

# Sage MAS 500 ERP



## Material Requirements Planning

### Manage Material Requirements Planning (MRP) From a Single Planning Screen

It is impossible to understand material and distribution requirements across a large company without advanced planning tools. Sage MAS 500 ERP uses historical data and advanced replenishment formulas to help you understand current and future material and distribution requirements and how they will affect your business.

Unlike legacy MRP systems, Sage MAS 500 provides single-screen planning. This feature provides up-to-date item statistics, including on-hand quantities, current purchase orders, work orders, transfer orders, and other elements that affect planning decisions. MRP calculations quickly generate suggested work orders for manufactured items, purchase orders for raw materials and subcontracted services, and transfer orders to move material between warehouse locations.

MRP also integrates with the Sage MAS 500 Project Accounting system. This integration provides a critical management system for companies with material-intensive projects. It is also a key integration point for both manufacturers that make-to-install and engineering firms that design parts that are later manufactured into prototypes and finished goods.

The planning activity provides insightful information to help you make purchasing and production scheduling decisions based on industry-standard practices and flexible, real-life circumstances. Planning personnel can maintain plans by version. This allows them the flexibility they need to manage material and distribution plans by product line, by manufacturing facility, and other user-defined criteria. In fact, the Sage MAS 500 interactive planning methodology is one of the easiest material management systems available today.

Material Requirements Planning Inquiry

Item Summary				Period Summary		Transaction Detail		Planned Orders		Messages	
Sort Options: <input checked="" type="radio"/> Item/Whse/Date <input type="radio"/> Whse/Item/Date <input type="radio"/> Date/Item/Whse <input type="radio"/> Date/Whse/Item <input type="radio"/> Wh/PPL/Br/Vnd <input type="radio"/> Custom				Set Flags Selection Criteria Start Date: 06/05/2008 End Date: 01/26/2010 Whse:		Order Type: <input checked="" type="radio"/> All <input type="radio"/> WD's <input type="radio"/> PO's <input type="radio"/> TO's		Planning Options: Starting Low Level: 0 Generate Lower Levels: <input checked="" type="checkbox"/> Plan Fence Date: 12/31/2008		Generate: <input checked="" type="checkbox"/> Planned Orders <input type="checkbox"/> Actual Orders <input type="checkbox"/> Consolidate PO's <input type="checkbox"/> Remove Unfirm'd <input type="button" value="Orders"/> <input type="button" value="Schedule..."/>	
Act	Frm	Exp	Bmp	Item	Whse	Req Date	Ord Date	Tran QTY	Type		
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	RM914	ATL	12/31/2008	12/26/2008	1513.0000	Purchase	1€	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	WA101	ATL	12/31/2008	12/17/2008	810.0000	Work	9€	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	WA101	ATL	12/31/2008	12/11/2008	1132.0000	Work	9€	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	WA101	ATL	12/31/2008	12/10/2008	1283.0000	Work	9€	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	WA101	ATL	12/31/2008	12/29/2008	127.0000	Work	9€	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	WA101	ATL	12/31/2008	12/11/2008	1123.0000	Work	9€	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	WA101	ATL	01/01/2009	12/24/2008	455.0000	Work	9€	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	WA101	CHI	12/31/2008	12/28/2008	160.0000	Transfer	1€	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	WA101	CHI	12/31/2008	12/28/2008	338.0000	Transfer	1€	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	WA101	CHI	12/31/2008	12/28/2008	242.0000	Transfer	1€	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	WA101	CHI	12/31/2008	12/28/2008	383.0000	Transfer	1€	

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### BENEFITS

- Produce accurate material and distribution plans using advanced replenishment formulas and demand forecasting principles.
- Easily customize plans prior to MRP generation using flexible sorting and selection criteria.
- Multiple MRP versions enable management of separate MRP plans by product line, by manufacturing facility, by warehouse, or other user-defined criteria, with what-if simulation.
- Easy to use single planning screen creates suggested purchase orders, work orders, and transfer orders.
- Manage transfer orders from feeder warehouses to subsidiary warehouses and run Capable To Promise inquiries during Sales Order Entry.
- Integration with Project Accounting provides buyers and project managers with effective management of project materials.
- Integration with Advanced Planning and Scheduling provides the capability to synchronize manufacturing material needs to production resource availability, creating resource constrained material plans and lower material inventories.

