Material Requirements Planning

Module Guide: Material Requirements Planning

Module Location

Inventory > Material Requirements Planning

Module Objective

The **Material Requirements Planning** module is the center of the MRP process. Its purpose is to automatically calculate the total requirement of raw materials and components needed to meet the targets from the **Production Plan** or the **Sales Forecast**. The system will "explode" the BOM (Bill of Materials Explosion) of all finished goods that will be made to generate a list of gross material requirements.

1. Main View (Plan List)

The main page of this module displays a list of all MRP calculation processes that have been previously run.

View Explanation

- **View**: This page is a history of all MRP processes. You can see the process **Code**, the **Data Source** (reference document), and its planning period.

- **Action Buttons**:

- **[New]**: The primary button to start a new MRP calculation process.

2. Steps to Run the MRP Process

Step 1: Create a New Calculation

From the Main View, click the **[New]** button to open the **Add Plan** form.

Step 2: Select the Requirement Source (Important!)

On the form that appears, define your calculation basis in the **Standard Quantity** section:

- **Sales Forecast**: If you want to calculate material needs to meet sales targets.
- **Production Plan**: If you want to calculate material needs to meet an existing production schedule.

Step 3: Select the Source Document

After selecting the source type, select the specific **Document Number** of the Sales Forecast or Production Plan to be used as a reference.

Step 4: Run the Calculation

Click the **[Next]** button. The system will start the MRP calculation process. This process will take all the finished goods from the source document, look at their recipes (Bill of Materials), and accumulate the total requirement for each raw material.

3. Process Results (Conceptual)

- After the process is complete, the system will generate a list of **net requirements**. This is the quantity of raw materials that actually needs to be purchased, after considering the stock already in the warehouse and goods that are currently on order.

- This requirements list then becomes the basis for the **Purchasing team** to create a **Purchase Requisition** or **Purchase Order (PO)**.

Tips & Important Notes

- This module is the **heart of production and purchasing planning** in a manufacturing company.

- The accuracy of the MRP calculation is highly dependent on two things: the accuracy of the **Bill of Materials (BOM)** data for each product and the accuracy of the **current inventory stock** data.

- This is a crucial module for the **PPIC (Production Planning and Inventory Control)** team.

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