



# Infor System21 Style Material Planning

Product Guide

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## About this guide

The purpose of this document is to describe the functions that can be used within the Material Planning Module.

## Intended audience

The guide is intended for any users of the P3 Material Planning business module.

## Related documents

You can find the documents in the product documentation section of the Infor Xtreme Support portal, as described in the "Contacting Infor" section.

## Contacting Infor

If you have questions about Infor products, go to the Infor Xtreme Support portal at [www.infor.com/inforxtreme](http://www.infor.com/inforxtreme).

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If you have comments about Infor documentation, contact [documentation@infor.com](mailto:documentation@infor.com).



## Planning Process Introduction

Within [Style](#) Material Planning, there are two modules: Master Production [Scheduling](#) ([MPS](#)) and [Material Requirements Planning](#) ([MRP](#)). These share a great deal of common logic. You can use either of the processes, or both; however, [MPS demand](#) normally drives [MRP](#).

The [MPS](#) or [MRP](#) runs build a future production requirement using data entered in [Style](#) Production and other applications, such as [Style](#) Sales Order Processing, [Style](#) Forecasting and [Style](#) Purchase Management.

**Note:** Before you can run [MPS](#) or [MRP](#), you must define [planning models](#) and [reporting profiles](#) and enter current sales, purchase and forecast data.

The output from the runs is a series of suggestions which:

- Suggest new production and purchase orders to meet required demand
- Re-plan any existing orders, by suggesting changes to order quantities and due dates

Although both [MPS](#) and [MRP](#) use the same processing rules, [MPS](#) gives a high level review of [demand](#) for sales, and items, critical to production. [MRP](#) extends that plan to include the [demand](#) for all materials. You can also use [MPS](#) for [capacity planning](#).

## Planning Models

To use [MPS](#) and [MRP](#), you define [planning models](#), which include:

- Stockrooms
- The planning process considers only materials in, or finished styles received into, stockrooms in the planning model.
- Calendar
- This is the production calendar for scheduling work and defining forecasting week numbers.
- Reporting profile
- This is the reporting period used on reports, enquiries and MPS/MRP reviews.

Use [planning models](#) to view the results of different plans. You can perform planning runs on different areas of your data and analyse the results of different runs.

**Note:** If you run [MRP](#) using the Include Suggested [MPS](#) parameter, you must define identical [MPS](#) and [MRP](#) models.

### **The Live Model**

You can define three types of model: centralised, [multi-plant](#) and plant. You can also specify whether the plants are live. You must define at least one [planning model](#) as the live model in the [company profile](#). From the live model, you can change or confirm resulting plans and schedules.

In a non [multi-plant](#) environment, you normally have one live [planning model](#) that you use to manage your ongoing production. To try other plans without changing the day-to-day [operation](#), you can [set up](#) other [planning models](#).

## Types of Demand

Within [MRP](#) and [MPS](#), there are three types of [demand](#):

- Independent
- Dependent
- Actual

### **Independent Demand**

[Independent demand](#) is [demand](#) entered for the item, such as sales orders or forecasts.

[Independent demand](#) does not involve any other item and you cannot calculate or derive it. It must originate from an external source.

### **Dependent Demand**

[Dependent demand](#) is [demand](#) on an item resulting from a plan to produce another. For example, if you produce an item, you must issue materials. The [demand](#) for the materials is [dependent demand](#).

You can have any number of [dependent demands](#) associated with a single [supply](#), or [production order](#). If you cancel the [production order](#), all of the [dependent demands](#) disappear.

For example, if you manufacture shoes, including all [components](#), you have a sales or forecast [demand](#) for your shoes. Since you also manufacture the soles of your shoes, they have their own [route](#) and [BOM](#).

You must [balance](#) an [independent demand](#) for shoes by a [supply](#), or production, order. This creates a [dependent demand](#) for soles, [balanced](#) by a [supply](#), or production, order and a [dependent demand](#) for laces, [balanced](#) by a [supply](#), or purchase, order. There is also a [dependent demand](#) for rubber [balanced](#) by a [supply](#), or purchase, order.

However:

- You can also sell laces independently, so they are also subject to independent demand, as sales orders or forecasts.



- You can place purchase orders for rubber well in advance. Therefore independent demand, as stock orders, also controls the orders by stock forecasts.

### **Actual Demand**

Actual [demand](#) is the sum of independent and [dependent demand](#) on an item.

## Common Processes

**Note:** The [MPS](#) and [MRP](#) runs generate data specific to a [planning model](#); the [planning model](#) defines the [stockrooms](#) to consider.

The [MPS/MRP](#) runs comprise two distinctive stages:

- Pre-processing
- Processing

After completing these stages, you review the output produced and make [scheduling](#) and procurement decisions based on the recommendations.

### **Pre-processing**

Pre-processing accumulates the reference data for the processing stage and consists of a number of steps:

- 1 [Low level code](#) analysis
- 2 Item selection and stock consolidation
- 3 Extraction of sales orders
- 4 Extraction of [production orders](#)
- 5 Extraction of [demand](#) from [MPS](#) ([MRP](#) only)
- 6 Extraction of purchase orders
- 7 Extraction of sales and [stock forecasts](#)

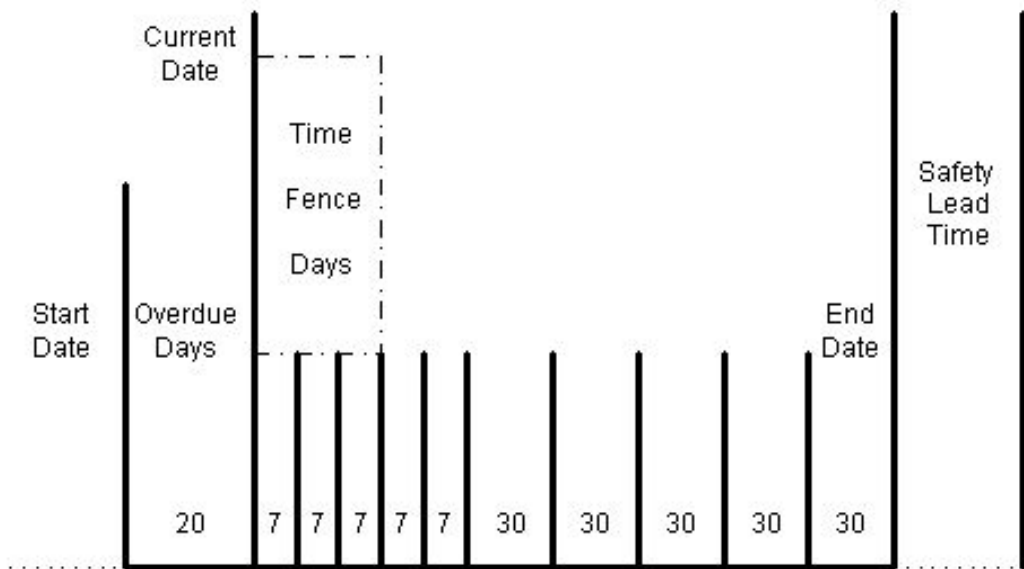
### **Processing**

Processing provides the analysis and produces the recommendations, and consists of a number of phases:

- 1 Consumption of forecast
- 2 Calculation of daily [demand](#)
- 3 Adjustment of [supply](#) to meet [net demand](#)
- 4 Summarisation of [variant](#) details to [style](#) level
- 5 Explosion of recommendations
- 6 Generation of daily [machine](#) and [labour loading](#) requirement

## Run Parameters

When you submit the [MPS](#) and [MRP](#) run, you enter parameters to determine the scope of the run. These user-defined dates and periods are shown in the following example:



User Defined Reporting Type 'Buckets'

### **Current Date**

This is the live date for the plan. The [start date](#) and frozen period, or [time fence](#) days are calculated from this date.

### **Overdue Days**

This is the number of days of overdue [supply](#) and [demand](#) you want to consider.

### **Start Date**

**Note:** This is not displayed for [MRP](#).

This is the first date considered for the run. Any orders before this date are ignored. This is the current date minus overdue days.

### **Time Fence Days**

The period between the current date and the [time fence](#) date is fixed. This is a frozen period, or schedule, in which the [MRP](#) or [MPS](#) run does not make any recommendations. You can either enter the [time fence](#) days, or use the [production lead time](#) for each [style](#).

If you want to use the production lead time, **check** the Use Item Time Fence field. You define the production lead time in the Item Master file. If you do not enter a time, or it cannot be calculated, the run uses the global, default time fence days.

### **Safety Horizon Days**

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This extends the end date to include all [generated demand](#) in the lower level analysis.

### **End Date**

This is the last date considered in the run. You can either enter the date directly, in which case the date is added to the safety [lead time](#), or leave the software to calculate this date as the [cumulative lead time](#) for each [style](#) added to the safety [lead time](#).

If you want to calculate the end date, **check** the Use Item End Date field. You enter the cumulative lead time in the Item Master file. If you do not enter a time, or it cannot be calculated, the run uses the global, default end date.

**Note:** When calculating the [time fence](#) days and end date for non-production items, the software uses the purchasing [lead time](#).

### **Pre-processing**

Both [MPS](#) and [MRP](#) explode high level [demand](#) into lower level supplies and [demands](#). [Demand](#) is an anticipated event that reduces the [stockroom](#) inventory of an item, for example issues to satisfy customer sales or [production orders](#).

[Supply](#) is an anticipated event that increases the [stockroom](#) inventory of an item, for example, receipt from a [production order](#) or a purchase order.

**Note:** [Sales forecasts](#) also represent [demands](#).

[Style](#) Material Planning processes all the [demands](#) and supplies for all your [styles](#) and identifies where you need to change your plans. To do this, the software calculates the expected stock level of every [style](#) throughout a specified period. The software compares the existing stock level with the required stock of the [style](#) and displays suggested actions whenever you cannot meet requirements.

