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Ingenuity for life

SIMATIC IT Preactor APS 2015r2

Initializing

Preactor AP Ultimate

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Siemens PLM Software

SIMATIC IT Preactor APS

Advanced Planning and
Scheduling

siemens.com/preactor

SIMATIC IT Preactor Advanced Planning & Scheduling

World leading advanced planning and scheduling software.

SIMATIC IT Preactor 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 utilisation and on-time delivery, while reducing inventory levels and waste. SIMATIC IT Preactor APS is a highly customizable capacity planning and scheduling package.

Key benefits achieved with SIMATIC IT Preactor

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



A strategic investment

Manufacturers must react quickly and intelligently to unexpected changes, while still being able to respond to shorter lead times and satisfy customer demand.

SIMATIC IT Preactor 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?

SIMATIC IT Preactor products are designed to work alongside and facilitate, rather than replace, existing systems. They can be tightly integrated with ERP, MES, accounting and forecasting software, shop floor data collection and spreadsheets.

A complete family of products

SIMATIC IT Preactor APS is not a single point solution. It is a family of products that have different levels of functionality and pricing

so that you can select the system that satisfies both your needs and your budget. Upgrading to another product as your needs change is simple and easy.

Products from the SIMATIC IT Preactor 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.





Digitalize operations. Realize innovation.

Siemens PLM Software, a business unit of the Siemens Digital Factory Division, is a leading global provider of product lifecycle management (PLM) and manufacturing operations management (MOM) software, systems and services with over 15 million licensed seats and more than 140,000 customers worldwide. Headquartered in Plano, Texas, Siemens PLM Software works collaboratively with its customers to provide industry software solutions that help companies everywhere achieve a sustainable competitive advantage by making real the innovations that matter.

For more information on Siemens PLM Software products and services, visit www.siemens.com/mom



Complete customization

SIMATIC IT Preactor 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. Its flexibility is unparalleled.

Fully interactive

Products in the SIMATIC IT Preactor 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. SIMATIC IT Preactor helps to 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 SIMATIC IT Preactor APS?

Many companies, ranging from small and medium sized businesses to large corporations, employ SIMATIC IT Preactor 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
- Packaging, Printing and Publishing
- Rubber and Plastics
- Textiles and Apparel
- Transport and Logistics

Worldwide expertise

SIMATIC IT Preactor 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 SIMATIC IT Preactor is a fit for your needs.

SIMATIC IT Preactor Advanced Planning

SIMATIC IT Preactor AP is strategic decision support tool which combines forecast and long term orders with target stock levels and bucketed resource capacities to ensure that future demand is met. It is an essential planning tool for companies who 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 - unnecessary 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 whilst others are in 'make-to-order' mode.

If used together with a SIMATIC IT Preactor scheduling system, detailed production schedule information can be sent back to the planning system and this will override planned volume with scheduled volume. MPS can then be re-calculated using production schedule as the base for new results.

