



# Requirements Planning

The OneOffice Requirements Planning module generates suggested purchase orders for stock items and works orders for manufactured products from the stock usage statistics, seasonality profiles, supplier lead times, and safety levels.

## Key Features at a Glance

- Suggests future requirements using either re-order levels or stock usage forecast
- Warnings if stock is going to run out before delivery etc
- Converts projected requirements into Purchase Orders and/or Works Orders

## Benefits

- Improved stock utilisation
- Avoids stock control issues due to seasonal factors
- Removes cost and inefficiency of maintaining requirements planning information in offline manual systems and spreadsheets

## Introduction

The formula used to predict the future requirements for each product is determined from the forecasting code on the product record. Suggested orders are created held pending review so that they can be amended before being turned into firm purchase orders. For planning purposes, a minimum, maximum and reorder stock level calculation can be performed without generating the suggested orders. Suggested orders can be generated according to stock usage or sales demand or stock reorder levels.

## Order Generation

Suggested orders can be generated for a single location or across all locations. In the latter case either a single purchase order can be generated for central delivery, or one purchase order can be generated per location.

When Requirements Planning is used in conjunction with both Purchase Order Processing and Works Order Processing, users can choose to generate suggested orders for purchase orders or works orders or both. When the option for both is selected OneOffice uses customised rules to determine whether suggested purchase orders or suggested works orders are generated for a product where it can be both manufactured and purchased.

For stock products, suggested purchase orders can be raised on the 'normal supplier', if there is no 'normal supplier' a series of rules can suggest a supplier.

Suggested works orders can be automatically generated from a bill of materials held on file for the product.

Usage of obsolete or superseded products can be added to the usage of the replacement product for forecasting.

Sales forecasts figures can be used to calculate suggested quantities and allow periodic ordering of products.

## Amending Suggested Orders

Suggested purchase orders and works orders can be reviewed in a variety of sequences. For purchase orders the supplier details can be altered, as well as the stock location and buyer code. Order line details may be amended to change quantities, prices, discounts and delivery date. In the case of works order, the location, bill, variant, buyer code, completion date and quantity can be altered. Lines can also be inserted or deleted, and comments can be added.

## Converting to Purchase Orders and Works Orders

When the suggested orders have been reviewed they can be converted into actual purchase orders on the Purchase Order Processing system or actual works orders on the Works Order Processing system.



## Calculating Requirements

For each product a different forecasting method can be used, or just the 'minimum re-order level'. The forecasting methods include:

- A seasonality profile code (see below).
- Stock safety level as a number of weeks or a quantity or both.
- Maximum stock level as a number of weeks.
- Minimum number of weeks stock to reorder (used in conjunction with the economic order quantity for the product and supplier).
- Number of previous periods to take into account when forecasting requirements.

- An exponential smoothing factor to be used to reduce the influence of previous periods. For example, if the smoothing factor is 90% and four previous periods are used, then it will use 100% of the last period, 90% of the previous, 81% of the 2nd previous and 72% of the 3rd previous.

The previous usage history used to forecast a product's future usage can cover the total quantity of the product issued from all issue sources or the quantity of the product issued to sales only; it can also include or exclude lost orders. Alternatively sales demand figures may be used as the basis for forecasting purchases. Essentially the total sales demand figure for a product is derived from direct sales and indirect sales. Direct sales are where sales orders

The screenshot shows the OneOffice application window with a 'Suggested Orders Selection' dialog box open. The dialog box contains the following information:

- Suggested Orders Selection:** Product From: 0000771, To: CrP\_800P, Location: 01, Supplier: , Branch: , Buyer: .
- Suggested Orders by Supplier:** Total Value of Suggested Orders: 374230.95

Product	Lotch	Supplier	Buyer	Quantity	Value	Price
SONHMDA230	01	110106	CH	50	3498.50	69.99
CKDF68-NET	01	850497	CH	102	1719.72	16.86
0047-95	01	AC-DIST	CH	163	2475.00	15.00
0047-99	01	AC-DIST	CH	87	1306.00	15.00
0048	03	AC10110	CH	960	11520.00	12.0000
D0947E	01	BAH7015	CH	312	2821.72	19.81
FAB12204	01	BAH7015	CH	100	90500.00	900.00
H004028	01	BAH7015	CH	256	970.24	3.79
H05-4	01	BAH7015	CH	200	219650.00	1098.25
JCE	01	BAH7015	CH	1200	240000.00	200.00
PLAT00405	01	V023	CH	220	877.80	3.99

Figure 1. Requirements Planning can provide proposals for the make-up of orders to be placed on suppliers. In this example, Active Intelligence™ is being used to provide additional information to the user about existing inventory levels and outstanding purchase orders as each proposal is viewed; currently Product #SONHMDA230.



are placed for the product, and indirect sales are where sales orders are placed for assemblies for which the product is a component.

automatically where usage information is available, or be defined by the user. Forecasting can also take into account company-specific projections when automatically calculating usage.

## Recalculating Optimal Stock Levels

When forecasts are generated the minimum, maximum and reorder level on the stock record can be updated ensuring that tracking of understocked, overstocked and items needing reordering will become more accurate as they will reflect current usage and seasonality.

## Seasonality Profiles

Seasonality profiles enable a different weighting to be given to different stock usage periods within the year which can in turn improve forecasting and stock turn. The profiles can be calculated

## Reports

A range of standard reports are available including:

- A suggested orders print showing suggested purchase orders and works orders, order date, completion and delivery date, the quantity, price per unit, stock location, buyer, supplier, branch and bill of materials.
- A transfer orders print showing list the suggested purchase orders or work orders that have been transferred to Purchase Order Processing or Works Order Processing.

The screenshot displays the OneOffice software interface. The main window is titled 'Suggested Order Details' and shows the following information:

- Location: 01 Central Warehouse
- Product: 0047 Polycomsoft 80/88 System Element

Below this, the 'Stock Details' window is open, showing a table of stock information:

Location	01	Central Warehouse			
Stock Qty	5457	Min Qty	500	Total Value	54570.00
Restricted	0	Reorder	0	Average Cost	10.00
Allocated	313	Max Qty	0	Original Cost	10.00
Free Stock	4899	Quoted Qty	198	Latest Cost	10.00
On Purchase	465	From Works	1	In Transit	0
Back Ordered	45	From Order	25	Call Off Qty	2

The 'Product Usage' window is also open, showing a table of usage data for the year 2004:

Location	01	Central Warehouse	To Year	2004	
Week	Issued Qty	Issued Cost	Sold Qty	Sold Cost	Received Qty
2004 5	108	1080.00	0	0.00	1000
2004 7	205	2040.40	205	2040.40	0
2004 6	112	904.00	12	96.00	0
2004 5	224	2016.00	214	1998.00	101
2004 4	14	140.00	2	20.00	150
2004 3	3	30.00	0	0.00	300
2004 2	6	60.00	6	60.00	0
2004 1	35	350.00	35	350.00	0

Figure 2. Prior to creating a proposed purchase or works order, a user can validate the proposal using information such as Product Usage by week.



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