The software first considers the [demand](#) on your finished products, so that it can determine whether your current plans will provide enough stock. If not, the software recommends suggested supplies, usually by [production orders](#).

All existing [production orders](#) and new suggestions create [demands](#) on [component](#) items. Therefore when the software has reviewed all finished products, it then reviews the [components](#).

This process continues until all items have been reviewed.

### **Step 1: Low Level Code Analysis**

This step checks the database to make sure that there are no conditions present that will cause the planning run to fail. It validates the data and then assigns the [low level codes](#).

**Note:** To check all [routes](#) and [BOMs](#), run the Generate [Low Level Codes](#) task before running [MPS](#) and [MRP](#).

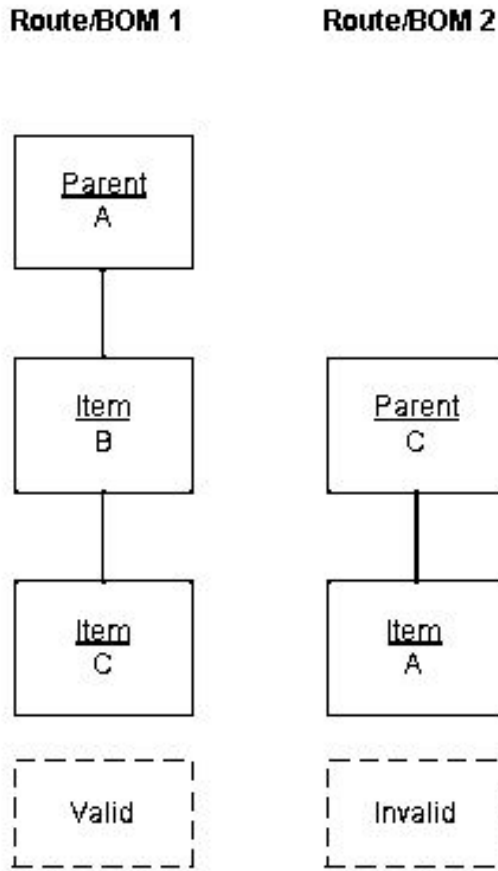
**Note:** If you check the Suppress [Low Level Code](#) Generation field on the [MRP](#) Run Details Selection window, this phase is skipped.

**Note:** For [MPS](#), the Lowest Level to Review field on the [MPS](#) Run Options window determines how many levels, within [routes](#) and [BOMs](#), the software searches for occurrences of items.

**Note:** If you have multi-level [routes](#) and [BOMs](#), make sure you set the level to include the lowest level at which an item occurs.

## **Low Level Code Integrity Checking**

The run examines all [planning routes](#), and changed [production order routes](#), for a parent and child relationship inconsistent with other defined relationships. For example:



[Route/BOM 2](#) is invalid, as A is a parent of C in [route/BOM 1](#). An item cannot be both the child and the parent.

**Caution:** Invalid routes generate an exception report, which shows all invalid parent and child relationships. The MPS or MRP run terminates. You must correct your route or BOMs before re-submitting the job.

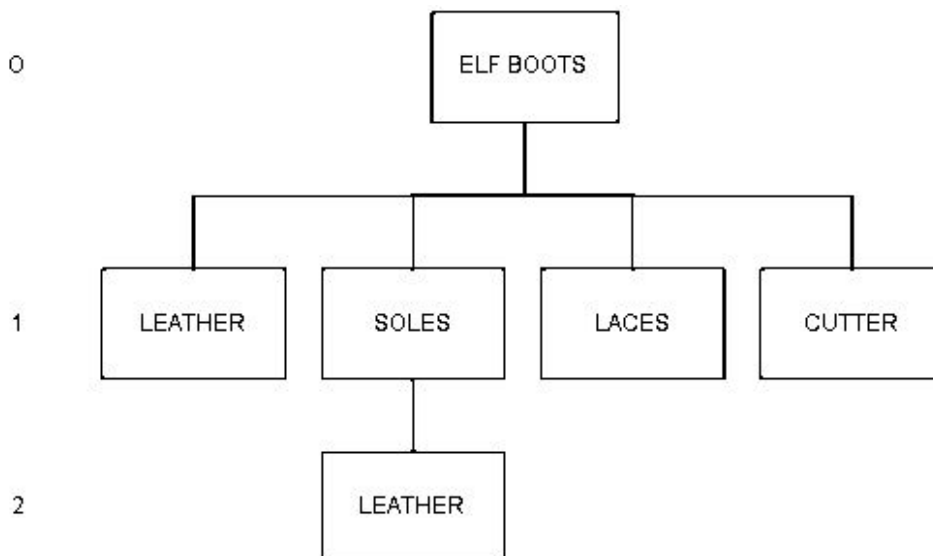
### **Assignment of Low Level Codes**

The [low level code](#) of an item shows the lowest level at which the item appears in any [route](#) or [BOM](#). This is held in the Item Master file. The planning routines review the items in a sequence based on the [low level code](#). This makes sure that all higher level, [dependent demand](#) is generated before an item is reviewed.

When you maintain the [route](#) or [BOM](#), you can change the lowest position of an item. Therefore, the planning routines start by reviewing the [low level codes](#). Any changes are updated in the Item Master file.

**Note:** You can review the lowest level code using the Enquire on Item Master.

Items with no parents in the [route](#) and [BOMs](#) have a [low level code](#) of zero (0). Items with one level of parent are level 1, and so on.



For example, Leather is at levels 1 and 2, so the [low level code](#) is 2.

**Note:** It is unusual for [route](#) and [BOMs](#) within [Style](#) Production to create levels lower than 2.

## Step 2: Item Selection and Stock Consolidation

This step reviews all items in the Item Master file and extracts the items to include in the run and any items you want to review.

**Note:** You use the [Planning Type](#) field in the Item Master file to define an item as [MPS](#) or [MRP](#). You normally define manufactured items as [MPS items](#), and purchased items as [MRP items](#).

### Item Selection

The [MPS](#) review selects items that meet the following criteria:

- MPS items with a low level code less than or equal to the specified low level code cut-off, and which have a stockroom balance in at least one of the stockrooms defined in the planning model
- MRP items with a low level code less than the selected cut-off level, which have MPS items as components with low level codes less than or equal to the cut-off level

**This traps all possible [dependent demand](#) for [MPS items](#).**

The [MRP](#) review selects items which meet the following criteria:

- MRP items residing in stockrooms defined in the planning model
- Items, not in the planning model, with dependent items that meet the above criteria
- If you are running an MRP selective run, MRP items which meet user selection criteria
- MRP items dependent on selectively reviewed items

## **Stock Consolidation**

The opening stock [balance](#) for the [MPS](#) or [MRP](#) review is the total [physical stock](#) for each valid [stockroom](#). [Frozen stock](#) is included if the Parameter file type PSTK/FRZN parameter is switched on.

The software uses the [lead time](#) defined on the first [supplier](#) in the item/[supplier](#) profile for the [primary stockroom](#). If this does not exist, the software uses the [lead time](#) defined for the [stockroom](#).

If you use Requisitioning, the software uses the [supplier](#) on the item/[supplier](#) profile for the [stockroom](#). If none exists, the software uses the first [supplier](#) it can find for the item. Otherwise, it uses the first [supplier](#) defined to the [stockroom](#). If there are no [suppliers](#) defined to the [stockroom](#), the software leaves the [supplier](#) blank.

### **Step 3: Extract Sales Orders**

This step selects the outstanding sales order [balances](#) for the items selected in Step 2. It summarises every order line for each extracted item, [colour](#) and size. The routine extracts the item, size and [colour](#) record according to the following criteria:

- The order status is blank.
- There is an outstanding ship quantity.
- The shipment date is within the start and end date of the run.

You define the [stockroom](#), [warehouse](#) or depot on the [planning model](#).

### **Step 4: Extract Production Orders**

Within [MRP](#) and [MPS](#), this step selects:

- Supplies associated with the MRP or MPS items selected in Step 2
- Dependent demands on items, selected in Step 2, emanating from supplies of MPS or MRP items

The software checks each order to see if:

- The due date is within the start and end date of the run
- The receiving stockroom is in the planning model
- If the stockroom is not in the model, the order is exploded down to its material demand. (For MPS this is dependent on the low level code specified for the run.)

The routine also checks whether the materials are a selected item (Step 2), the issuing [stockroom](#) is in the [planning model](#), and that there is a required date within the start and end dates of the run. This identifies all [generated demand](#).

### **Step 5: Extract Demand from MPS (MRP only)**

This step is only present in [MRP](#) and extracts [dependent demand](#) generated in [MPS](#) applicable to relevant [MRP](#) items.

It reviews every suggested order for an [MPS item](#) and determines if it has a [dependent demand](#) for an [MRP](#) item selected in Step 2. If so, the software checks the [demand](#) record to establish the issuing [stockroom](#). If the [stockroom](#) is used in the [planning model](#), it extracts the [demand](#) for review.

If you **checked** the Include Suggested MPS (Production Orders) field, the software also reviews the MPS planning model and extracts the suggested MPS production orders. The MRP run uses the

planning route of the MPS parent item to identify the MRP item material requirement. It uses the MPS suggested due date and quantity as the basis of the requirement calculation.

The software also checks whether you can use the [MRP](#) materials at the time of the requirement (see Phase 4 of processing).

### Step 6: Extract Purchase Orders

The software first extracts scheduled and blanket orders and then extracts outstanding orders.

#### **Extract Scheduled and Blanket Orders**

Scheduled and blanket orders are extracted if the deliver-to [stockroom](#) is defined in the [planning model](#). The uncommitted quantity outstanding on the schedule is planned for receipt at the end of the run. This is so that you can re-schedule the uncommitted portion to meet earlier shortages.

