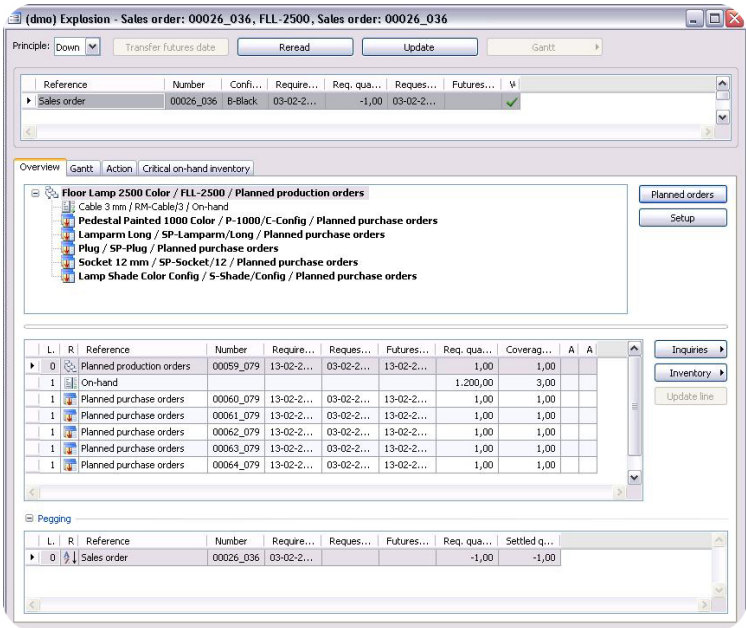# Master Planning

Microsoft Dynamics AX

BENEFITS:

- **Minimize lead times and maximize on-time deliveries to customers**

- **Respond quickly to changes in demand for materials and capacity**

- **Reduce inventory levels through improved production planning and forecast scheduling**

- **Finite capacity schedule at order taking**

Master Planning in Microsoft Dynamics™ AX exchanges information with other functionality inside the solution, including production, logistics, trade and CRM, helping streamline your manufacturing processes and supply chain. In addition, Master Planning in Microsoft Dynamics AX can be run for inter-company transactions, can help you reduce costs, satisfy your customer demands, and improve your overall business performance.

Optimize production flow

By utilizing the information possessed within your company and associated supply chain, Master Planning in Microsoft Dynamics AX can help you optimize production, material planning and scheduling. Finite material and capacity scheduling can be performed at the same time so that available capacity, inventory levels and purchase and transportation lead times are taken into consideration in your production planning. This helps you plan purchase, production and transfer orders more reliably, which can help you optimize your production flow and provide on-time delivery to your customers.

Use sales order explosion functionality to perform master scheduling on a single sales order which helps you plan faster and quickly promise your customers a reliable delivery date.

Microsoft Dynamics AX

Flexible planning results in increased efficiency

Use different master plans to run online simulations and what-if scenarios, so you can foresee the impact of different sales forecasts and planning strategies. You can run master scheduling in a fast, net change mode where only the latest changes are included in the calculations. This allows you to run materials and production planning as often as needed, so you can always have an up-to-date picture of the net requirements.

Outsource production with ease

Master Planning in Microsoft Dynamics AX helps you outsource production to sub-contractors whenever you need to. You can also model sub-contractor capacity levels in the system and quickly implement make or buy strategies throughout the planning process. This benefits both you and the customer; freeing your capacity and helping you keep delivery promises.

Quickly respond to changes

Action messages suggest changes to purchase and production orders based on changing requirements, helping you to optimize inventory levels and improve production flow. Additionally, future messages provide notification of the earliest possible delivery date, so that you can quickly take action on sales orders to maintain customer satisfaction. You can also increase the efficiency and accuracy of planning with time fences, which help ensure that procedures are carried out at the correct time according to your manufacturing policies.

Deliver on time

Avoid making delivery promises you cannot keep by running available-to-promise (ATP) calculations based on available inventory and current production orders, as well as capable-to-promise (CTP) calculations based on raw material lead-times and production capacity.

Minimize inventory levels to reduce costs

Cut down on unnecessary inventory carrying costs while still meeting your customers' delivery demands. Forecast scheduling in Master Planning in Microsoft Dynamics AX uses sales forecasts to project production and purchasing plans that are closely matched with demand. You may also optimize your safety stock levels based on either target service levels or on lead time coverage. Include seasonal deviation in product sales when calculating safety stock to further refine inventory levels.

Function seamlessly across warehouses

Further optimize your production planning by sourcing materials from across multiple warehouses. Master Planning in Microsoft Dynamics AX can operate with any number of warehouses and automatically generates transfer orders to fulfill inventory requirements. In addition, you can set up each warehouse with individual parameters to help ensure correct levels of safety stock and service at different locations.

FEATURES

Multiple forecast and master plans	- Support of multiple plans for forecast and master scheduling - Support of master scheduling for intercompany - Use multiple plans to simulate material and capacity requirements based on different conditions
Forecast & master schedule	- Based on sales and purchase forecasts - Gives you an overview of long-term purchase, production and resource requirements - Provides you with an overview of short-term purchase, production and resource requirements based on existing orders and/or forecast scheduling - The result is planned production, purchase, transfer, intercompany orders and net requirements.
Coverage groups	- A coverage group enables different time fence controls to be attached to different items/item groups - The coverage group contains all item planning parameters
Coverage code	Coverage codes are inventory replenishment rules. Options for different coverage codes include: Manual, Min/max, Period, and Requirement.
Scheduling methods	Master Planning in Microsoft Dynamics AX supports two different levels of scheduling: operations scheduling and job scheduling. Scheduling options include: - finite or infinite capacity machines, employees and tools, and materials scheduling - backwards or forwards scheduling - detailed scheduling by day, hours and minutes.
Planned orders	Planned purchase, production and transfer orders are the result of master planning. They can be modified, deleted or accepted, firmed and approved.
Future messages	Future messages flag orders that cannot be delivered on the requested date. The future message is the earliest possible delivery date based on materials and capacity requirements.
Action messages	Action messages are used to reduce inventory. They suggest changes to existing orders and planned orders to: - increase or decrease quantity - postpone or advance the order - or a combination of the above.
Net requirements	Gives you visibility over the entire master scheduling requirements. View by day, week or month
ATP/CTP	- Sales order explosion gives you the ability to break down a BOM item, and calculate an earliest possible delivery date based on route and incoming items - Available-to-promise (ATP): calculates delivery date based on available inventory and current production orders. - Capable-to-promise (CTP): calculates delivery date based on available materials and production capacity.

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