### SAGE MAS 500 SOLUTIONS

- Financials and Project Accounting
- Distribution and Manufacturing
- CRM and E-business
- Human Resources and Payroll
- Customization and Integration
- Business Intelligence



“Sage MAS 500 and MRP let us get our act together. We finally have inventory numbers we can depend on, far more on-time shipments, and better quality throughout the company.”

David Palmerston  
VP of Technology  
Helical Products Company

## Multiple MRP Versions

Maintain MRP by version for multiple warehouses and what-if simulations.

- Use MRP versions to generate specific material or distribution plans for each manufacturing warehouse or distribution center and another for the centralized or global plan.
- Multiple versions provide what-if simulations of the material and distribution plan.

## MRP Sorting and Selection

Planners can easily customize their plans prior to MRP generation.

- Planners may sort material and distribution plans by item and warehouse in ascending or descending order.
- MRP may be filtered using a variety of selection criteria, including buyer codes, item IDs, item classes, item types, purchase product lines, and warehouses. Each of these selection criteria may be set for one or more classifications.
- A user-defined demand time fence can be set to freeze a period of time to prevent planned orders from interfering with current production and distribution schedules.

## Planned Inventory Transfers and Capable to Promise

Manage transfer orders from feeder warehouses to subsidiary warehouses and run CTP inquiries during Sales Order Entry.

- Manage planned and actual inventory transfers from centralized warehouses to subsidiary warehouses.
- Manage the supply chain by establishing relationships between manufacturing facilities, main warehouses, and subsidiary warehouses.
- The CTP function is available during Sales Order Entry for MRP customers. The CTP feature calculates either the quantity of items that will be available by a specified date or the date that a specified quantity of items will be available.

## MRP Calculations

Sage MAS 500 uses advanced replenishment formulas and demand forecasting principles to produce extremely accurate material and distribution plans.

- MRP determines total lead-time and production times for all finished goods, subassemblies, and raw materials.
- Demand calculations are based on demand by business day as opposed to demand by month, and handle seasonality and other industry-specific requirements.
- MRP considers safety stock, minimum/maximum quantities and transaction data from sales orders, work orders, purchase orders, projects, and inventory management.
- MRP blows through phantom requirements designated on a bill of material.
- Demand smoothing helps you forecast projected demand over various inventory periods while using the data to drive MRP and

production in a set of shop floor or production facility working periods. The six smoothing methods include Daily, Weekly, Monthly, Quarterly, Annually, and Planning.

- MRP assumes infinite production capacity (24-hours-a-day, 7-days-a-week). With Advanced Planning & Scheduling installed, MRP considers actual work center schedules (not including current production load) by removing unavailable time for days off, scheduled downtime, and holidays.

## Critical Planning Information

The planning screen provides one-click access to item and period information.

- The planning screen displays summary and detailed item information, including on-hand balance, adjusted on-hand balance (including safety stock), warehouse location, and more.
- MRP exception messages may be sorted by severity and by message type.

## Single-Screen Planning

Generate actual orders and firmed orders from a single point of entry.

- MRP creates suggested purchase orders, work orders, and transfer orders.
- The planner can firm planned orders or create actual orders from system-generated planned orders.
- Late orders are flagged for quick identification.
- Planned orders may be included in the production schedule.
- Purchase orders for the same vendor in the same time period and warehouse can be consolidated before converting planned orders to actual orders.

## Multiple Access Points

Launch MRP from various points throughout the system.

- MRP may be accessed from the Work Order or Sales Order system to view material requirements specific to a selected work order or sales order.
- The Purchase Order system includes a link to MRP to view material and distribution requirements for items on the current purchase order.

## Project Materials Management

MRP integrates with Project Accounting to provide buyers and project managers with an integrated solution.

- Project managers can use manufactured items on project estimates.
- MRP picks up the material demand from the Project Accounting system so it can plan for finished goods, component items, and raw material requirements across multiple projects.
- MRP and Project Accounting help maintain adequate inventory levels so projects can be completed on time.

## Business Insights

Analyze and monitor Inventory Replenishment and MRP data, transactions demand forecasts, and plans.

- Organize, analyze, and graph inventory and material demand information, such as on-hand quantities, inventory history, sales history, purchase history, inventory transaction history, material plans, and more.
- Use the Alerts module to monitor Sage MAS 500 when items are at or below their minimum stocking levels by warehouse, when items are out of stock by warehouse, and when back-ordered items are received.