#### **Extract Outstanding Orders**

This extracts outstanding orders and goods received not booked into [stockrooms](#). Outstanding orders with a receipt date within the run date range are also extracted. The receipt date is the latest of the due date, expected date and promised date.

The software only extracts purchase orders for common materials, material group items, finished goods and subcontracted items. It also extracts [goods inwards](#) and inspection status purchase orders even though you cannot re-schedule these orders.

The outstanding quantity on extracted orders is taken from [Style](#) Purchase Management or [Style](#) Inventory Management.

### Step 7: Extract Sales and [Stock Forecasts](#)

This step extracts the sales and [stock forecasts](#) for items within the [planning model](#).

**Note:** Forecast data is only extracted if you have generated item forecasts or transferred forecasts from [Style](#) Forecasting.

The processing depends on the levels of forecast you generated:

- For variant level forecasts only, this step automatically generates a style level forecast.
- For style level forecasts only, these forecasts are style level only. The processing routines do not include them in the netting phase. In addition, the Phase 3 processing stage generates a style level only supply order (production or purchase).
- If style and colour, and style, colour and size, but not style level forecasts exist, a style level forecast is generated from the style, colour and size forecast.

[Style](#) level only forecasts are identified by a [demand](#) status code, with a Y prefix, for example, YF [STYLE](#) forecast.

The forecast extraction and generation process is summarised as follows:

Style	Style/Colour	Style/Colour/Size	Extract	Generate Style From
No	No	Yes	S/C/S	S/C/S
No	Yes	No	Nothing	S/C

Yes	No	No	Style	
No	Yes	Yes	S/C/S	S/C/S
Yes	No	Yes	S and S/C/S	
Yes	Yes	No	Style	
Yes	Yes\	Yes	S and S/C/S	

Where:

S/C/S is [Style](#), [Colour](#) and Size

S/C is [Style](#) and [Colour](#)

S is [Style](#)

## Processing

### Phase 1: Consumption of Forecast

You use the [MPS/MRP](#) Consume Forecast field in the [company profile](#) to determine whether the forecast comparison is a discrete comparison or a cumulative consumption.

The comparison is also governed by the [demand policy](#) setting in the Item Master file, which can modify the consumption process for an item or range of items.

**Note:** If you do not want to forecast an item, the [demand](#) is from sales orders only and the cumulative consumption of forecast is forced. If you want to include forecasting, you must have generated the forecasts before running [MRP](#) or [MPS](#).

### Discrete Comparison

This method compares the forecast with the actual [demand](#) for a forecast period. The greater of the forecast and the [demand](#) becomes the [demand](#) figure for the item. The discrete method is only used where a [sales forecast](#) exists as an element of [demand](#); if a forecast is not present, the cumulative method will be forced.

### Cumulative Consumption

This method compares the cumulative forecast [demand](#) and the cumulative actual [demand](#) to the end of the forecast period.

The [demand](#) is calculated as follows:

- Operation 1 calculates the cumulative forecast.
- Operation 2 is the cumulative actual demand.
- Operation 3 sets the cumulative demand to the greater of the cumulative forecast or cumulative actual demand.
- Operation 4 calculates the consumed cumulative as the sum of the consumed cumulative demand excluding the current period.
- Operation 5 calculates the current period demand.



## **Demand Policy**

The consumption of forecast calculation depends on the [demand policy](#) set in the Item Master file, which defines the actual [demand](#) calculation for each period. [Demand](#) can comprise one or more of sales [demand](#), forecast [demand](#) and [dependent demand](#).

### **Demand Policies**

<b>Code</b>	<b>Description</b>	<b>Demand Definition</b>
0 or blank	Total actual demand	Sum of sales orders plus dependent demand; no forecast
1	Forecasts compared with independent demand	Greater of (forecast or sales orders) plus dependent demand
2	Forecasts compared with total demand	Greater of (sales orders plus dependent demand) or forecasts
3	Independent demand compared with dependent demand	Greater of sales orders or dependent demand; no forecast
5	Make to forecast	Equal to forecast only; no sales orders or dependent demand
6	Total demand	Total demand; that is sum of forecasts plus sales orders plus dependent demand

### **Demand Policies and Consumption of Forecast**

For Discrete Comparison, the total [demand](#) is calculated, for each [demand policy](#), as follows:

- Policy 0: Sales Order + Dependent Demand
- Policy 1 without Dependent Demand: the greater of Forecast or Sales Orders
- Policy 1 with Dependent Demand: (the greater of Forecast or Sales Orders) + Dependent Demand
- Policy 2: the greater of (Sales Order + Dependent Demand) or Forecast
- Policy 3: the Greater of Sales Orders or Dependent Demand
- Policy 5: Forecast
- Policy 6: Sales Orders + Dependent Demand + Forecast

For Cumulative Consumption, the total [demand](#) is calculated, for each [demand policy](#), as follows:

- Policy 0: (Cumulative Sales + Cumulative Dependent Demand) - Previous Period's Consumption
- Policy 1 without Dependent Demand: (the greater of Cumulative Sales or Cumulative Forecast) - Previous Period's Consumption
- Policy 1 with Dependent Demand: (the greater of Cumulative Sales or Cumulative Forecast) - Previous Period's Consumption + Dependent Demand
- Policy 2: The greater of ((Cumulative Sales + Cumulative Dependent Demand) or Cumulative Forecast) - Previous Period's Consumption

- Policy 3: (the greater of Cumulative Sales or Cumulative Dependent Demand) - Previous Period's Consumption
- Policy 5: Cumulative Forecast - Previous Period's Consumption
- Policy 6: Cumulative Sales + Cumulative Dependent Demand + Cumulative Forecast - Previous Period's Consumption

## Phase 2: Calculate Daily Net Demand

The run calculates, on a daily basis, the gross and [net demand](#), and the [available stock](#) for each selected item.

Gross [Demand](#) = (netted [sales forecasts](#), sales orders and dependent [production order demand](#)) + [safety stock](#) (target inventory level) + [stock forecast](#)

[Available Stock](#) = ([physical stock](#) (for the first period in the run) or projected [available stock](#) (for future periods in run)) + outstanding production or purchase order quantities

[Net Demand](#) = Gross [Demand](#) - [Available Stock](#)

**Note:** The [physical stock](#) includes [Frozen stock](#) if the Parameter file type PSTK/FRZN parameter is switched on.

## Phase 3: Adjust Supply to Meet Net Demand

After calculating the [net demand](#), the run makes recommended changes to [supply](#) orders to correct any imbalance. The [time fence](#), [planning filter](#) and [order policy](#) codes influence these recommendations.

### Net Demand < 0

If [net demand](#) is negative, you have an over [supply](#) condition. The run recommends you reduce the [supply](#) quantity, or cancel an order if the [demand](#) is non-existent.

### Net Demand > 0

If [net demand](#) is positive, you have a [supply](#) shortage. The run attempts to cover the shortage by re-[scheduling](#) any cancelled orders, then re-[scheduling](#) live orders. It also recommends a quantity change. Finally, it generates suggested [supply](#) orders to meet the deficit.

New order quantities depend on the [order policy](#) code set in the Item Master file.

### Net Demand = 0

If [net demand](#) is zero, the [supply](#) and [demand](#) are in [balance](#) and the current plan does not need modification.

### Time Fence Days

The run makes no recommendations to change orders, in either timing or quantity, within the [time fence](#) days; it does not re-schedule orders into the frozen period; or suggest new orders due inside this period.

### Planning Filters

You can use [planning filters](#) to control the re-scheduling of any [MPS](#) or [MRP](#) recommendations. You define [planning filters](#) in the Parameters file (type WTYP). You can specify default values for an item in the Item Master file or for a specific [production order](#).

[Planning filters](#) also control the [MPS](#) or [MRP](#) re-scheduling of [production order](#) dates or quantities or both.

### Date Reschedule Policy

You can expedite (bring due date in, schedule earlier) or delay (defer, take due date out) [production orders](#). You can restrict date re-scheduling recommendations as follows:

- No re-schedule allowed
- Any re-schedule allowed
- Re-schedule allowed if not less than a specified number of days
- Re-schedule allowed if not less than a specified percentage of the lead time
- Re-schedule allowed if the resulting order value is greater than the extended value, where order value = (suggested quantity x Inventory standard cost)

### Quantity Reschedule Policy

You can increase, decrease or cancel [production order](#) quantities. You can restrict quantity re-scheduling recommendations as follows:

- No re-schedule allowed
- Any re-schedule allowed
- Re-schedule allowed if not less than minimum order quantity
- Re-schedule allowed if not less than the entered percentage of an item's safety stock

You can change the global [operation](#) of the software by changing the rules for standard order types, or use the [planning filter](#) to vary the [operation](#) according to specific situations.

You can allow or restrict recommendations to cancel an order. You can also use these modifications with purchase orders although different rules may govern the [scheduling](#) of normal, schedule, blanket and user defined purchase orders.

The [planning filter](#), assigned to an item or individual order, conditions the run response. If you define the re-schedule policy for the order type and the assigned filter, the filter rules are used. If you are not using a filter, the rules applying to the order type are used. If neither order type nor filter has a policy defined, the order is not subject to recommendation. For additional information on [planning filters](#), see the [Style](#) Production Definition Management product guide.

### Order Policy Codes

The Item Master file production details include an [order policy](#) code and associated parameters for the suggested orders.

