



Macola ES

ADVANCED SCHEDULING

Work center load graph

Capacity Requirements Planning shows graphically the load that exists in a particular work center during a particular period of time based upon the existing schedule. The planner can quickly determine if capacity is adequate to accommodate the projected load. It is this report and the ability to modify scheduling information in isolation from the active orders that constitute CRP's "What-If Modeling" capabilities. The planner can modify the schedule and run the Work Center Load Graph over and over in an effort to even out the load on the work center.

Work center load report

The Work Center Load Report presents the same data as the Work Center Load Graph except that it shows detailed information about those orders that contribute to the load. For quicker access, the Work Center Load Inquiry application displays a summarized version of the same data.

Integration and prerequisites

CRP requires Macola ES's Shop Floor Control module in order to function. It integrates with Macola ES's Master Scheduling, Material Requirements Planning, and Shop Floor Control

More Information

For more information on Macola ES, please visit www.macola.com or call 1.800.468.0834, extension 550.

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Macola ES's Capacity Requirements Planning (CRP) package, also known as Advanced Scheduling, is a medium-range planning tool that provides visibility on the required capacity to execute the production plan. Using the powerful tools in this package allows you to optimize planning, control lead-times and better control the timing of load on the shop.

Important advantages of Capacity Requirements Planning are:

- Maximize facility utilization
- Create a realistic production plan
- Monitor current work-in-process
- Display scheduled load
- Perform "what-if" analysis
- Utilize forward/backward scheduling techniques
- Calculate capacity to match runtimes

Virtually every company has to deal with limited capacity. The Capacity Requirements Planning (CRP) module shows the planner how well the existing capacity of the shop meets the anticipated load. It enables the user to merge shop orders, firm planned orders and computer planned orders in from their packages of origin (Shop Floor Control, Master Scheduling, and/or Material Requirements Planning).

Powerful visual resource planner

Macola ES's CRP uses a visual interface that allows you to view and change the schedule for any shop order. It provides the capability to graphically display the load in each work center, highlighting the shop orders that have insufficient machine or labor hour capacity. Shop order detail, work center capacity and work center load graphs are easily accessible through menu options or push buttons.

Using the intuitive visual interface, shop orders scheduled for an operation on a given day can be moved to a different day or operation by dragging and dropping the shop order. The visual interface provides sufficient warnings when due dates are being impacted or operations are moved out of sequence. Any schedule changes are saved to "What-If" files for later analysis. Once the desired schedule changes are made, then a process update feature will update the Macola ES database with the transactions from the selected "What-If" file.

"What-if" analysis

CRP stores orders in a Simulated Load file so that the user may alter them without affecting the original orders. Along these same lines, CRP also provides the ability to add, modify and delete firm planned orders and to convert computer planned orders into firm planned orders. It also provides visual tools that enable the planner to adjust the schedule so that it better accommodates capacity.

Once orders have been merged into the Simulated Load file they can be modified to accomplish rescheduling. The user may change the scheduling method for an order as well as its start and due dates to investigate alternative solutions to the problem of inadequate capacity.

Changes to the start date of a non-dependent shop order can have repercussions if the order requires components that are produced by other shop orders. CRP is able to reschedule dependent shop orders based upon changes made to the start date of the highest-level (non-dependent) order. Such rescheduling helps to ensure that components will be ready when they are needed.

Once a schedule with an acceptable load profile has been established, the scheduling information can be posted back to the packages from which the orders were copied using the Post Schedule Updates application. However, posting is optional. CRP can be used successfully to merely model the data in an effort to improve the master schedule, but complex changes to the schedule really require the automatic updating that the posting application provides.

