A new tool for Demand & Capacity Planning.

5 Important Facts About Preactor

1 | Accurate & Flexible

Preactor 400 GMPS provides detailed capacity planning capability to accurately model any manufacturing or service business. Its flexibility is unparalleled in the market.

2 | Innovative

Preactor 400 GMPS is an innovative tool launched by a company that has been developing its planning and scheduling software for more than 20 years.

3 | Empowering

Preactor 400 GMPS empowers the planner. It enables them to balance capacity and demand, levelling production whilst meeting demand peaks, such as those caused by promotions, or adjusting capacity to meet the fluctuations.

4 | Legacy Software

Preactor 400 GMPS is a point solution that focuses on capacity planning and material planning and enhance rather than replaces legacy software.

5 | Fast ROI

Preactor 400 GMPS offers a fast return on investment, typically a few months, sometimes weeks through better efficiency of production, lower inventories and increased customer service.

The MPS Problem

Master Production Scheduling (MPS) is a key part of the MRP process that you run within your ERP system. The input to your MPS will be your future customer demand so it will typically be made up of a mixture of actual sales orders and your forecast demand.

There are two main purposes behind the MPS process which both require your MRP to have some visibility of your future demand. The first is so that MRP can suggest the manufacturing orders that you will need to make and the second is to suggest the purchase orders you need to raise for your bought in items.

The fundamental MPS problem is that the MPS process does not take into account your manufacturing capacity. It simply works with the due dates from your future demand and this will often result in your MRP suggesting orders that simply cannot be processed in the relevant timescale.

The common solution to this problem is to pre-process your future demand through one or more spread sheets before it is loaded into the MPS. This process is often call Rough Cut Capacity Planning.
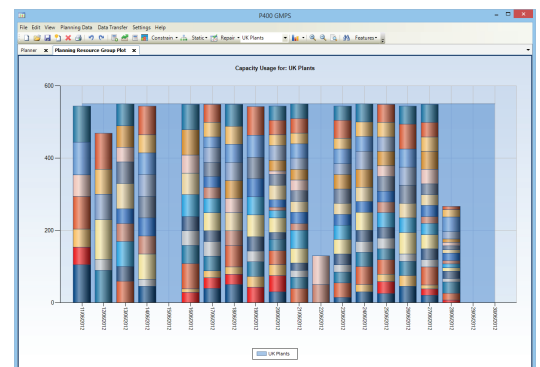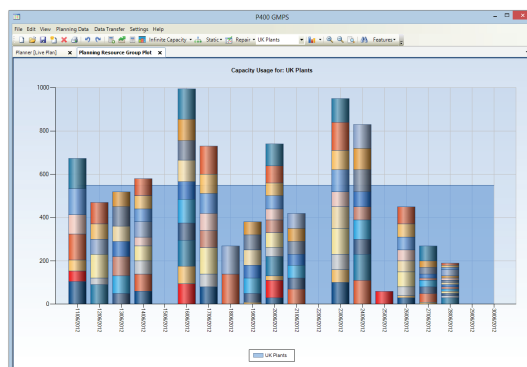
The spread sheets are used to calculate how much of and when each product should be made taking into account some of your key process parameters such as: rough cut capacity, desired stock level limits, shelf life, etc. The resulting 'smoothed' data is then used to create an accurate MPS in your ERP system.

As with any spread sheet based solution this can work quite well if your data volumes are low and you have little variation in your demand, but if you have large numbers of products that share the same production capacity and/or highly variable demand then the spread sheets become very difficult to manage.

Preactor 400 GMPS – Make to Stock

If you work in the food, drink, consumer goods or similar sectors it is quite likely that your production process is in 'make to stock' mode, in which case the primary driver in creating your MPS will typically be your forecast of future demand.

Unfortunately your forecast demand may vary greatly over time because of seasonality, promotions, weather, special events, etc. However these significant variations in your forecast demand can easily result in an unrealistic MPS, where you do not have enough production capacity to meet the peaks in your forecast.

Preactor 400 GMPS imports your current stocks levels plus actual and forecast demand. It then considers your rough cut capacity, pack forward figures, target days of stock cover, manufacturing preferences, minimum/maximum re-order quantities, re-order multiples, product shelf life, etc. to propose an accurate and achievable MPS.

Your production capacity can be specified as a quantity, duration or weight and using the Preactor calendar system you can vary your capacity over time. The capacity available then limits the production volume created in each period.
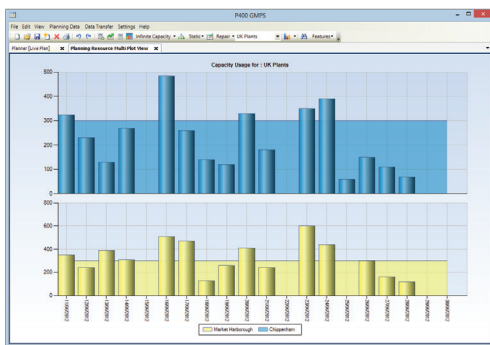
Once you have created your initial MPS you can display the data as both stock profile graphs and capacity usage graphs. If you wish to change the MPS you can simply click and drag a point on your stock or capacity graphs, and you can move the production of a particular item from one planning period to another. Any changes you make the values will be reflected in all the linked plot and grid windows.

Your planning BoM can also be exploded by Preactor 400 GMPS and then the production plan for your lower level items is calculated in the same way. Based on your BoM explosion and your production plan your proposed material purchase requirements can be exported to your ERP system, Excel, etc. for action.

Preactor 400 GMPS - Make to Order

If you work in a 'make to order' environment then the stock levels of your finished and/or intermediate items will not be part of your key process parameters, but you will still need the ability to evaluate the effects of future demand changes on your manufacturing process.

For example you may make complex assemblies for, say, the aerospace sector. Each of your finished items may have a deep BoM (Bill of Materials) and be made up of thousands of individual components. You manufacture many of those components in-house and they share production capacity so you have a complex relationship between your manufacturing capacity and your demand.

When a change in demand occurs whether that be in terms of quantity or delivery dates you need to be able to quickly assess if you are able to meet the new requirements

You can import your demand changes into Preactor 400 GMPS and create a new 'what if' plan. Your planning BoM will be exploded and Preactor will show you if you have any capacity issues. If there are issues you can work interactively with Preactor to create an acceptable MPS.

Preactor 400 GMPS - General Features

You can choose to plan in finite or infinite capacity mode and your planning time periods can be days, weeks, months or a combination of all three.

Parameters can be set against each of your item codes, which allow you to perform different calculations for each item. For example some of your products may in 'make to stock' mode whilst others, in the same MPS, are in 'make to order' mode.

If you also use a Preactor scheduling system your detailed production schedule information can be sent back to your planning system and this will override your planned volume with your scheduled volume. You can then re-calculate your MPS using your production schedule as the base for your new results.

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