Code	Description	Recommended Quantity	Example
A	Discrete	Required quantity	Actual demand Recommended quantity
			100 100

B	Discrete above minimum	Greater of Required quantity or Minimum Order Quantity	Minimum order quantity	200
			Actual demand	100
			Recommended quantity	200
D	Fixed quantity	Enough batches of the Fixed Order Quantity to satisfy the required quantity	Fixed quantity	80
			Actual demand	100
			Recommended quantity	160
G	Number of days supply	Enough to satisfy all requirements for the specified number of days from the initial shortage date	Number of days supply	3
			Monday	20
			Tuesday	20
			Wednesday	30
			Recommended quantity	70
H	Multiples above minimum	Greater of enough batches of the Multiple Order Quantity and the Minimum Order Quantity	Minimum order quantity	200
			Multiple order quantity	500 50
			Actual demand	101
			Recommended quantity	200
			Actual demand	501
I	Multiples up to a maximum	Maximum is the physical maximum possible in a factory	Max order quantity	500
			Recommended quantity	550

Multiple order quantity	50
Actual demand	101
Recommended quantity	200
Actual demand	501
Recommended quantity	500
	50

#### Phase 4: Summarise Variant Details to Style Level

The software processes the first three phases at [style](#), [colour](#) and size level, whereas Phase 4 updates at [style](#) level. The information summary depends on whether you are processing new suggested orders or changing existing orders (production or purchase).

##### **Suggested Order**

The software accumulates quantities from all [colour](#) and size records for the same [style](#) and date and creates a [style](#) record for the total.

##### **Change to Existing Order**

The software can suggest different changes for each [colour](#) and size on a single order. For example, on some [colours](#), you need bring in the due date and on others, you need to take out the due date or change the quantity.

The software changes the original order to match the date to which most [colours](#) and sizes are linked. It then creates suggested orders for the other dates, changing the original [order status](#) to Suggested for all [colours](#) and sizes.

#### Phase 5: Explode Recommendations

This phase generates [dependent demand](#) records for the [supply](#) changes identified in Phase 3.

##### **Suggested and Planned Orders**

First, the software back-schedules each suggested and planned order to determine the planned [start date](#) of each [operation](#). Then it examines the materials issued at that [operation](#) to determine whether they are effective on the specific date. If so, it creates a [dependent demand](#) record.

Using the suggested due date as a basis, the software explodes the [route/BOM](#) through its [operations](#). It calculates the [lead time](#) of each [operation](#), using the standard times, and applies the recommended order [supply](#) quantity to inflate or deflate the times. The actual [route](#) used depends on the settings on the Additional Parameters [MPS](#) Run pop-up:

- If you **check** the Include Capacity field, the software uses the capacity route entered in the Capacity Route field.
- If you **check** the Include Capacity field and the Use Planning Route field, the item's planning route is used.
- If you leave the Include Capacity field **unchecked**, the item's planning route is used.

To get an [operation start date](#), the software also applies any wastage defined to the cycle times. The [lead time](#) calculation includes any [parallel processing operations](#), defined by the [bundle ticket](#) type. The software checks the dates against the calendar for the [machine](#), to make sure the [operation start date](#) is a working day.

The routine also creates [operation load](#) records (for [suggested production orders](#) only); that is, start and end dates, [machine](#), [labour profile](#), [machine](#) and [labour time](#) (run and setting). Phase 6 uses these records.

### Back scheduling Example

Move Time	Specified in route/BOM maintenance.
Queue Time	Specified by machine, in machine maintenance.
Duration Time	Calculated from the times specified in the route.
Order Due Date	30/10/06
(A) Order Quantity	10
(B) Standard Lot Size	1
(C) Standard Machine Time	3 hours
(D) Operational Wastage	10%
(E) Machine Duration Time	$((C \times A)/B) \times ((100/(100-D))$ $((3 \times 10)/1) \times (100/(100-10))$ 33.33 hours
(F) Standard Shift Length	7 hours
Duration Days	E/F 33.33/7 4.76 days 5 days (rounded up)
Start Date	25/10/06

### Material Effectivity Check

After establishing the planned [start date](#), the run extracts all the materials required at the [operation](#) and checks their effectivity.

The run generates a requirement if the material's effectivity [start date](#) is less than, or equal, to the calculated [operation start date](#), and its effectivity stop date is greater than the [operation start date](#). It then checks the effective materials for an issuing [stockroom](#) in the [planning model](#). The quantity of material required is calculated as:

Recommended order quantity x cumulative [operation](#) wastage x [quantity per standard lot size](#) x [material wastage](#)

### Material Requirement Calculation

Order quantity	100
Cumulative wastage at <a href="#">operation</a>	15%
Lot size on <a href="#">planning route</a>	10
<a href="#">Quantity per standard lot size</a>	10
<a href="#">Material wastage</a>	5%
Cumulative <a href="#">operation</a> wastage	$100/(100-B)=100/(100-15)=1.1764$
<a href="#">Material wastage</a>	$100/(100-E)=100/(100-5)=1.0526$
Requirement	$A \times F/C \times D \times G = 123.8$

**Note:** If you check the [Fixed Quantity Per](#) field for a material on a [route/BOM](#), the requirement is always the [Quantity Per Lot size](#); wastage is not calculated

### **Firm, Released and Active Production Orders**

These orders are exploded down to the material requirements defined on [production orders](#).

To establish the [operation](#) start and material requirement dates, the starting point for the back-[scheduling](#) routine is the current order due date, or the run suggested due date. The software also calculates the outstanding [operation lead time](#) and the material requirements at [operations](#).

### **Calculate Outstanding [Operation Lead Time](#)**

The outstanding time at an [operation](#) is based on the amount of work completed. Rather than using a fixed [lead time](#), the [operation lead times](#) are examined when back-[scheduling](#).

The [operation start dates](#) are calculated using the order quantity. If the run recommends a change of order quantity, the existing [operation lead times](#) are re-calculated.

### **Calculate Material Requirements at [Operations](#)**

The re-calculated [operation start dates](#) are the revised [demand](#) dates for all materials scheduled at an [operation](#). The software uses these [demand](#) dates when analysing the [demands](#) for the materials. The run includes any changes at the parent level in the [generated demand](#) at the material requirement level. To produce an integrated material plan, this effect is cascaded down the levels of the process structure.

Requirement quantities are re-calculated based on suggested order quantity changes at the [production order](#) level.

If the run suggests cancelling a [production order](#), it does not explode the [route](#), and the material [demand](#) is dropped from the plan. If you have already issued materials, you should return these to the issuing [stockrooms](#).

## **Purchased Items**

Recommendations for purchased items (item types **B** (Bought out), **P** (Purchased) or **T** (Consumable tool)) are not exploded through routes, and the review does not include these items.

The software calculates the [lead times](#) for purchased items as follows:

- For existing orders, the software uses the receipt due date, except for unscheduled schedule or blanket orders where the due date is the end date of the run.
- If no purchase orders exist for an item, the software uses the Style Purchase Management item/supplier profile. If this is not available, it uses the lead time for the item and stockroom.

## **Phase 6: Generate Daily [Machine](#) or [Labour Loading](#)**

This phase spreads the [operation load](#) for suggested orders, generated in Phase 5, into daily [machine](#) and [labour loadings](#).

**Note:** *The run only includes this phase if you check the Include [Capacity](#) flag on the Additional Parameters Run pop-up.*

### **Daily Machine Loadings**

This is the [operation loading](#) for [machines](#) split into individual days.

### **Daily Labour Loadings**

Using the [operation loads](#), the run generates separate records for each [labour](#) skill, within the [labour profile](#) defined at the [operation](#).

# Demand, Supply and Action Codes

[MPS](#) and [MRP](#) reviews, and reports, display, or print, the following status codes:

- Demand status codes
- Supply status codes
- Action codes

You define these codes in the Parameters file.

**Note:** *Codes including the term Excluded refer to [demand](#) or [supply](#) excluded from the review.*

**Note:** *Codes which include the term [STYLE](#) relate to [demand](#) which is at [style](#) level only; that is, there is no defined requirement at [style](#), [colour](#) and size level.*

## Demand Status Codes

You define [demand](#) status codes in the Parameters file, under type PDSC.

### **Demand Status Codes**



CA	Cancelled
CD	Cumulative demand, if cumulative consumption of forecast
CW	Confirmed production order
FC	Sales forecast
FS	Stock forecast
FX	Forecast (excluded)
IW	Active production order
MA	[MPS] Manual adjustment
MX	[MPS] Manual adjustment (excluded)
PW	Planned production order
PX	Suggested purchase order (excluded)
RW	Released production order
SO	Sales order
SP	Suggested purchase order
SW	Suggested production order
SX	Sales order (excluded)
WX	Production order (excluded)
YF	STYLE sales forecast
YP	STYLE suggested purchase order
YS	STYLE stock forecast
YW	STYLE suggested production order

## Supply Status Codes

You define [supply](#) status codes in the Parameters file, under type PSSC.

### Supply Status Codes

CN	Cancelled
CO	Complete production order
CP	Confirmed purchase
CW	Confirmed production order
GI	Goods inwards

IS	In inspection
IW	Active production order
PW	Planned production order
RW	Released production order
SP	Suggested purchase order
SW	Suggested production order
YW	STYLE suggested production order
YP	STYLE suggested purchase order

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## Action Codes

[MPS](#) and [MRP](#) runs provide planning support. The advice given is based on the latest status of material requirements and the current [order status](#).

The action codes are the recommendations that the runs can make. The software can combine these codes; some examples are shown later in this section.

You define action codes in the Parameters file, under type PEXC.

**Note:** If the recommendation compromises material effectivity, that is, the material is not effective on the [route/BOM](#) on that date, warning codes are also displayed.

You can use the review facilities, for both [MPS](#) and [MRP](#), to view orders in original and suggested due date sequence.

**Note:** The four letter codes shown in the table, for example ROCQ, can be displayed separated by date, with a suggested change quantity.

