

Preactor

Preactor International is the World Leader in Production Planning and Scheduling software used by a wide range of businesses. A key element of Preactor is that solutions can be installed straight out of the box but can also be customized and configured where necessary and without disturbing the core Preactor code, an important issue when it comes to future releases and technical support.

Preactor is also designed for integration with other software such as ERP, MES, Data collection, Forecasting, Demand Planning and OEE applications. **Preactor integrations are available for SYSPRO and riteTIME.**

Preactor represents a family of production scheduling solutions with different levels of functionality and pricing ranging from around \$100,000 to less than \$1,000. Preactor is not a single solution. It is a family of products that uses the same core code to provide solutions for small, medium and large companies.

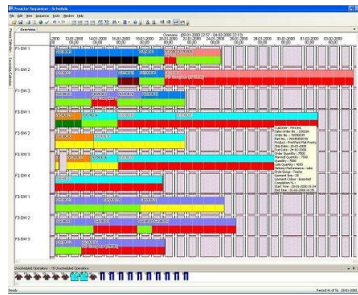
Scheduling Software

Detailed Scheduling software is an important tool for many companies where it can have a major impact on the productivity of a process.

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.

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. 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

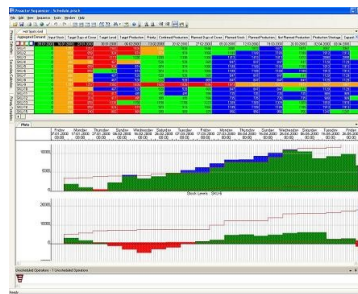
resources using scheduling rules and interact with the schedule using the Gantt charts and plots that are generated. A typical output would be a dispatch list for each resource.

An important feature of any scheduling tool is the ability to customize it to meet the unique needs of each application. Templates can help to get the user to 80% of the requirements but to get the last 20% it's important to be able to tailor the tool to fit.

Planning Software

Preactor takes a breakthrough approach to the planning process. Whereas most planning systems use a spreadsheet type grid to calculate the production load with some simple load leveling to push overloads from one week to the next, Preactor's uses its detailed scheduling roots to search for available capacity.

When used in a long term planning system Preactor is set up with a high level model of the process. The forecast demand is usually planned at SKU (finished product) level and the process capacity is typically represented as weekly or daily 'buckets of capacity', with the resources representing departments, cells, plants or entire factories. The inputs to the planning system are the forecast demand, initial stock and the target stock level required at the end of each day or week. The target stock levels can either be entered as a number of items, e.g. 10,000 cases, or in Days of Cover (DoC), e.g. 14 DoC, in which case Preactor analyses the forecast and real demand over the next DoC period to determine the required stock level.



The available capacity is also entered through a calendar system set up in either daily or weekly mode for each resource, where resources may be departments, cells, plants or entire factories. Typically the production load is backward scheduled, so Preactor will start by trying to load the demand onto the available resources into the week or day it is ideally required. Preactor also includes the concept of a

'Make Window'. The Make Window defines how early you are prepared to make the product because there may be shelf life issues to take into account. If capacity cannot be found within the Make Window, then alternative resources will be considered.

The planner can then use the system to change planning parameters and capacity in each period to see the impact on deliveries, stock levels, and capacity utilization over the planning horizon.

RTE would be happy to assist you in choosing the correct member of the family for your application. Begin by matching your requirements to the following statements:

If you need to...

- ▶ Have access to the Preactor BOM exploder to be able to use Preactor to obtain 'Capable to Promise' (CTP) delivery dates on products with a multiple level BOM from within Preactor.
- ▶ To be able to switch Preactor into 'Auto Order Promise Mode' to allow 'blind' CTP enquiries to be made on a live schedule by sending messages from other Preactor systems (for example a Preactor Viewer) or other applications.

Then P500 APS is the minimum version that you require.

If you do not need the above features but you need to:

- ▶ Use BOM data structures defined by an MRP or ERP system to peg or allocate materials from one or more producing orders to one or more consuming orders for example in Assemblies
- ▶ Use pegging rules to define which consuming and producing orders can be linked together
- ▶ Limit the start of consuming orders based on the completion time of producing orders
- ▶ Have access to material plots over the period of the schedule
- ▶ Provide a materials traceability report
- ▶ Identify and time material shortages
- ▶ Use complex 'optimization' dispatching production scheduling rules to, for example, introduce preferred color sequencing to minimize set up time, minimize work-in process etc
- ▶ Create your own unique production scheduling rules

Then P400 APS is the minimum version that you require.

If you do not need the above features but you need to:

- ▶ Use multiple constraints during the scheduling process e.g. machine and labor etc
- ▶ Allow multiple jobs on a resource at the same time
- ▶ Have tanks with defined capacities as a constraint
- ▶ Use Preactor at a Capacity Planning level (perhaps linked to a Forecasting system and plan months ahead)
- ▶ Cost by operation and by order based on material, resource and shift pattern
- ▶ Limit the resources that can be selected based on the previous resource selected
- ▶ Limit the start of an operation based on its finish time
- ▶ Limit the start of an operation based on the previous operation start/finish

Then P300is the minimum version that you require.

If you do not need the above features but you need to:

- ▶ Modify the data tables such as add, rename or remove fields
- ▶ Add new data tables
- ▶ Modify the menu structure
- ▶ Plot the usage of additional resources such as labor, tools etc
- ▶ Plot the capacity usage of resources and resource groups in hours
- ▶ Have alternative resources for an operation that has a different run speed
- ▶ Have set up or changeover times that are sequence dependent
- ▶ Allow transfer batching between operations (overlapping operations)
- ▶ To closely integrate and automate data transfer between Preactor and other software packages

Then P200is the minimum version that you require.

If you do not need the above features but you need to:

- ▶ Have unlimited data table sizes
- ▶ Have user definable operation and product attributes
- ▶ Have a Capable-to-promise (CTP) capability
- ▶ Be able to modify existing and create new Preactor reports
- ▶ Be able to define import and export routines using the Preactor Wizard
- ▶ Be able to publish schedules on a web site

Then P100is the minimum version that you require.