Article # 1220

Technical Note: Factors Relevant to Updating Reorder Points Based on Reorder Point Formulas

Difficulty Level: Beginner Level AccountMate User

Version(s) Affected: AM7 for SQL and Express

Module(s) Affected: IC

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DESCRIPTION

In a manufacturing or trading business, it is often challenging for management to ensure that inventory quantity levels are sufficient to meet the required materials for production or fill the customer orders. A poorly managed inventory system may result in customer dissatisfaction due to delayed product delivery or a lost opportunity caused by an unfilled customer order. To effectively manage inventory levels, it is essential to consider the appropriate reorder points for the inventory items.

This Technical Note discusses the factors relevant for computing an inventory item’s reorder point. This document also discusses how the factors are computed and provides information about the default values used in the Reorder Point formula.

SOLUTION

In AccountMate, you may update a reorder point through the Inventory Reorder Qty Update function. One of the bases for computing an inventory item’s reorder point is the Reorder Point (ROP) formula. The ROP formula is as follows:

Reorder Point = (Average Sales/Usage per Day x Lead Time) + Safety Stock

You can deduce from the formula the factors that affect an item’s reorder point computation. The succeeding sections discuss each of these factors.

Average Sales/Usage per Day

Listed below are the different methods used to compute an inventory item’s average sales or per-day usage:

1. As a Percentage of Sales in All Warehouses
The formula to compute the average sales per day based on a percentage of sales in all warehouses is as follows:

\[
\text{Average Sales per Day} = \frac{\text{Sum of Quantities sold in All Warehouses}}{\text{No. of days in a specified date range}} \times %
\]

The sum of quantities sold in all warehouses must include only those sales invoices that are posted within the specified date range. You may specify the rate in the Rate field.

2. As a Percentage of Sales in a Specific Warehouse

The formula to compute the average sales per day based on a percentage of sales in a specific warehouse is as follows:

\[
\text{Average Sales per Day} = \frac{\text{Sum of Quantities sold in Specific Warehouses}}{\text{No. of days in a specified date range}} \times %
\]

The sum of quantities sold in a specific warehouse must include only those sales invoices that are posted within the specified date range. You may specify the rate in the Rate field.

3. As a Percentage of Usage in a Specific Warehouse

The formula to compute the average usage per day based on a percentage of usage in a specific warehouse is as follows:

\[
\text{Average Usage per Day} = \frac{\text{Sum of quantities used when posting Finished Jobs}}{\text{No. of days in a specified date range}} \times %
\]

The sum of quantities used when posting a finished job must include only those finished jobs that are posted within the specified date range. You may specify the rate in the Rate field.

4. Specific Quantity

You may specify the average quantity sold or used per day in the Quantity field adjacent to the Specific Quantity field in the ROP Factors window.

**Lead Time**

In business practice, there is always a time lag between the time a purchase order is processed and the time the goods are received. When computing for an item’s reorder point, it is advisable to consider the lead time in order to avoid insufficient inventory level.

AccountMate uses two lead time types: the Manufacturing Lead Time and Vendor Lead Time. The Manufacturing Lead Time is set up in the Information tab of the
Inventory Maintenance function. The Vendor Lead Time is set up in the Inventory Vendor function.

The conditions under which a manufacturing or vendor lead time is used in the reorder point computation are as follows:

1. If an inventory item has no specified manufacturing or vendor lead time, the default lead time is one.

2. If an inventory item is used in work order transactions only, the lead time is the value specified in the Mfg Lead Time field in the Inventory Maintenance function.

3. If an inventory item is used in purchase order transactions only, the lead time is the value specified in the Lead Time Days in the Inventory Vendor Maintenance function.
   a. If an item has more than one inventory vendor defined, the lead time that will be used is the default inventory vendor’s lead time.
   b. If an item has more than one inventory vendor defined but there is no default inventory vendor, the lead time that will be used is the lead time of the inventory vendor who has the best price for the item.
   c. If only one inventory vendor is defined and it is not set up as the default inventory vendor, the lead time that will be used is the existing inventory vendor’s lead time.

4. If an inventory item is used in both work order and purchase order transactions, the lead time will depend upon whether or not the item is a parent item.
   a. For parent items, you may choose to use either Mfg Lead Time or Vendor Lead Time in the ROP Formula window. The conditions in 3.a. through 3.c. apply if you choose the Vendor Lead Time.
   b. If the item is not a parent item, Vendor Lead Time will be used. To determine which of the vendor lead times to use, the conditions in 3.a. to 3.c. apply.

Safety Stock

Another factor for consideration in the reorder point computation is the inventory item’s safety stock. Since lead times and sales information or usage rates may not always be certain, stocking inventory items to a safe or conservative level can help minimize or avoid insufficient on-hand quantities. A safety stock level serves as a precautionary measure to ensure that the reorder level is high enough to meet production needs or complete customer orders during the procurement period.

You may define safety stock quantities in the Safety Stock field of the Inventory Maintenance function.

Understanding how AccountMate computes an inventory item’s reorder point based on ROP formulas helps you appropriately determine the item’s lead time and safety
stock level. This discussion about the factors relevant to the reorder point computation should help you to properly evaluate and manage inventory.

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