PLANETONE ERP

Enterprise Resource Planning System

FEATURES

⇒ *Fully Integrated Business System: Manufacturing, Distribution and Financial Accounting*

⇒ *Better Customer Service*

⇒ *Reduced Inventory*

⇒ *Increased Staff Productivity*

⇒ *Quality Systems*

⇒ *Highly Integrated System Modules*

⇒ *Full MRP II System*

⇒ *Meets Local Accounting and Tax Requirements*

⇒ *Fully customizable reports system to fit your business*

ASPECTS OF ERP SYSTEM

With its precise and up-to-date inventory management application and ordering system, BRID MRP can provide you with the ideal foundation for accurate material requirements planning.

The main function of MRP is to monitor stocks and automatically generate order proposals for the purchasing department. This is achieved by implementing various requirements planning methods.

The planning process is usually done at the end of the day using the net change planning procedure. This procedure only plans those materials whose stock or requirements situation have gone through a change applicable to the planning process and which have been flagged with the appropriate indicator in the planning line. A relatively short process time enables the MRP manager to repeat the net change planning procedure in short intermissions.

MATERIAL REQUIREMENTS PLANNING

Defining a planning horizon can shorten the process time even further. This means that the MRP manager always has current planning results at his/her disposal. Information concerning important parts and exceptional situations are automatically generated by the system, which means that the MRP manager is also relieved of routine monitoring procedures. To improve performance even more, you can use parallel processing functions.

During a planning process, the system performs the following steps:

1. Calculates net requirements
2. Calculates lot size
3. Scheduling
4. Creates purchase order proposals
5. Creates exception messages

The MRP manager using interactive planning can adapt the MRP list automatically created by the system. Individual materials can be planned again online immediately.

Since MRP is always performed at plant level, all stock that is available in the plant is included in the planning process.

Storage location MRP enables you to exclude stock in individual storage locations from the planning process at plant level or you can plan this stock separately at storage location level. Stock that is planned separately is not included in planning at plant level.

The type of order proposal that is automatically created by the planning process depends on the procurement type of the materials. For materials produced internally, a planned order is automatically created. For materials that are acquired

externally, the MRP manager can decide between a planned order, a purchase requisition, or a delivery schedule.

PLANNING PROCEDURES

The procedures for consumption-based planning include:

1. Reorder point planning.
2. Forecast-based planning.
3. Time-phased planning.

Reorder Point Planning

In reorder point planning, the system compares available warehouse stock with the reorder level. If available stock falls below the reorder level, an order proposal is created. If, however, the purchasing department has already created a purchase order for the required quantity, the system will not create another order proposal.

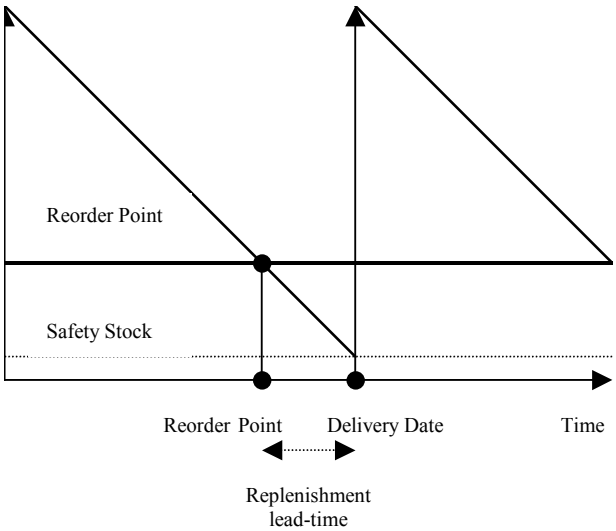
The reorder level (sometimes known as the reorder point) is calculated by adding the safety stock plus the expected average material consumption within the replenishment lead-time. When determining the reorder level, you must consider safety stock, previous consumption values or future requirements, and the replenishment lead-time.

Safety stock must be set at a level that covers both excess material consumption within the replenishment lead time and any additional requirements that may occur because of delivery delays. Therefore, you must consider previous consumption or future requirements, and vendor delivery/production timeliness when determining the safety stock level.

As a result, the reorder level and the safety stock level are key control parameters within reorder point planning. They can be determined automatically by the system or manually by the MRP manager.

The advantage of automatic reorder point planning is that the reorder level and the safety stock level are automatically adapted to the current consumption and delivery situation. This helps greatly to keep stock levels low.

Inventory management attains the constant monitoring of available warehouse stock in reorder point planning. Every time a material is taken out from the warehouse, the system checks whether this has caused the stock level to fall below the reorder level. If this is the case, a transaction entry is made in the planning line for the next planning process.



