FACTORY PLANNING

A real time, multiple constraint-based planning system directly connected to the GLOVIA G2 database

As you face an increasing number of complex product configurations and a rising wave of customer demands and service requirements, how can you manage inventory, cut costs and improve on-time delivery to keep everyone satisfied?

GLOVIA G2 Factory Planning is a memory-resident planning tool that simultaneously considers the constraints of capacity, inventory, tooling and skills to generate an optimized production plan. Factory Planning supports advanced optimization algorithms that reduce set-up times and improve the flow of complex processes.

Factory Planning is a flexible solution designed to meet all planning needs. In a live environment, the application can re-optimize the production plan in response to machine break-downs or unexpected inventory shortages. In a simulation environment, Factory Planning allows you to run and compare multiple plans to find the best solution that balances inventory requirements with actual planned operations. The solution also allows you to conduct multiple "what if" scenarios, based on master production scheduling forecasts, to identify and deal with potential production bottlenecks and capacity constraints before they affect production.

Factory Planning delivers many bottom-line business benefits including:

- Increased machine and resource utilization
- Decreased overtime and idle time
- Eliminated bottlenecks
- Lessened repair/maintenance impact
- Reduced inventory levels
- Reduced cycle times
- Improved on-time delivery and customer service

Real-Time Planning

While nearly all other solutions require batch updates to and from their data models in order to function, Factory Planning has true, real-time production planning. Factory Planning's memory-resident data model is a seamless extension of GLOVIA G2's real-time database, so planning is always based on a single, up-to-theminute data set.

As events occur throughout your company – orders entered, work orders completed, inventory received – they are reflected in the GLOVIA G2 database and the planning data model. This synchronization ensures that the data is an actual reflection of your factory status and not an outdated snapshot.

Accurate Capable-to-Promise

In a business climate of fierce competition and ever-increasing customer expectations, accurate Capable-to-Promise commitments are a decisive competitive advantage.

Factory Planning enables you to provide your customers with instant, accurate order promise dates – even through the Internet. Simply enter an item number and quantity and Factory Planning determines the earliest possible delivery date by considering the availability of required inventory, production capacity, tooling and existing commitments.

Support for both Closed and Open Loop Environments

In manufacturing, shop floor events usually take place too quickly, so production planning becomes independent of execution systems. However, in order to realize cost savings, you must synchronize production planning and purchasing with execution. Factory Planning supports both closed and open loop environments simultaneously. The application can be tightly coupled with execution systems to provide real-time planning feedback to shop floor events. Revisions may be returned to other GLOVIA G2 material planning solutions so that supply orders may be adjusted to suit the constrained plan. This way, inventory levels can be kept to a minimum and cash flow improved.

Multi-Plant Dependencies

In a multi-plant environment, some factories are dependent on others for suppliers. GLOVIA G2 allows for the definition of cross-plant supplies, including lead times and delivery methods. These critical dependencies are visible through Factory Planning, which can instantly re-plan production at a dependent plant based on the changing output of a supplying plant.

Information Visibility

Factory Planning improves plant management and decision making by increasing information visibility. Plant managers can access critical information, such as available capacity for a given time period and loads on individual machines, to identify problem areas quickly and make informed decisions. Managers can run "what if" scenarios to determine the impact of any potential changes or events.

Creating a Wider, Seamless Solution for the User

- Call URL's that relate to other applications or sites (i.e. AutoCAD, Fed-ex, etc.)
- Visual indicator of CPO's due/overdue for conversion to Supply Orders
- Consistent scaling for alternative revisions and substitutes
- Enhanced selection capabilities
- Mouse-over hints and tips.

Execute the Plan

Planning does not end with the creation of an optimized production plan; there must be communication to the shop floor for execution. For this reason, Factory Planning has been designed to sit at the heart of the manufacturing execution systems.

Factory Planning enables the seamless execution of the production plan by having shop floor terminals interrogate the application for the correct and current work queue at each work center. The operators simply select the correct item from the list, which "starts" the operation. You can also call up data, drawings, work instructions and additional information from the remote terminal.

In combination with GLOVIA G2 Shop Floor Data Collection, details recorded at this terminal, such as completed work orders, are instantly fed to Factory Planning to ensure the plan is on track. Shop floor information is fed to other GLOVIA G2 modules for costing and other operational purposes.