Capacity Planning

React to planning while respecting constraints

Material planning tools are helpful but have one major weakness – they assume infinite production capacity. The result is the creation of production schedules, which then lead to problems in fulfilling commitments. For manufacturers to overcome this challenge, they must be able to apply constraints to their material plans.

GLOVIA G2 Capacity Planning is a Java-based, memory resident planning tool that enables manufacturers to determine the most effective way to execute production schedules and respect material plan constraints. The module applies capacity and tooling constraints to production plans generated by GLOVIA G2 Material Requirements Planning or GLOVIA G2 Master Production Scheduling systems.

GLOVIA G2 Capacity Planning benefits include:
- Increases production throughput
- Reduces changeover
- Identifies and eliminates production bottlenecks
- Minimizes costs associated with unplanned downtime, overtime and idle time
- Reduces production disruption from machine repair and/or maintenance
- Increases visibility into production plan and work orders

Respecting Capacity Constraints

Capacity Planning is a graphical application that displays a view of the shop load based on schedules generated by material planning applications. This enables users to see the overall picture and make adjustments to both capacity limits and the plan.

For example, a work order may be given a start and completion date based on material planning requirements. However, due to capacity constraints, the work order cannot be completed on time. Capacity Planning considers the projected time-horizon of capacity restraints and helps manufacturers determine the best way to overcome the problem, by either running more shifts, adding capacity or taking some other action.

Manufacturers can also define tooling as a critical resource and have Capacity Planning plan against both constraints to generate a more realistic schedule. The solution increases productivity and throughput by accounting for constraints, minimizing changeovers and sequencing similar jobs together.

Increasing Production Visibility

Capacity Planning increases manufacturer's visibility into the demand for their capacity from manufacturing orders versus actual, constrained plant capacity.

Capacity Planning identifies capacity overloads and bottlenecks before production is affected and enables manufacturers to either change the plan or adjust capacity.

Real-time Planning

While some planning solutions require batch data model updates to function, Capacity Planning allows true, real-time production planning. Capacity Planning's memory-resident data model is a seamless extension of GLOVIA G2's real-time database so planning is always based on accurate, up-to-the-minute information.

As events transpire throughout your company – orders entered, work orders completed, inventory received –they are reflected in both the GLOVIA G2 database and planning data model. The data synchronization ensures that you generate plans reflective of the true status of your factory, not an outdated snapshot.
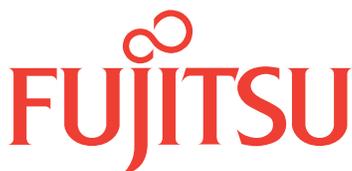
"What-if" Planning

Capacity Planning allows manufacturers to run and compare multiple "what-if" planning scenarios to find the most effective use of available capacity to meet commitments.

In addition to computer-planned orders, the module is able to test actual load, work orders and repetitive schedules. The solution's flexible release horizon allows manufacturers to examine future capacity requirements, whether it's for the next shift or next month.

Capacity Planning includes the following capabilities:

- Plans work orders, repetitive schedules and computer planned orders
- Creates forward and backward scheduling with limited and unlimited capacity options
- Generates multiple "what-if" plans
- Schedules on a detailed and highly granular level
- Allows "drag and drop" planning capabilities
- Shows detailed order and operational information with "mouse over" functionality
- Applies unlimited shift patterns to plant, department work-center or machine
- Considers "tooling" as a secondary constraint when planning
- Supports user-defined, changeable data element displays

FUJITSU

GLOVIA INTERNATIONAL

Worldwide Headquarters
Glovia International, Inc.
2250 East Imperial Highway, Ste. 200
El Segundo, CA 90245-3457 U.S.A.
Toll Free: (800) 223-3799
Phone: (310) 563-7000
Fax: (310) 563-7300
www.glovia.com