# ORACLE MANUFACTURING MATERIAL PLANNING FOR PROCESS MANUFACTURING

#### **KEY FEATURES**

# MATERIAL PLANNING FOR PROCESS INCLUDES:

- Material and rough cut capacity planning
- Multi-level graphical pegging
- Advanced sourcing rules (shared with Purchasing)
- Enhanced co-product planning
- Ability to perform on-line simulations
- Horizontal and Vertical plans with dynamic bucketing and drill downs
- Configurable exception queries and priorities with comprehensive drilldowns to exception details
- Planner Workbench with personnel queries

Oracle® Process Manufacturing Material Planning (Unconstrained ASCP) provides enterprise-wide coordination to balance material supply with demand and to ensure timely delivery of finished products. Oracle Process Manufacturing (OPM) Material Planning is part of an integrated suite of e-business applications for the enterprise, which is designed to transform your business to an ebusiness.

## Ensure Successful Execution Across your Enterprise

To balance inventory supply and demand, OPM Material Planning examines pending inventory transactions, applies demand to current inventory balances, suggests specific actions based on user-defined sourcing rules, and projects inventory availability dates based on Unconstrained ASCP recommendations. OPM Material Planning is more than typical MRP system planning material. It will also provide the user a Rough Cut Capacity view of resource loading. For CRP (Capacity Resource Planning) OPM uses Oracle ASCP in a constrained and optimized plan.

# Leverage Current Enterprise-Wide Information

Before initiating the steps to ensure that inventory meets your current demand, OPM Material Planning (Unconstrained ASCP) automatically gathers current pending customer demand information from Order Management, forecasts from Discrete Forcast, firm planned orders (FPOs) and scheduled production from OPM Production Execution, and raw material supply orders from Oracle Purchasing. It then reviews formulas/recipes in OPM New Product Development to determine the ingredients needed to fulfill demand, and checks inventory through Oracle Inventory to assess availability of the necessary raw materials and lot expirations. After evaluating inventory, it supplies your buyers and planners with a list of the items and quantities needed for production, and a suggested timetable.

Through seamless integration of the Oracle Process Manufacturing environment, OPM Material Planning (Unconstrained ASCP) lets your planners and buyers make timely, informed planning decisions based on consistent, real-time information from across your enterprise.

## **Optimize Inventory Asset Management**

To deliver product on schedule, process manufacturers need a global view of all factors that may affect their ability to deliver what they promise. OPM Material Planning provides process manufacturers with the requisite visibility and control to



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effectively manage inventory assets and fulfill production commitments.

OPM Material Planning enables you to recommend, coordinate, and schedule the necessary actions to ensure sufficient on-hand inventory and timely product delivery. It helps you manage the availability of raw materials, intermediates, co-products, by-products, packaging materials, and finished products.

To enhance your planning effectiveness, OPM Material Planning examines pending inventory transactions, applies demand to current inventory balances, suggests appropriate actions based on user-defined rules, and projects inventory availability dates. Its rule-based functionality simplifies your planning decisions and increases your overall operational efficiency.

OPM Material Planning synthesizes information from all Oracle Process Manufacturing modules across your enterprise, including Oracle Inventory, Order Management, Purchasing, Production Management, and Formula/Recipe Management. Its ability to provide you with a concise view of your enterprise-wide business activities makes it an essential tool for your material requirements planning.

## **Optimize Material Planning for the Way You Operate Your Business**

No two businesses operate the same way. Depending on the business environment, it may be more economical to make to order rather than make to stock; you may consolidate customer orders at regional distribution warehouses, rather than shipping direct from plant locations to minimize transportation costs; or it may be more economical to satisfy demand of certain items differently in various parts of the world. These are just a few of the choices OPM Material Planning provides when you define the rules by which it will plan.

# **Faster and Improved Decision Making**

OPM Material Planning provides a productivity enhancing user interface that enables planners to easily perform root-cause analysis on planning problems. Planners can further improve their decision making cycle time by using workflow to automate the resolution of exceptions. In addition, planners can instantly compare plan 'calculated' performance against company 'target' values to evaluate their decisions.

The Planner Workbench helps planners to quickly get to information they need. For example, planners can organize information based on how work has been assigned to them. A buyer planner will start with the suppliers they need to work with, and move to all of the issues that need to be resolved with a supplier, whereas a shop planner might need to start with all the issues for the family of products he has been assigned to manage. In addition, the use of personal queries, configurable folders, and exception messages enable planners to quickly analyze and resolve supply chain problems.

## Robust exception management and root-cause analysis

OPM Material Planning enables a management by exception paradigm. Exceptions can be displayed at any level of aggregation. You can quickly view all the



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exceptions for an entire plan, or decide to just focus on the exceptions for all critical items assigned to you, or directly deal with the issues for one specific item. Using personal queries you can set your tolerances to define your own version of what constitutes an important exception. You can also navigate with a right mouse click from an exception to related exceptions. You can, for example, directly relate a problem like a shortage to the orders that may be impacted by that shortage. Similarly, comprehensive late demand diagnosis helps you analyze the root-cause of late demand.