**Note:** Example: RO11/09 CQ 2.

### Action Codes

CA	Cancel order
CQ	Change quantity (mix)
EF	Check effectivity
EI	Re-schedule in and check effectivity
EICQ	Re-schedule in and change quantity and check effectivity
EO	Re-schedule out and check effectivity
EOCQ	Re-schedule out and change quantity and check effectivity
EQCQ	Change quantity and check effectivity
RI	Re-schedule in

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RICQ	Re-schedule in and change quantity
RO	Re-schedule out
ROCQ	Re-schedule out and change quantity

### Action Recommendation Examples

Order	Qty	St	Action
W000156	122	CW	RI 15/08 CQ 1180 Re-schedule order due date in to 15 August, and change quantity from 122 to 1180
W0007716	30	IW	RO11/09 CQ 25 Re-schedule order due date out; defer until 11 September, and change quantity from 30 to 25

## MPS Specific Processes

You can use the [MPS](#) specific processes for:

- Capacity planning
- MPS items selection, planning type 1
- Amendments to suggested production orders; such as changes in quantities, routes, due dates and planning filters
- Definition of a cut-off low level code as a parameter; below which the run will not look for any occurrence of MPS items
- Saving different versions of the Master Production Schedule against revision level codes
- Reviewing demand part way through the run; so you can make changes to incorporate when the run begins

## Capacity Planning

This is a unique function within Master Production [Scheduling](#). You use this to compare [available machine](#) and [labour capacity](#) against projected workloads.

You can use either standard [planning route/BOMs](#) or specially derived [capacity routes](#). You can then use the [Capacity](#) Review facility to change the workload schedule at [production order](#) level.

[MPS](#) uses [capacity planning](#) to:

- Take account of machine capacities when assessing the demand proposed by MPS plans
- Determine a loading factor for each machine
- Determine labour loading

[MPS](#) can use summary routings to determine [loading](#) on [Style](#) Production [resources](#).

#### [Capacity planning](#):

- Uses planning route information to convert demand, in quantities, into the number of hours required at each machine
- Uses planned supply dates to schedule required hours into weekly production time slots at each machine. It takes account of machine standard capacities, planned down times and non working days.
- Creates reports and enquiries that you can use to compare the required and available machine and work centre hours within the planning run timescales
- From these reports and enquiries, you can search for overload and underload at machines and for labour skills. Then, choose any action required.

Although you can finite [capacity](#) plan by individual order, the software assumes infinite [capacity](#) of the facility. Therefore the [planner](#) must fine-tune the workload to optimise the [loading](#) factor and [utilisation](#) of production [capacity](#).

## MRP Specific Processes

You can use the [MRP](#) specific processes for:

- MRP items selection, planning type 0
- Running selective MRP, based on a range of items
- Directly entering the MPS suggestions into the material plan

You can choose from the following processing modes:

- Regenerative - To plan for all materials
- Selective - To plan for a range of materials in the planning model
- Net Change - To consider only materials with a change of demand or supply since the last MRP run

# Material Requirements Planning Overview

[Material Requirements Planning](#) has three functions:

- Run MRP
- Review MRP
- Confirm suggested orders

## **Run MRP**

There are three types of [MRP](#) run:

- Regenerative MRP Run

This examines all current supplies and [demands](#) against items designated as [MRP](#) items. This can take a long time, so we recommend that you run this once a month over a weekend.

- Net Change MRP Run

This only checks those materials that have changes to their [demand](#) or [supply](#) since the last [MRP](#) run. This run is shorter than a full [MRP](#) run. If you run the [Net Change MRP run](#) frequently, for example, daily, you can immediately revise the plan for any materials affected by a change in [demand](#) or [supply](#). We suggest that you run the [Net Change MRP run](#) weekly.

- Selective MRP Run

Use this type of run to run [MRP](#) for selected items.

Each type of run generates suggestions for actions you must take to satisfy the plan.

**Caution:** If you run a number of Net Change MRP runs in succession, they will become slower than a Regenerative MRP run.

## **Review MRP**

Use the Review [MRP](#) task to examine the results from the [MRP](#) run to check whether you have the orders needed to meet the plan. You can then cancel, add or change any of the orders, as the plan suggests.

## **Confirm Suggested Orders**

You can confirm suggested orders either individually, using the review processes, or altogether using the stand alone routine.

## Maintain Model Stockrooms [1/P3M]

Use this task to create and maintain [MRP planning models](#).

You can use the same model for [MRP](#) as for [MPS](#), or you can have a separate [MRP](#) model with different [stockrooms](#) and planning periods.

In both cases, you must define the model in both [MPS](#) and [MRP](#).

This task is the same as the Maintain Model [Stockrooms](#) in [MPS](#). For more information, refer to the Maintain Model [Stockrooms](#) section in the Production [Scheduling](#) Maintenance chapter of the [Style Production Planning](#) product guide.

## Maintain Reporting Profile [2/P3M]

Use this task to specify how the planning functions summarise the [supply](#) and [demand](#) information for enquiries and reports.

This task is the same as the Maintain [Reporting Profile](#) task in [MPS](#). For more information, refer to the Maintain [Reporting Profile](#) section in the Production [Scheduling](#) Maintenance chapter of the [Style Production Planning](#) product guide.

**Note:** You must run this task for [MPS](#) first and then for [MRP](#).

## Net Change Reason Codes [3/P3M]

Use this task to activate or de-activate [triggers](#) upon events for a [Net Change MRP run](#). You do this by maintaining reason codes, which control the [triggers](#) for certain events.

You must create the reason codes using this task before you first run a Net Change [MRP](#).

**Caution:** The first time you use this task, you must select **Update (F8)** to create the reason codes, even if you do not make any changes. Until you do so, the Net Change MRP run ignores all the triggers.

A [Net Change MRP run](#) is restricted to certain specified events which have taken place since the last [Net Change MRP run](#). Within the manufacturing system, whenever an event for which you have selected a reason code takes place, a [trigger](#) is created.

For example, if you select the reason code for [Production Order Triggers](#) and create an unplanned [production order](#), the software activates a [trigger](#) for the next [Net Change MRP run](#).

When you request a [Net Change MRP run](#), you can view the number of [triggers](#) set against each of your selected reason codes.

**Note:** The events listed below activate [triggers](#) for [MRP](#)-controlled items only.

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### **Sales Order Triggers**

Because [MRP](#) is restricted to planning of materials only, a [trigger](#) is only generated in exceptional cases, such as for sales orders where the ordered item is also an [MRP component](#). In these cases, any of the following generate a [trigger](#):

- Creating a sales order
- Changing the date of the sales order
- Changing the order quantity
- Adding order lines
- Deleting order lines

### **Unplanned Inventory Transactions Triggers**

If you make [sundry issues](#) and receipts, they force a change in the [demand](#) for materials and can generate [triggers](#).

### **Purchase Order Triggers**

If you order an [MRP](#) item outside of planned changes, or change the expected [supply](#) of materials, any of the following events can generate a [trigger](#):

- Creating an unplanned purchase order
- Changing the purchase order date
- Changing the order quantity

### **Production Order Triggers**

If you create an unplanned [production order](#) for an [MRP](#) item, any of the following events can generate a [trigger](#) for the ordered [style](#). If you order an [MPS item](#), any of the following events can generate a [trigger](#) for the [MRP components](#) only:

- Creating an unplanned production order
- Changing the production order date
- Changing the order quantity

Completing a [production order](#) can also generate a [trigger](#) for any [MRP](#) materials, if you issued less than the required quantity, or if you do not use all of the material.

### **Unplanned Issues and Receipts Triggers**

You may want to capture any materials issues above or below the planned quantity. This helps you identify and plan for any extra material required, or any surplus material you can then issue against another order.

You can capture the following [unplanned issues](#) and receipt changes:

- If you issue more materials than required
- Overriding the backflush quantities
- Completing a production order short, that is, where the quantity produced is less than the quantity ordered
- Completing or re-opening a production order when the quantity is over the planned quantity

## Net Change Reason Codes Maintenance Window

To display this window, select the [Net Change Reason Codes](#) task.

Use this window to maintain the [net change reason codes](#) for the [MRP](#) run. This window displays the code number and description for each [available](#) reason code.

**Note:** *The spare lines on this window are for the future development of new reason codes.*

### **Fields**

#### **Description**

Enter a new description for the reason code. You can use a maximum of 36 characters.

**Note:** *You cannot add a new description to the blank lines*

#### **Active**

This field determines whether changes to [supply](#) and [demand](#) create [triggers](#) for the events identified by the reason code.

Use these checkboxes as follows:

Unchecked - Not to create [triggers](#) for [supply](#) and [demand](#) changes for this group of events

Checked - To create [triggers](#) for [supply](#) and [demand](#) changes for this group of events

**Note:** *If you check this field against a reason code, you can change this setting to unchecked for an individual [Net Change MRP run](#). An individual [Net Change MRP run](#) ignores any [triggers set up](#) for the reason code. For more information, see the [Net Change Trigger Selection Pop-up](#) section in the *Material Planning Processing* chapter of this product guide.*

Select **Update (F8)** to save your changes.



### Run Material Planning [11/P3M]

Use this task to:

- Take all demand on top-level MRP items
- Compare the demand with the available supply and generate suggested demand where appropriate
- Display the supplies down to SKU level demand
- Compare the demands with supplies for lower level items

The software generates an [MRP Reporting Profile](#) report, which details the run dates and the reporting periods for the [planning model](#).

At the end of the run, you can review and action [MRP's](#) suggestions.

#### **Prerequisites**

For each [style](#) you want [MRP](#) to consider, you must have defined:

- A planning route for the style using the Styles task
- A list of materials on the planning route using the Route/Bill of Material task

In addition, make sure you define your calendars to cover the duration of the review.

**Caution:** You should define all manufactured items as MPS items and all purchased items as MRP items. The software does not prevent you from breaking this rule. If you do, the Review Capacity task does not include the production load for wrongly coded items and recommendations for actions on wrongly coded purchased items are generated during the MPS run, not the MRP run.