SIMATIC IT Preactor Advanced Planning benefits

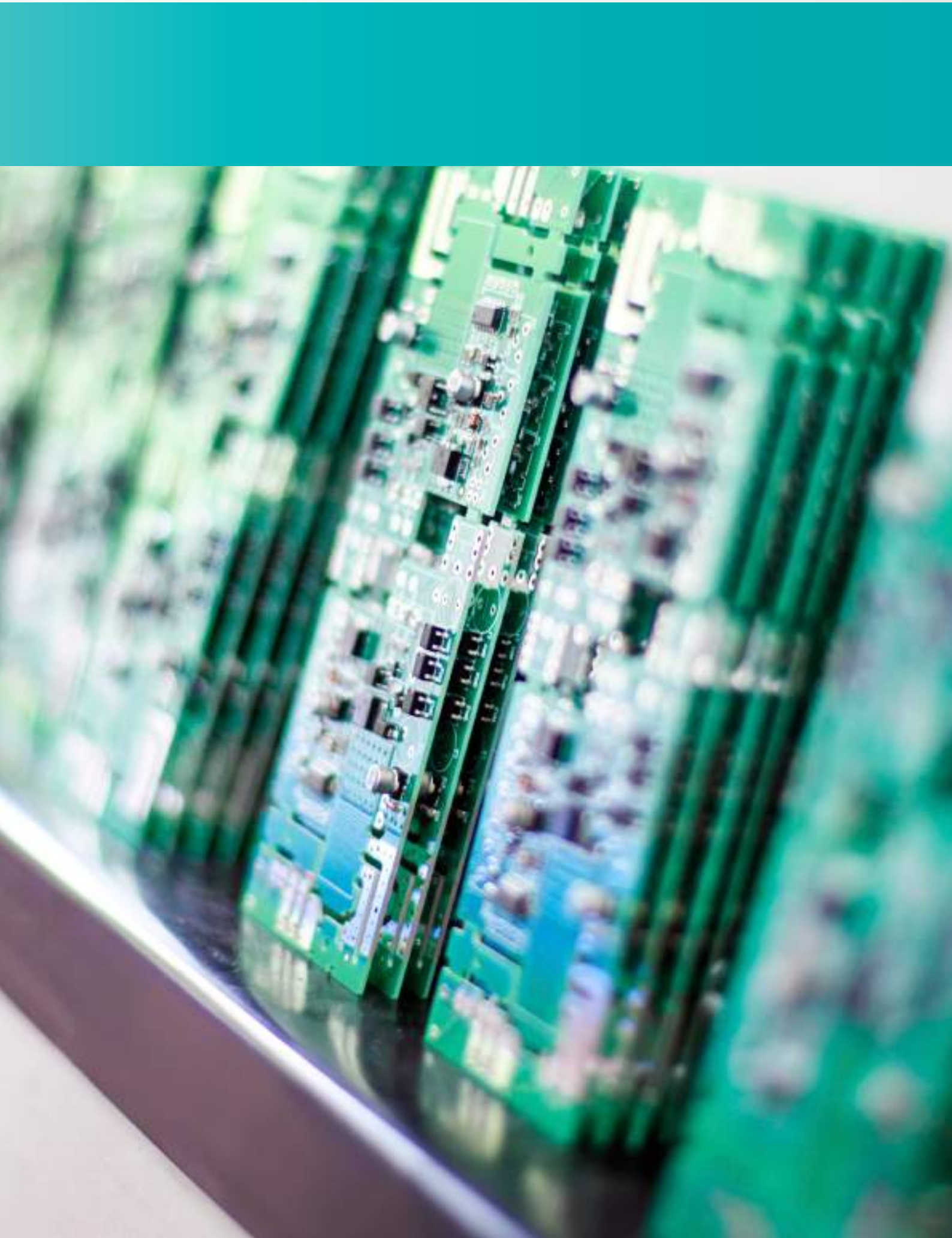
- Decision support for long term strategy
- Production load balancing and smoothing
- Rapid master production schedule generation
- Ability to respond quickly to changes in demand





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. Assignment of operation to resource is a key function to achieve operational efficiency and optimizing performance. Detailed scheduling uses a shorter time horizon and a much more detailed process route than a planning system.



SIMATIC IT Preactor Advanced Scheduling

SIMATIC IT Preactor AS 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 who need to schedule machines, production lines and resources, but is also used in services and logistics.

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

Typically the input would be manufacturing orders which have a process route associated with each defining the operation steps to make the product. The user then can load the orders onto individual resources using scheduling rules and

interact with the schedule using the Gantt charts and plots that are generated. A typical output would be a dispatch list for each resource.

SIMATIC IT Preactor Advanced Scheduling benefits

- Better resource utilization
- Reduction of setup and changeovers
- Reduction of inventory and WIP
- Detailed visibility of the production load
- Faster 'what if' scenario modelling
- Improved on-time delivery



Realizing innovation in the Digital Enterprise

Using Siemens PLM Software's MOM solutions, our customers are able to model, visualize, update, and harmonize production processes globally.

Siemens PLM Software now offers a holistic automation solution covering all major Industry 4.0 requirements: the Digital Enterprise Software Suite.

