against each item code, which allows different calculations for each item. For example, some products may be in make-to-stock mode while others are in make-to-order mode.

If used together with a Opcenter Scheduling system, detailed production schedule information can be sent back to the planning system and this will override planned volume with scheduled volume. The master production schedule (MPS) can then be recalculated using the production schedule as the base for new results.

## Opcenter Planning benefits

- Decision support for long-term strategy
- Production load balancing and smoothing
- Rapid master production schedule generation
- Ability to respond quickly to changes in demand



A man wearing a blue button-down shirt and an orange hard hat is looking down at a laptop. He is in a warehouse or factory setting, with stacks of cardboard boxes and materials visible in the background. The scene is lit with warm, industrial lighting.

## What's the difference between planning and scheduling?

The basic difference between planning software and scheduling software is that planning systems are bucketed (monthly, weekly, daily) and cannot preserve operation sequences within the time bucket. True scheduling systems are bucketless, preserving sequencing, and capable of generating work-to or dispatch lists. Assigning an operation to a resource is a key function for achieving operational efficiency and optimizing performance. Detailed scheduling uses a shorter time horizon and a much more detailed process route than a planning system.





# Opcenter Scheduling

Opcenter Scheduling is a finite capacity scheduling tool based on a detailed model of the plant. It takes into account the actual availability of resources and considers multiple constraints to produce an achievable schedule. It is a scheduling tool primarily for manufacturers that need to schedule machines, production lines and resources, but is also used in services and logistics.

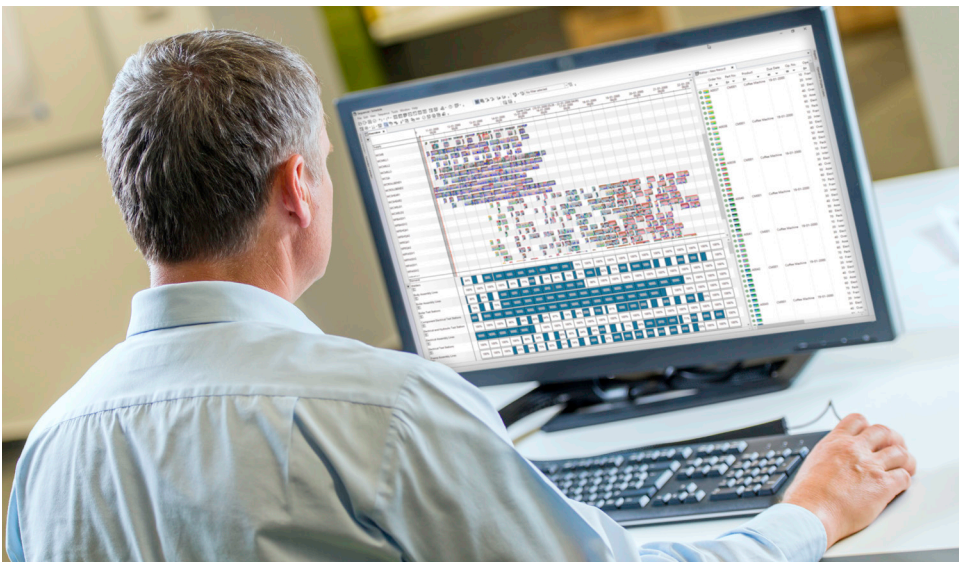
The purpose of scheduling in manufacturing is to minimize production time and costs by telling a production facility what to make, when to make it, and what staff and equipment to use. Production scheduling aims to maximize the efficiency of the operation and reduce costs. Detailed scheduling software is an important tool for many companies because it can have a major impact on the productivity of a process.

Typically, the input is manufacturing orders that have a process route associated with each one, defining the operational steps to make the product. The user then can load the orders onto

individual resources using scheduling rules and interacting with the schedule using the Gantt charts and generated plots. A typical output would be a dispatch list for each resource.

## Opcenter Scheduling benefits

- Better resource utilization
- Reduction of setup and changeovers
- Reduction of inventory and work-in-progress
- Detailed visibility of the production load
- Faster what-if scenario modeling
- Improved on-time delivery



# Realizing innovation in the digital enterprise

## With the manufacturing operations management (MOM) software portfolio from Siemens Digital Industries Software

Siemens now offers a holistic automation solution covering all major Industry 4.0 requirements, and Siemens Digital Industries Software delivers software to support the Digital Enterprise.

Manufacturers are better equipped to initiate or respond to disruptive innovation trends when their processes are fully digitalized.

Digitalization transforms the innovation process into a proactive agent in driving new business opportunities, enabling manufacturers to weave a digital thread through three distinct phases:

**Ideation**, the traditional area of product concept and design

**Realization**, including production planning, production engineering, factory automation and production execution systems

**Utilization**, the service and support of products in the field and the feedback loop from these products to the other domains

Siemens Digital Industries Software solutions smoothly connect major parts of the product and production life cycle. Powerful product lifecycle management (PLM) software enables the development and optimization of new products on an entirely virtual basis. In the real manufacturing world, the concept of totally integrated automation (TIA) ensures the efficient interoperability of all automation components.

To digitally transform the realization phase, Siemens provides a complete portfolio of solutions for manufacturing operations management (MOM), bridging PLM and automation domains and enabling customers to implement strategies for the complete digitalization and integration of their product and production lifecycles.



### Opcenter capabilities

Siemens offers its harmonized manufacturing operations management solutions in one portfolio, Opcenter, to enable digital transformation of manufacturing. The portfolio encompasses integrated MOM capabilities, including advanced planning and scheduling, manufacturing execution, quality management, manufacturing intelligence and performance, and formulation, specification and laboratory management. Opcenter consolidates legacy solutions using best-in-class technologies that help customers meet demands for production efficiency, quality, visibility and reduced time to production. Opcenter adds value by incorporating benchmark technologies and industry-specific capabilities that are easy to deploy, configure, extend and integrate with other systems across the value chain, including product lifecycle management, enterprise resource planning and shop floor automation solutions for closed-loop manufacturing. Opcenter delivers a holistic solution that enables manufacturers to implement strategies for the complete digitalization of manufacturing operations. The portfolio serves major players in industries such as aerospace and defense, automotive, industrial machinery, heavy equipment, chemicals, consumer packed goods, food and beverage, life sciences, electronics, semiconductor and medical devices.

### **About Siemens Digital Industries Software**

Siemens Digital Industries Software is driving transformation to enable a digital enterprise where engineering, manufacturing and electronics design meet tomorrow. Our solutions help companies of all sizes create and leverage digital twins that provide organizations with new insights, opportunities and levels of automation to drive innovation. For more information on Siemens Digital Industries Software products and services, visit [siemens.com/software](https://www.siemens.com/software) or follow us on [LinkedIn](#), [Twitter](#), [Facebook](#) and [Instagram](#). Siemens Digital Industries Software – Where today meets tomorrow.

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