### MRP Model Selection Window

To display this window, select the Run Material Planning task.

Use this window to enter the [planning model](#) for which you want to run [MRP](#).

**Note:** If you have not defined a [planning route](#) or materials for a [style](#), the [MRP](#) run does not include any [supply](#) or existing [production orders](#) for the [style](#).

## **Fields**

### **Planning Model**

Enter the [planning model](#) to run

Alternatively, use the prompt facility to select from the Select Base Model pop-up.

If you want to confirm any planning suggestions, this must be the [planning model](#) defined in the [company profile](#).

The [stockrooms](#) you define on the selected model determine the scope of the material plan. The [reporting profile](#) defines how the information is presented on reports and enquiries. The software only plans for items with defined item and [stockroom](#) relationships within the selected model.

Press Enter to display the [MRP](#) Run Details Selection window.

## **MRP Run Details Selection Window**

To display this window, press Enter on the [MRP](#) Model Selection window.

Use this window to select the type of [MRP](#) run you require and to enter a [start date](#) and end date. By default, this window displays the current date and end date from the last [MRP](#) run and the selected [planning model](#) and associated [production calendar](#).

## **Fields**

### **MRP Run Type**

Select one of the following:

[Regenerative](#) (1) - To run [MRP](#) for all items within the [planning model](#)

**Note:** *As this can take a long time to run, we suggest you schedule a [regenerative](#) run over the weekend.*

Net Change (2) - To run [MRP](#) for those items with changes to their [demand](#) or [supply](#) since the last [MRP](#) run

Select **Review Selection (F16)** to display the Net Change [Trigger](#) Selection pop-up, from which you can de-select [trigger](#) reason codes.

Selective (3) - To run [MRP](#) only for those items in the [planning model](#) that are within the selection parameters defined

Select **Review Selection (F16)** to display the Enter Selection Criteria pop-up, from which you can define your selection.

### **Include Suggested MPS**

This field is only [available](#) for a [regenerative](#) run.

Use this checkbox as follows:

Unchecked - To exclude [MPS](#) suggested orders

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Checked - To include [MPS](#) suggested orders

The setting of this field is retained after the [MRP](#) run. The value is retrieved each time the task is selected. This stored value will then automatically become the default for that run unless changed by the user.

### **Current Date**

This field is the live date for the plan. The [start date](#) and frozen period ([Time Fence](#) Days) are calculated from this date. The run ignores any orders before this date. The [start date](#) is the current date less overdue days.

### **Overdue Days**

This is the number of days of overdue [supply](#) and [demand](#) you want to consider. The accumulated [supply](#) and [demand](#) for this period are displayed in the Overdue column on the [MRP](#) Enquiry Summary window.

### **Time Fence Days**

The period between the current date and the [time fence](#) date is fixed or frozen; that is, the run makes no recommendations for this period.

If you want to include a [time fence](#), enter the number of days.

### **Use Item Time Fence**

Use this checkbox as follows:

Unchecked - To use the value entered in the [Time Fence](#) Days field

Checked - To use the [production lead time](#) for each [style set up](#) via the [Styles](#) task

The [production lead time](#) is the time taken to produce an item from its immediate [components](#). If the [style](#) does not have a [production lead time](#), the [MRP](#) run uses the global default [Time Fence](#) Days setting.

### **Safety Horizon Days**

Enter the number of days' safety horizon. This extends the end date to make sure all the [generated demand](#) is included in the lower level analysis.

### **End Date**

Enter the last date for the run. To include a safety [lead time](#), enter a value in the Safety Horizon Days field.

To use a [cumulative lead time](#) for each [style](#) plus a safety [lead time](#), **check** the Use Item End Date field.

### **Use Item End Date**

Use this checkbox as follows:

Unchecked - To use the global default end date

Checked - To use the [cumulative lead time set up](#) in the [Styles](#) task

The [cumulative lead time](#) is the total [lead time](#) needed to produce an item, based on a full explosion of its [planning route](#). It includes any low level production items on the [route](#), and the purchasing [lead time](#) of materials and bought out [components](#). If the [cumulative lead time](#) is not [set up](#) for a [style](#), the [MRP](#) run uses the global default end date.

**Note:** For non-production items, the purchasing [lead time](#) is used for production and [cumulative lead times](#).

### Suppress Low Level Code Generation

Use this checkbox as follows:

Unchecked - If you want to generate the [low level codes](#)

This is the default if you have made changes to the [planning routes](#).

Checked - If you do not want to generate the [low level codes](#)

This is the default if you have not made changes to the [planning routes](#).

If you run the Generate [Low Level Codes](#) task before running [MRP](#), you can suppress the [low level code](#) generation here.

**Caution:** Only suppress the generation of the codes if you are sure that the planning process will not be compromised by the lack of up-to-date data on planning routes.

## Functions

### Review Selection (F16)

If you selected **Net Change** in the [MRP](#) Run Type field, use this to review the net change [triggers](#) using the Net Change [Trigger](#) Selection pop-up.

If you selected **Selective** in the [MRP](#) Run Type field, use this to enter the items required on the Enter Selection Criteria pop-up.

### Print Details (F22)

Use this to print the run parameters without starting an [MRP](#) run.

Select **Start Run (F8)** to submit the batch job to start the [MRP](#) run. The software automatically produces a report detailing the parameters set for the run.

## Net Change Trigger Selection Pop-up

To display this pop-up, select Net Change in the [MRP](#) Run Type field and then select **Review Selection (F16)** on the [MRP](#) Run Details Selection window.

Use this window, for a [net change MRP run](#) only, to view the number of unprocessed [triggers](#) set by each [net change reason code](#) and the total number of [styles triggered](#). You can also select the [trigger](#) types you want the [net change MRP run](#) to process.

This window displays a list of the [trigger](#) reason codes and descriptions. If you have set the [trigger](#) for a reason code to inactive, it cannot be processed and is not displayed on this window. For more

information, see the [Net Change Reason Codes](#) Maintenance Window section in the Material Planning Maintenance section of this product guide.

### **Fields**

#### **Select (Sel)**

Choose **Select** against a reason code to include all [triggers](#) covered by the reason code in the [net change MRP run](#).

#### **Trigger Reason**

This field displays the [trigger](#) reason code.

#### **Description**

This field displays the text description for the [trigger](#) reason code.

#### **Unprocessed Triggers**

This field displays the number of unprocessed [triggers](#).

### **Functions**

#### **Select All (F18)**

Use this to select all the [available](#) reason codes and therefore all the unprocessed [triggers](#).

Press Enter to validate the changes and display the [MRP](#) Run Details Selection window.

## Enter Selection Criteria Pop-up

To display this pop-up, select Selective in the [MRP](#) Run Type field and then select **Review Selection (F16)** on the [MRP](#) Run Details Selection window.

**Note:** You can also access this window by selecting **Additional Parameters (F14)** on the [MRP](#) Schedule Report and [MRP Planner](#) Action Report windows.

Use this window to define the items to include in the [MRP](#) run or reports.

You can define all the selection parameters, except the [Value/Usage](#) Class, which are in the [Styles](#) task. You define value and [usage](#) classes, by [stockroom](#), in [Style](#) Inventory Management.

**Note:** If you intend to process all [MRP](#) items, carry out a [regenerative MRP](#) run instead by selecting [Regenerative](#) in the [MRP](#) Run Type field on the [MRP](#) Run Details Selection window.

### **Fields**

#### **Style/To**

Enter a range of [styles](#). Leave these fields blank to include all [styles](#).

You can use the prompt facility on these fields to select from the Select Item pop-up.

#### **Planner/To**

Enter a range of [planners](#). Leave these fields blank to include all [planners](#).

You can use the prompt facility on these fields to select from the PLAN [Planner](#) Code pop-up.

### **Style Group/To**

Enter a range of minor product groups. Leave these fields blank to include all minor product groups.

You can use the prompt facility on these fields to select from the PGMN Product Group - Minor pop-up.

**Note:** You use minor product groups to group [styles](#) into product families for sales and [stock forecasting](#).

### **Value/Usage Class/To**

Enter a range of value and [usage](#) classes. Leave these fields blank to include all values and [usage](#) classes.

### **Preferred Supplier/To**

Enter a range of preferred [suppliers](#). Leave these fields blank to include all [suppliers](#).

### **Fabric Type/To**

Enter a range of [fabric types](#). Leave these fields blank to include all [fabric types](#).

Press Enter to save the information and return to the previous window.

## Confirm Suggested Orders [12/P3M]

Use this task to confirm selected or all suggested orders. Once you have confirmed the orders, all future [MRP](#) runs include these orders.

If you have coded your items as recommended, that is, manufactured items as [MPS](#) and purchased items as [MRP](#), you should not need to use this task from within [MRP](#).

**Note:** If you set the Allocation of Materials At field to Confirm (allocate at order confirmation) in the [company profile](#), the software automatically allocates material for the [production orders](#) when you confirm them.

## MRP Confirmation of Suggested Orders Window

To display this window, select the Confirm Suggested Orders task.

Use this window to select a range of dates and [planners](#) whose orders you want to confirm.

### **Fields**

### From Start Date/To Start Date

Enter or select the range of [start dates](#) you want to include. Leave these fields blank to include all dates.

**Note:** *If you enter a date, it must be within the date range of the last [MRP](#) run.*

### From Planner/To Planner

Enter the range of [planners](#) for which you want to include orders. Leave these fields blank to include all [planners](#).

You can use the prompt facility on these fields to select from the PLAN [Planner](#) Code pop-up.

Work Order Planning Level

Enter a work order planning level. Alternatively, use the prompt facility to select from the WORL Production [Works Order](#) Level pop-up.

This field can be set to **0**, **1** or **2** to display orders suggested at [style](#), [colour](#) or full product respectively.

