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**Headline News**

The editors of *Start-it Magazine* chose Sage Software for their 2007 START-IT 125, a list of the most influential manufacturing technology providers as determined by the magazine and its editorial advisors. The list provides a snapshot of the industrial market and the companies with the greatest impact on its direction, including Sage Software.



**Gain Manufacturing Intelligence  
With The Sage PFW MRP Module**

Every manufacturer is different; even those in the same industry will vary their processes and procedures. Process manufacturers are unique among manufacturers, relying on batches and formulas instead of assembling from a bill of material. What all manufacturers have in common, however, is the goal of minimizing costs. One recognized way to minimize costs is to ensure you have adequate raw materials on hand when you need them, while avoiding costly and potentially wasteful overstocking.

The Sage PFW MRP (Material Requirements Planning) module can help you optimize your purchasing process, ensuring you have what you need, when you need it—while helping to minimize overall inventory levels. Let's learn more about MRP in general, and specifically about the Sage PFW MRP module and how it may be of use in your manufacturing operation.

**What Is MRP Software?**

MRP is a software-based production planning and inventory control system used to manage manufacturing processes. While it's possible to conduct MRP manually, most manufacturers ultimately look for software tools to assist them.

Most MRP software is intended to meet three main objectives:

- ▶ Ensure materials and products are available for production and delivery to customers.
- ▶ Maintain the lowest possible level of inventory.
- ▶ Plan manufacturing activities, delivery schedules, and purchasing activities.



Sage PFW MRP helps you ensure you have adequate material quantities on hand to avoid costly production delays.

MRP attempts to answer the *what, how much, and when* questions every manufacturer faces.

**Is MRP Right For You?**

To optimize productivity, efficiency, and customer service, you need to control the types and quantities of materials purchased and plan which products are to be produced and in what quantities. This will ensure you can meet current and future customer demand. What's more, you need to accomplish

this at the lowest possible cost. A bad decision in any of these areas can be costly.

Without sufficient quantities of an item used in your manufacturing process you may be unable to meet contracts to supply products by the agreed date. At minimum this costs you the goodwill of your customers. Worse, it can cost you the contract and the investment you've already made in it.

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# The Sage PFW MRP Module CONTINUED

Some items you purchase have a minimum quantity that must be met, therefore, purchasing excess is sometimes necessary. But if you generally tend to overstock items, you're potentially wasting money. The excess quantity ties up your company's cash, and should formulas change, the overstock of items may never even be used. Many process manufacturers deal with perishable items with a short shelf-life. Buying more than you need is potentially wasteful and may impact the quality of your final product.

Proper scheduling of your production is also critical; fulfill too soon and you must store the finished goods, fulfill too late and you risk missing a customer deadline.

## The Sage PFW MRP Module

The Sage PFW MRP module helps you answer the *what, how much, and when* questions by providing a time-phased analysis of sales orders, production orders, current inventory, and forecasts and then making recommendations on what and when to buy and build. If you choose, the system will even automatically generate the production and purchase orders for you. A simplified typical workflow in the MRP module consists of the following steps:

1. Build your forecasts
2. Run the Material Requirements Plan
3. Generate the MRP report(s)
4. Fine tune planned recommendations
5. Allow MRP to automatically generate production and purchase orders

### Building Accurate Forecasts

Demand forecasting is a mixture of art and science, and the MRP module helps combine the two into forecasts you can have confidence in. Using the MRP module, you may manually enter your forecasts, or base them on historical sales and/or manufacturing information. You may enter multiple forecasts for each item. For example, you might have each salesperson enter forecasts for their territories independently. The MRP module will automatically summarize all forecasts for a given planning period.

You can copy an existing forecast to a new forecast to save data entry time, and then edit

individual elements as desired. You are free to modify an existing forecast at any time.

You don't have to create a forecast for MRP to function; the forecast can be based entirely on orders you've already logged. The actual MRP generation process can be instructed to use only your forecasts, only actual demand, or a combination of the two.

### Planning And Creating Orders

Think of the Material Requirements Plan as the brains of the MRP application. It is a util-



The screenshot shows a software window titled "MRP Detail Report". The window contains a table with multiple columns, including "Item", "Quantity", and "Date". The table is organized into sections, likely representing different items or categories. The data is presented in a structured, tabular format typical of business reporting software.

The MRP Detail report helps you make better informed purchasing and manufacturing decisions.

ity that you will run on any day you wish to produce MRP reports. As the utility runs, it identifies all open inventory requirements and receipts, all dependent demand derived from those inventory requirements, and all scheduled and planned order exceptions. The Material Requirements Plan calculates and reports the purchase and production orders that should be produced to meet your forecasted and actual demand—plus it ensures your replenishment levels are optimized.

MRP schedules purchase orders and/or production orders for just-in-time receipt, ensuring that you will always have sufficient inventory to meet production demands, but not more than necessary at any given time.

You decide if and when to authorize the purchase or production of items based on MRP planned orders. The Release Planned Orders utility converts the MRP Planned Orders for a specified range of items to purchase or production orders. A recap listing informs you of the

production schedule items and purchase orders that were created. If you wish, you can perform a trial run of the utility to preview what it will do, and then go back and revise the selection parameters until you arrive at your desired result.

### Reporting Power

The MRP module provides two pre-defined reports, the MRP Report and the MRP Detail Report. The MRP Report shows time-phased inventory planning information. The time periods shown on the report may be based on a planning calendar or on a specified date followed by the next eight months. The report includes: beginning inventory quantities, gross requirements, scheduled receipts, net requirements, planned order receipts, planned order releases, and exception messages. This report is useful to planners because it provides a standard view of one or more item's planning horizon information.

The MRP Detail report can be used as an action report by electing to include only items with exceptions such as items requiring action by a purchasing or production planner. The report includes much of the same data as the MRP Report, and adds useful data such as: Projected Available Balance, Pegging, and other supporting details. This report helps you identify the source of MRP exception messages and make better informed purchasing and manufacturing decisions.

### Integration With Other Modules

The MRP module leverages information from the Inventory Pro, Formulas, and Order Entry Pro modules for its calculations. When integrated with the Purchasing Pro and Production modules, you can have the software generate purchase orders and production entries automatically.

We've provided only an overview of a potentially complex piece of your manufacturing operation by highlighting a powerful tool that can help streamline this component. For a limited time Sage Software is offering special pricing for the MRP module—just mention this article and save 25%. Please call us for full details and a demonstration of the Sage PFW MRP module. ★