Forecast-Based Planning

Material utilization is also the key to forecast based planning. As in the

Enterprise Resource Planning System

automatic reorder point-planning procedure, the integrated forecasting program is used to determine forecast values for future requirements. The main difference between reorder point planning and forecast-based planning is that these forecast values are actually used for planning in forecast-based planning.

You also have the option of combining time-phased planning with reorder point planning. In this case, the material is not only planned on the planning date but also if a goods issue causes the stock level to fall below the reorder point.

Net Requirements Calculation

The requirement quantities forecast by the system are used in the planning process and the net requirements calculation is made. In this calculation, every period is checked to make sure that forecast requirements are covered either by available warehouse stock or by firmed receipts from purchasing. If existing receipts do not cover a forecast requirement, an order proposal is created.

By entering a range of coverage profile in the material master record, the system considers the ranges of coverage defined in Customizing for the net requirements calculation and creates a safety stock based on actual requirements.

LOT-SIZING PROCEDURES

The purpose of material requirements planning is to generate an order batch instruction proposal when a requirements shortage is calculated in the planning process. The lot size for the order batch instruction proposal is calculated according to the lot size entered by the MRP manager in the material master record.

BRID MRP supports the most modern lot-sizing procedures. User-specific formulas can also be integrated with relatively little effort. The procedures in the system for determining the lot size are divided into three groups: static, period, and optimum.

In static lot-sizing procedures, the lot size is calculated exclusively using the quantity specifications entered in the material master record. The lot size can be calculated according to three different criteria:

1. Lot-for-lot order quantity
2. Fixed lot size
3. Replenish to maximum stock level

In period lot-sizing procedures, the required quantities from one or several time periods are grouped together to form a lot. The system supports various periods. You can determine the number of periods to be grouped together in an order proposal. You have the following choices:

1. Daily lot size
2. Weekly lot size
3. Monthly lot size
4. Lot size according to flexible period lengths (based on accounting periods)
5. Lot size according to a planning calendar (definable period)

In optimum lot-sizing procedures, the required quantities for several periods are grouped together to form a lot. An optimum cost ratio is determined between lot size, independent costs, and storage

costs. The only difference between the various optimization procedures is the calculation of the minimum costs. The following optimum procedures are usually used:

1. Part period balancing
2. Least unit cost procedure

The following procedures are also available:

1. Dynamic lot size creation
2. Groff reorder procedure

You can influence the grouping of requirement quantities into a lot size using additional restrictions in the material master record:

1. On the one hand, you can enter limit values (minimum lot size and maximum lot size). These limit values are considered during lot-size calculation. This means that the lot-size is either rounded up to the minimum quantity or the system does not group required quantities that exceed the maximum lot size.
2. On the other hand, you can enter a rounding value or a profile. This means that during the lot-size calculation, the lot size is rounded to a multiple of the defined value if necessary, depending on defined threshold values.

The long-term lot size is used to split the time axis for materials planning into a short-term and a long-term area. In these two areas, the system calculates the lot-size using two different lot-sizing procedures. Consequently, you can instruct the system to group requirements over a larger period in the long-term area simply to produce a rough picture of the future master plan. In the short-term area, you can select a smaller, more precise lot size to suit your requirements.
In consumption-based planning, sales orders and reservations are not usually included in the net requirements calculation. However, you can set the system so that these requirements are considered in the planning process in reorder point planning and time-phased planning.

MRP Result

The results of the planning process for a material are summarized in both the MRP list and in the stock/requirements list. You can display these lists in a period split of your choice.

The MRP list displays the stock/requirements situation at the time of the last planning process. It provides a work basis for the MRP manager and is available in printed form as well as online. The MRP manager can easily select a particular MRP list by using various selection parameters. You can also create an overview of several MRP lists according to various selection criteria.

The structure of this list corresponds in content to the MRP list. However, the stock/requirements list displays the most up-to-date stock/requirements situation and includes any manual changes you have made since the last planning process. The MRP manager, providing that person with an accurate overview of material availability, can immediately access all activities, which are pertinent to MRP, such as, goods receipts or goods issues. You can also create an overview of several stock/requirements lists according to

various selection criteria (for example, product group, class, MRP manager, vendor or production line).

During a planning process, the system automatically recognizes conflict situations and records these as exception messages. Thus, the MRP manager is made aware of exceptional situations that may require attention.

Exception messages may refer to one of the following:

1. Scheduling delay
2. Rescheduling and cancellations
3. Stock level fallen below the safety stock level

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