All Levels

Alternatively, this field can be set to **Yes**, which displays ALL suggestions, each at the production level view set for its item. The order creation and flagging window then shows additionally the [colours](#) or [SKU](#) details respectively for suggestions generated for items with [production order](#) levels **1** or **2**.

Press Enter to display the Confirm Orders window.

## Confirm Orders Window

To display this window, press Enter on the [MRP](#) Confirmation of Suggested Orders window.

Use this window to select the orders you want to confirm and to submit a batch job to mark all selected orders as confirmed orders.

This window displays all [suggested production orders](#) that meet the selection parameters entered on the [MRP](#) Confirmation of Suggested Orders window.

### Fields

#### Model (in Heading)

This field displays the model code.

#### Start Date Range/To

This field displays the [start date](#) range.

#### MRP Start

This field displays the [MRP start date](#).

### **MRP End**

This field displays the [MRP](#) end date.

### **Select (Sel)**

Select one of the following:

0 or Blank - If you do not want to confirm this order

1 (default) - To confirm an order

### **Start**

This field displays the [start date](#).

### **Quantity**

This field displays the quantity.

### **Item**

The field displays the item.

### **Description**

This field displays the item text description.

Select Update and **Submit Job (F8)** to submit the batch job to confirm all the selected orders.

## Review MRP [13/P3M]

Use this task to review the results of an [MRP](#) run. For a live [planning model](#), you can create and maintain actual [supply](#).

## MRP Enquiry Model Selection Window

To display this window, select the Review [MRP](#) task.

Use this window to select the model for which you want to review the [MRP](#) details.

### **Fields**

#### **Planning Model**

Enter the [planning model](#) you want to review.

Alternatively, use the prompt facility to select from the Select Base Model pop-up.

Press Enter to display the MRP Enquiry Selection window.



## MRP Enquiry Selection Window

To display this window, press Enter on the MRP Enquiry Model Selection window.

Use this window to enter a material, a [planner](#) and a date range.

**Note:** *You do not need to complete any of the fields on this window.*

### Fields

#### Select Item

You can optionally enter a material.

**Note:** *If there is no detail [available](#) for the selected material, the MRP Enquiry Summary window is displayed.*

#### Planner

You can optionally enter a [planner](#), as [set up](#) under Production Details within the [Styles](#) task.

Alternatively, use the prompt facility to select from the PLAN [Planner](#) Code pop-up.

#### Date Last Planned From/To

Enter a range of dates to display materials that were last planned within a specific date range. The default is the run date of the last [MRP](#) process.

**Note:** *If you enter a [style](#) or material in the Select Item field, leave these fields blank.*

Press Enter to display the MRP Enquiry Detail window.

## MRP Enquiry Detail Window

To display this window, press Enter on the MRP Enquiry Selection window.

This window displays a summary of all [supply](#) and [demand](#) details for a material, including recommendations and time-projected inventory [balances](#). This window displays, for each [demand](#) or [supply](#), the quantity, status, order number, and action.

**Note:** *For more details on the status codes, see the [Demand](#), [Supply](#) and Action Codes section in the Module Overview chapter of this product guide.*

The [MPS Item](#) field shows whether or not the item is [MPS](#): 0 for an [MRP](#) item or 1 for an [MPS item](#).

If a [production order](#) suggestion exceeds the [maximum order quantity](#) defined for a material, the [production order](#) is highlighted.

The [demand](#) does not include [stock forecasts](#), but there may be a [supply](#) order which is scheduled to provision the stock level defined in the forecast. This stock is additional to [safety stock](#), so the quantity [available](#) reflects the [stock forecast demand](#). Use [stock forecasts](#) as an additional hedging technique, to amend the desired stock level by week.

The date displayed is:

- For dependent demand, the required date and reflects a higher level MPS demand

- For independent demand, the forecast due date, or sales order shipment date
- For a supply, either the MPS recommended due date or the current date of the order
- For supplies with no recommended date change, the sequence remains the same.

**Note:** If the date is 99/99, this is a zero [demand](#), with an existing [supply](#).

For [MRP](#) recommended due date sequence, the [Available](#) figure is the [planned available stock](#), and shows the [MRP supply](#) recommendations. Since [MRP](#) aims to protect the defined [safety stock](#) level, the [balance](#) normally shows the [safety stock](#).

For the current date sequence, the current [supply](#) schedule is shown as quantities and due dates and the [Available](#) figure is the resultant availability against [demand](#). It is calculated for each day that a [demand](#) or [supply](#) line is present and represents the [style](#) phased projected inventory level.

**Note:** The software always generates [dependent demand](#) from higher-level recommendations and represents the [MPS](#) suggested schedule. This does not change when you change the [supply](#) sequence.

## **Fields**

### **Planning Model**

This field displays the selected [planning model](#).

### **Start**

This field displays the [start date](#).

### **Time Fence**

This field displays the [time fence](#).

### **End**

This field displays the end date.

### **Item**

This field displays the selected item code along with its description.

### **MPS Item**

This field displays **0** for an [MRP](#) item and **1** for an [MPS item](#).

### **MRP Date**

This field displays the [MRP](#) date.

### **Demand Order**

This field displays the order number.

### **Demand Quantity**

This field displays the quantity.

### **Demand Status**

This field displays the [demand](#) status.

### Supply Order

This field displays the order number.

### Supply Quantity

This field displays the quantity.

### Supply Status

This field displays the [supply](#) status.

### Supply Action

This field displays the action.

### Available

This field displays the quantity [available](#).

## Options

**Note:** If no options are [available](#) against a line, it is an accumulated [demand](#) or [supply](#) on the first item.

### Maintain Supply

Use this to maintain the [supply](#).

This is only [available](#) for the live [planning model](#).

You can:

- Amend the details of an existing production order, using the standard Production Order Maintenance window
- Change the status of a suggested order to Planned or Confirmed.
- You can confirm multiple orders using the Confirm Suggested Orders task.
- Change a suggested purchase order
- You must enter the new due date and quantity.

### Peg Demand

Use this to display the review details for a parent that generated a particular [demand](#) against a material requirement.

The [demand](#) item must be a material requirement on a production [style](#) and have a [low level code](#) of 1 or greater. Use **Previous (F12)** to return to the originating item in a chain of pegging requests.

**Note:** You can only use this option for material items.

### Supply Breakdown

Use this to display the [variant](#) breakdown of the material in the Suggested W/O pop-up.

You cannot make any changes. If a material has no [variants](#), this option is not [available](#).

## **Demand Breakdown**

Use this to display a drill down of [demand](#).

## **Functions**

### **Refresh (F5)**

Use this to update the display.

### **Higher (F6)**

This is [available](#) from [Colour](#) and Full Product views, and changes the view and control to [Style](#) and [Colour](#) level respectively.

### **Lower (F7)**

This is [available](#) from [Style](#) and [Colour](#) views, and changes the view and control to [Colour](#) and Full product respectively.

### **Combine (F9)**

This summarises like [demand](#) for the same day, into one record on the window. The individual [demand](#) reference is lost and is replaced with text indicating that the [demand](#) has been combined.

### **Prv Item (F16)**

Use this to cause the display to move backward at the current viewing level until a change of [style](#) is encountered, when viewing resumes at the entry level.

### **Summary (F17)**

Use this to display the [MRP](#) Enquiry Summary window.

### **Header (F18)**

Use this to display the Header Details pop-up. This is only [available](#) for [Style](#) and Full Product levels.

### **Nxt Item (F19)**

Use this to cause the display to move forward at the current viewing level until a change of [style](#) is encountered, when viewing resumes at the entry level.

### **Planner (F20)**

Use this to display the next [planner](#) in the sequence.

### **Chg Seq. (F21)**

Use this to toggle the display between details in [MPS](#) recommended due date sequence and current due date sequence.

### **Detail (F22)**

Use this to display more [demand](#) information for each [supply](#) and [demand](#) line.

The information displayed is:

- Additional Demand Information - Displays the style creating a particular generated demand for a material
- Additional Supply Information - Displays the current due date of the order and the earliest and latest start date
- For purchased orders, it shows the receipt date, which can be the due date, promised date or expected date, whichever is the greatest.

Select **Exit (F3)** to leave the task.

## Suggested W/O Pop-up

To display this pop-up, select [Supply](#) Breakdown against a [supply](#) order on the MRP Enquiry Detail window.

This pop-up displays the breakdown of quantities for each [variant](#) of the [style](#).

**Note:** *You cannot change any of the information on this pop-up.*

Select **Previous (F12)** to return to the MRP Enquiry Detail window.

## MRP Enquiry Summary Window

To display this window, select **Summary (F17)** on the MRP Enquiry Detail window.

This window displays a summary of the item [supply](#) and [demand](#) schedule, using the reporting periods defined for the [planning model](#). The opening and [safety stock](#) are displayed. The window also shows inventory and production details defined for the item.

This displays the quantity overdue, at specific dates, and the total quantity of:

- Actual demand
- Forecast
- Adjusted demand
- Supply
- Available
- Net requirement
- Planned receipt and available

**Note:** *If you cannot see all the period details, use Page Up and Page Down to display the next and previous period details.*

### **Fields**

#### **Planning Model**

This field displays the selected [planning model](#).

**Start**

This field displays the [start date](#).

**Time Fence**

This field displays the [time fence](#) date.

**End**

This field displays the end date.

**Item**

This field displays the selected item code and text description.

**MPS Item**

This field displays **0** for an [MRP](#) item and **1** for an [MPS item](#).

**Planner**

This field displays the selected [planner](#).

**Product Group**

This field displays the selected product group.

**UOM**

This field displays the [unit of measure](#).

**GT Family**

This field displays the GT family.

**Last Planned**

This field displays the last planned date.

**Order Policy**

This field displays the [order policy](#).

**Type**

This field displays the order type.

**Production Seq**

This field displays the production sequence.

