SIEMENS

# SIMATIC IT Preactor

## Advanced Scheduling

siemens.com/preactor

**A Solution for Every Company Size**
There is a family of Preactor Advanced Scheduling products that have different levels of functionality and price points so that the user can select the version that meets their specific needs and the budget available. Because all versions share common code upgrading from one version to another is easy and straight forward.

**Preactor 200 FCS**
Preactor 200 FCS is the starting point for users wishing to integrate their solution with other packages such as ERP and MES. The SQL database is fully customizable allowing its structure to be altered to fit the needs of the user.

When generating a schedule, Preactor 200 FCS allows more than one type of resource to be occupied, for example a machine, operator and tool, at the same time. The primary resource is treated as finite (only one batch can use it at one time) while the usages of other resources are displayed as plots. These plots can display the number of each resource required over the period of the schedule and the user can interact with them to overcome violated constraints, using the intuitive drag and drop interface.

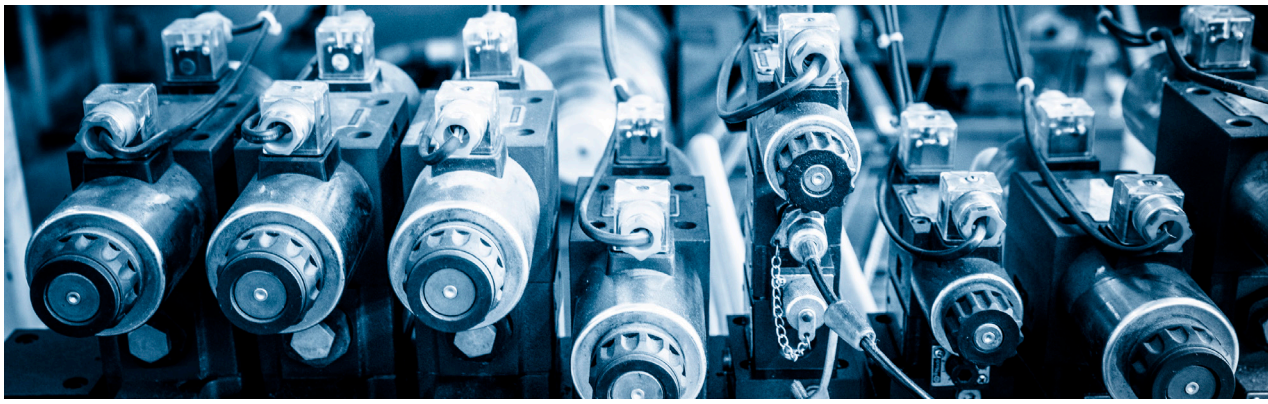
Additional scheduling features available in Preactor 200 FCS include the ability to define different run speeds for an operation from one resource to another, have sequence dependent changeover times based on operation attributes and allow overlapping (transfer batching) and splitting of operations. Reports are available to compare saved schedules.

**Preactor 300 FCS**
Preactor 300 FCS has a number of extra features over and above Preactor 200 FCS. These include multiple finite resource constraints for each operation, routing control depending on resources selected, modeling of multiple batches on the same resource and mid batch updates on completed quantities.

The most common use of these additional features is to model the impact of additional constraints on the start of an operation. For example, a task may require any one of a group of machines, an operator who has the correct skills and a specialized tool. The availability of each constraint must be taken into account in determining when work can begin.

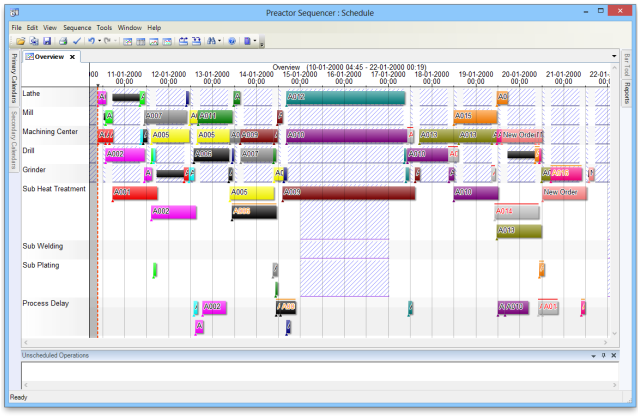
A Preactor SDK is available for use with all Preactor products. With Preactor FCS products this interface allows .NET Add-Ons to be written for data validation, integration, reporting, etc.

**Smarter decisions, better products**



**Preactor 400 APS**
Preactor 400 APS has a number of schedule optimization rules built-in to deal with such problems as minimizing changeover times, preferred sequencing, bottleneck scheduling and campaigning. Composite rules can be built using Preactor's Event Script Processor to apply several standard rules. However, if these rules do not meet the exact requirements, then unique rules can be added using the Preactor SDK, which from this level of the product range can be used for creating custom scheduling rules.

Material control via the concept of order pegging is also a feature of Preactor 400 APS. Typically the MRP process will create separate manufacturing orders for each component at each level of the BoM and may also consolidate parts for many different sales orders. Preactor 400 APS can use the BoM structure together with user definable pegging rules to link or peg orders together. The result can be viewed in the Material Explorer. This shows a graphical view of the dependencies as well as plots of materials over time. The user can see where shortages will occur and choose to keep them as a constraint or ignore them.




**Preactor 500 APS**
Preactor 500 APS takes material control a step further. It has an Advanced Materials Control feature. In this, materials can be produced or consumed at any operation step within an order. This means that both by-products and co-products can be modeled in the software and used as constraints. It also gives a more accurate representation of when materials are actually required during the processing of an order.

**Preactor Enterprise**
This product contains several Preactor 500 APS licenses (Master license and 5 run-time licenses) and is attractive to companies who have multiple license requirements either within a single plant or across multiple sites. Each license can run different models and different data sets. Models are created on the Master License and then compiled to run on a run-time license. Additional run-time licenses can be purchased as required when rolling out across other sites.

**Preactor Viewers**
The Preactor Viewer is a view only system designed to be linked to one or more Master Schedulers (MS) over a PC network. Data can be passed between the MS and the Viewer using a store and forward communication system called PCO. Viewers can be located in different departments around the facility. They can be used on a shop floor PC to provide the cell supervisor or machine operator with up to the minute work-to-lists generated by the MS, and to log updates for the MS. Viewers can be linked to bar-code readers to take progress information automatically. They can also be used in the sales office to track the progress of orders and carry out order enquiries against a read only copy of the published schedule. Management can also use them to compare actual times with scheduled completion times to assess the performance of the production process.

**Find out more**
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