# Horizontal and vertical plan

Perhaps the most important and most frequently used part of the user interface for a planner is the Horizontal Plan where planners can see time phased bucketed output of the plan and all of the detailed supply and demand information. The horizontal plan has been implemented as a pivot table, which enables you to change the bucketing of the data being displayed and drill from, for example, months to weeks to days. You can control via drag and drop or preferences the row height, column width, and what rows are displayed in the horizontal plan. This is true for material, capacity, and supplier requirements. Double clicking on any summary cell in the horizontal will take you to the details.

Graphics, which you can choose whether or not to display, allow you to graphically display any information in the horizontal plan. For example, you may want to display a load versus capacity graph of a resource, or a graph of the projected inventory balance of an item over time. Preferences, which are saved for individual users, control how the workbench displays by default, allowing planners to tailor their experience to improve their personal productivity. All planning data, including horizontal plan data, can also be exported for manipulation or reporting in spreadsheets.

# Graphical supply chain pegging

The Supply-Demand window also provides graphical full pegging to enable you to quickly see all the way from end demand to the lowest level component or resource requirements. You can easily peg up and peg down from demand to supply and vice versa, as well as jump back and forth between previous states of the pegging information, or reduce the pegging information to view critical path information only. Additional details for each pegging node can be viewed with a single mouse click.



### **KEY BENEFITS**

ORACLE MATERIAL PLANNING FOR PROCESS MANUFACTURING KEY BENEFITS

- Planner Workbench enables planners to view all planning information in a single place, collaborate during the decision making process, and quickly analyze the root-cause for planning recommendations and exceptions
- Graphical full pegging to enable you to quickly see all the way from end demand to the lowest level component or resource requirements
- Process effectivity is displayed through the Planners Workbench
- Advanced co-product planning will simultaneously plan co-product items to utilize supplies created on the same day

# RELATED PRODUCTS

Oracle Material Planning for Process Manufacturing is integrated with the following products

- Oracle Advanced Planning and Scheduling
- Oracle Approvals Management
- Oracle E-Records
- Oracle Inventory
- Oracle MES for Process Manufacturing
- Oracle Process
  Manufacturing Process
  Execution
- Oracle Product Lifecycle
  Management
- Oracle Workflow

#### RELATED SERVICES

The following services are available from Oracle Support Services:

- Oracle E-Business Suite Accelerators
- Oracle Application Solution Centers
- Oracle University
- · Oracle Consulting

	Plan P-BASE-CON	OPM Test Constrained BaseLine for DBI	Type Manufacturing F									
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Ora	Item		Order Type	Sugg Due Date	Qty/Rate	Order Number	Action
TST:PR1	9210		On Hand	22-MAY-2005 10:52:45	13,919.4		None
IST:PR1	9210		On Hand	22-MAY-2005 10:52:45	123,624.0		None
IST:PR1	9210		On Hand	22-MAY-2005 10:52:45	125,623.0		None
IST:PR1	9210		On Hand	22-MAY-2005 10:52:45	28,188.2		None
IST:PR1	9210		Planned order	31-MAY-2005 22:56:00	30,497.7	10883081	Releas
IST:PR1	9210		Planned order	01-JUN-2005 13:28:00	50,450.4	10883082	Releas
TST:PR1	9210		Planned order	02-JUN-2005 13:29:00	41,787.6	10883083	Releas
TST:PR1	9210		Planned order	07-JUN-2005 23:12:00	36,501.6	10883084	Releas

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우 Pegging for 9210/TST:PR1\_Qty 30497.725357 on 31-MAY-2005 22:66:00 (Planned order) 승규 9210/TST:PR1\_Qty 31852.40036 Pegged Qty 30497.725357 on 31-MAY-2005 22:56:00 (Planned order demand)

\*\*\* 2010/S1:PR1 Qty 31852.40036 Pegged Qty 30497.25357 on 31-MAY-2005 22:55:00 (Planned order demand) - 2\* 9601/TST:PR1 Qty 304.977254 Pegged Qty 304.977254 on 31-MAY-2005 14:58:00 (Planned order co-product/by-product)

수값 9010/TST:PR1 Qty 12500 Pegged Qty 3165.240036 on 03-JUN-2005 23:59:00 (Forecast DBI-BASE/ERP-DBI)

#### Figure 1: Multi-Level Graphical Pegging

## Easily drill down to details

The Planner Workbench provides many detailed windows to display detailed information such as the items, resources, and supply demand windows. Extensive right mouse menus enable you to navigate to relevant details quickly.

#### **Reduce planner workload through automation**

OPM Material Planning makes extensive use of workflow to enable process automation and automated corrective action. This enables you to significantly reduce the non-value added costs of manual activity. For example, workflow notifications will be sent when the planning engine detects late orders, over-utilized or under-utilized resources, and order reschedules.

## Simulation

Multiple planners can also perform online simulations. Warnings are displayed to other planners if one planner is running the on-line planner for simulation purposes. In addition, controls exist that enable you to decide whether the release process should affect all planners, or if each planner should be responsible to release only their own planned orders.

# **Oracle E-Business Suite—The Complete Solution**

Oracle E-Business Suite enables companies to efficiently manage customer processes, manufacture products, ship orders, collect payments, and more—all from applications that are built on unified information architecture. This information architecture provides a single definition of your customers, suppliers, employees, and products—all important aspects of your business. Whether you implement one module or the entire Suite, Oracle E-Business Suite enables you to share unified information across the enterprise so you can make smarter decisions with better information.

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