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:

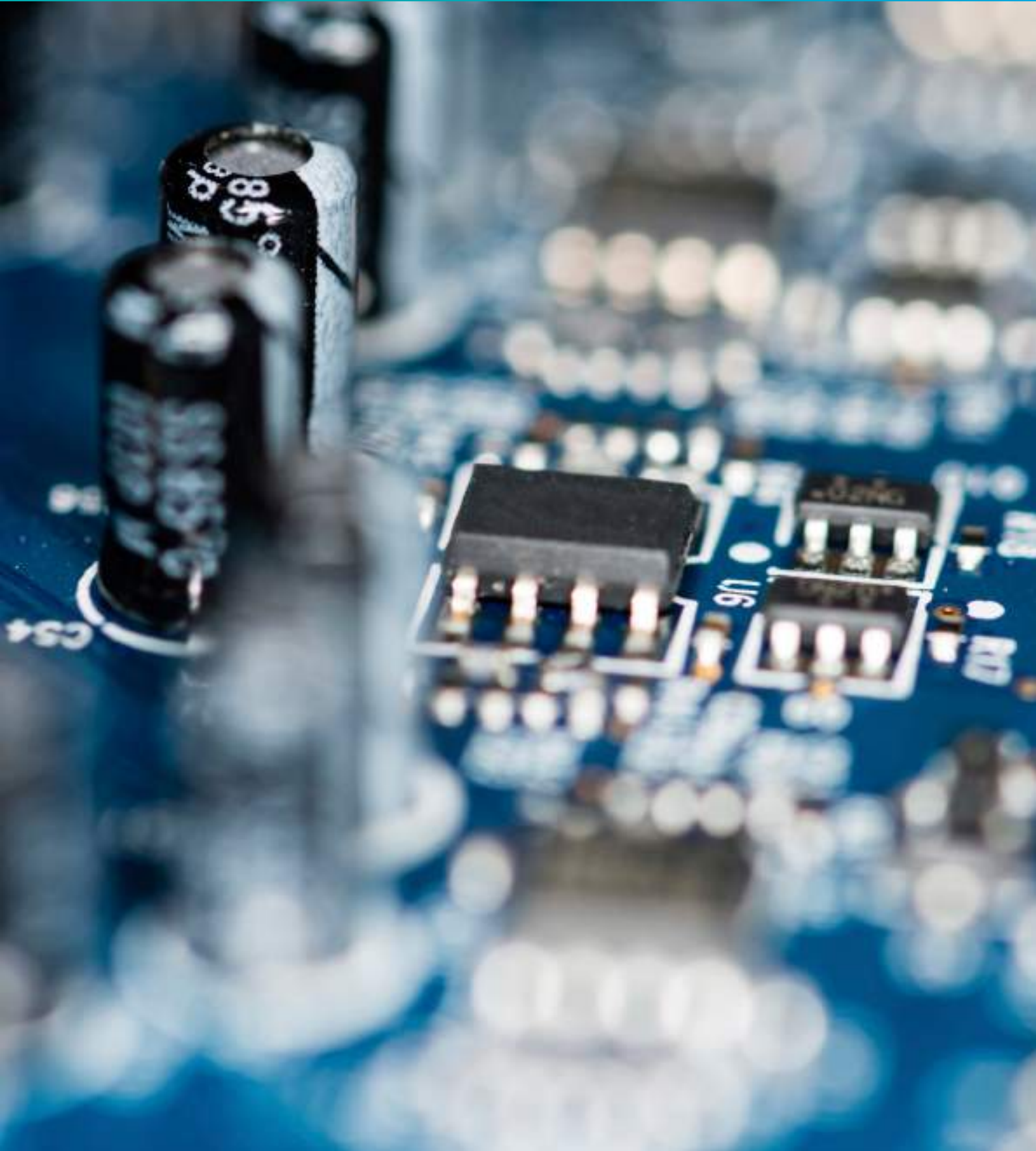
Ideation, the traditional area of product concept and design

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 PLM Software solutions smoothly connect major parts of the product and production life cycle. Powerful product life-cycle 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 PLM Software 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 life cycles.





Find out more

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