**Lead Time**

This field displays the [lead time](#).

**Opening Stock**

This field displays the opening stock [balance](#).

**Safety Stock**

This field displays the [safety stock balance](#).

**Avg. Wkly Usg**

This field displays the average weekly [usage](#).

**Supplier**

This field displays the [supplier](#).

**Fixed Qty**

This field displays the fixed quantity.

**Min. Batch**

This field displays the minimum batch quantity.

**Max. Batch**

This field displays the maximum batch quantity.

**Multiples**

This field displays the multiples quantity.

**Actual Dem**

This field displays the actual [demand](#) quantities overdue and for specific dates.

**Forecast**

This field displays the forecast quantity overdue and for specific dates.

**Adj. Demand**

This field displays the adjusted [demand](#) quantities overdue and for specific dates.

**Supply**

This field displays the [supply demand](#) quantities overdue and for specific dates.

**Available**

This field displays the [available](#) quantities overdue and for specific dates.

**Net Reqmt**

This field displays the net requirement quantities overdue and for specific dates.

**Plan Recpt**

This field displays the planned receipt quantities overdue and for specific dates.

**Plan Avail**

This field displays the [planned available](#) quantities overdue and for specific dates.

**Functions****Prv Item (F16)**

Use this to display the previous material in the sequence.

**Detail (F17)**

Use this to display the MRP Enquiry Detail window.

**Header (F18)**

Use this to display the Header Details pop-up. This is only [available](#) for [Style](#) and Full Product levels.

**Nxt Item (F19)**

Use this to display the next material in the sequence.

**Next Planner (F20)**

Use this to display the next [planner](#) in the sequence.

Select **Exit (F3)** to leave the task.

## Header Details Pop-up

To display this pop-up, select **Header (F18)** on the MRP Enquiry Detail window or the MRP Enquiry Summary window.

This pop-up displays inventory and production details for the parent [style](#) selected.

These details include:

- The order and lead time policies
- The fixed, minimum and maximum quantities
- Physical and safety stock levels

### **Fields**

**Planner**

This field displays the [planner](#).

**UOM**

This field displays the [unit of measure](#).

**Order Policy**

This field displays the [order policy](#).

**Item Type**

This field displays the [item type](#).

**Supplier**

This field displays the [supplier](#).

**Fabric Type**

This field displays the [fabric type](#).



**Item Group**

This field displays the item group.

**Physical Stock**

This field displays the [physical stock](#).

**Safety Stock**

This field displays the [safety stock](#).

**Lead Time**

This field displays the [lead time](#).

**Value/Usage Class**

This field displays the [value/usage](#) class.

**Delivery Days Basis**

This field displays the delivery days basis.

**Date Last Planned**

This field displays the last planned date.

**Fixed Qty**

This field displays the fixed quantity.

**Minimum Qty**

This field displays the minimum quantity.

**Maximum Qty**

This field displays the maximum quantity.

**Multiples**

This field displays the multiples quantity.

**Delivery Lead Time**

This field displays the delivery [lead time](#).

Select **Previous (F12)** to return to the previous window.



# Material Scheduling Report [21/P3M]

This report produces a full listing of the material requirements plan so that you can review and evaluate it.

## MRP Schedule Report Window

To display this window, select the Material [Scheduling](#) Report task.

Use this window to select the [planning model](#) and planning date range you want to include in the report.

### Fields

#### **Model**

Enter the [planning model](#)

Alternatively, use the prompt facility to select from the Select Base Model pop-up.

#### **Date Last Planned/To**

Enter or select the date range for the plan

Only items planned during the date range are included on the report.

#### **Print Items with No Details**

You can decide whether to include items for which there is no [supply](#) or [demand](#).

Use this checkbox as follows:

Unchecked - If you only want to include items with a [supply](#) or [demand](#)

Checked - If you want to include items with no [supply](#) or [demand](#)

Planning Level

Select one of the following:

[Style](#) Level (1) - To report at [style](#) level

Default Planning Level (3) - To report at default planning level

## **Functions**

### **Additional Selection (F14)**

Use this to display the Enter Selection Criteria pop-up.

Press Enter to generate a Material Plan report.

## **Enter Selection Criteria Pop-up**

To display this pop-up, select **Additional Selection (F14)** on the MRP Schedule Report window.

Use this pop-up to enter selection criteria for the report.

## **Fields**

### **Style/To**

Enter a range of [styles](#) to restrict the report.

You can use the prompt facility on these fields to select from the Select Item pop-up.

### **Planner/To**

Enter a range of [planners](#) to restrict the report.

You can use the prompt facility on these fields to select from the PLAN [Planner](#) Code pop-up.

### **Style Group/To**

Enter a range of [style](#) groups to restrict the report.

You can use the prompt facility on these fields to select from the PGMN Product Group - Minor pop-up.

### **Value/Usage Class/To**

Enter a range of values and [usage](#) classes to restrict the report.

### **Preferred Supplier/To**

Enter a range of [suppliers](#) to restrict the report.

### **Fabric Type/To**

Enter a range of [fabric types](#) to restrict the report.

### **Report Sequence**

You can sequence your report by entering up to three sequence fields. Enter **1** against the primary report sequence, then **2** and **3** against the minor sequences.

For example, to produce a report showing items in value and [usage](#) class sequence within [planner](#) responsibility, enter **1** alongside [Planner](#) and **2** alongside [Value/Usage](#) Class.

Press Enter to save the information and return to the MRP Schedule Report window. Press Enter to generate the report.

---

## Recommendation Report [22/P3M]

This report produces a summarised action list of recommended changes to [supply](#) in the [planning model](#).

You can use this report to highlight overdue supplies, that is, [production orders](#) with a due date earlier than the current date.

### MRP Planner Action Report Window

To display this window, select the Recommendation Report task.

Use this window to enter the parameters for the Recommendation report.

#### **Fields**

##### **Model**

Enter the [planning model](#)

Alternatively, use the prompt facility to select from the Select Base Model pop-up.

##### **Planner Action Review/To**

This is established by review period. Enter or select the earliest and latest [start dates](#) to include in the report.

##### **Include Overdue Orders**

You can include details of orders with a due date earlier than the current date.

Use this checkbox as follows:

Unchecked - Not to include overdue orders

Checked - To include orders with a due date before the current date

##### **Detail Level**

Select one of the following:

[Style](#) / Material Group (1) - To report at [style](#) and material group level

Full Product (2) - To report at full product detail level

Print Prior Values

Use this checkbox as follows:

Unchecked - To not print prior values

Checked - To print prior values

#### **Functions**

**Additional Selection (F14)**

Use this to display the Enter Selection Criteria pop-up, which you use to select the range of [styles](#) to include in the report.

Press Enter to submit the batch job to generate the Recommendations report.

## Valuation Report [23/P3M]

Use this task to produce a [MRP](#) Valuation report.

The report assesses the inventory and purchase order commitment of a proposed [production schedule](#) in standard or [current cost](#) terms. The selected schedule is translated from a quantitative plan by extending quantities by the [unit cost](#) of items.

You can select which elements of [cost](#) to include in the [unit cost](#) and you can include [cost elements](#) which are excluded from the normal [cost](#) by default. In addition, you can increase any [cost](#) element by a specified percentage (uplift).

## MRP Valuation Report Window

To display this window, select the Valuation Report task.

Use this window to select the parameters for the Valuation report.

**Fields****Model**

Enter the [planning model](#)

Alternatively, use the prompt facility to select from the Select Base Model pop-up.

**Basis**

This is the basis used to round the [cost](#) values.

Select one of the following:

One Thousands (3) - To round to the nearest thousand

Ten Thousands (4) - To round to the nearest ten thousand

Hundred Thousands (5) - To round to the nearest hundred thousand

Millions (6) - To round to the nearest million

**Detail Level**

Select one of the following:

Summary (1) - To print calculated total model information only

Detail (2) - To include detail item values in the report

### Costing Method

Select one of the following:

Standard [Cost](#) (1) - To [cost](#) using the [standard costs](#) from the specified [cost](#) set

[Cost](#) Set (2) - To [cost](#) using non-[standard costs](#) from the specified [cost](#) set

### Cost Set

If you selected [Cost Set](#) in the [Costing Method](#) field, enter the [cost](#) set to use for the calculations.

### Select MRP Item Types

Select one of the following:

Manufactured (1) - To include only production items ([item type M](#))

Purchased (2) - To include only purchased items ([item types P](#) (purchased materials), **B** (bought out [components](#)) and **C** (consumable tools))

Both (3) - To include all items

Select **Submit Job (F8)** to generate the report.

## Reporting Profile [24/P3M]

Use this report to print the profile details for a selected model.

## Print MRP Reporting Profile Window

To display this window, select the [Reporting Profile](#) Report task.

Use this window to select the model for which you want to produce the report.

### Fields

#### Model

Enter the model for which you want to produce the report.

Alternatively, use the prompt facility to select from the Select Base Model pop-up.

Press Enter to submit the job and display the Print [MRP Reporting Profile](#) Confirmation window.

## Print MRP Reporting Profile Confirmation Window

To display this window, enter a model and press Enter on the Print [MRP Reporting Profile](#) window.

This window displays the report confirmation.

Select **Exit (F3)** to leave the task.

## Log History Report [25/P3M]

This report prints [MRP](#) run information, which you can use to decide whether to carry out a [Net Change MRP run](#) or a full [MRP](#) run. If you need to process a large number of [styles](#), it could be more efficient to perform a full regeneration. This report includes the actual times of [MRP](#) runs and their modes.

The report lists the following [MRP](#) run information:

- Start date and time
- End date and time
- Run time and type
- Styles triggered
- MRP and MPS styles processed
- Total styles processed

## MRP Log History Selection Window

To display this window, select the Log History Report task.

Use this window to select the model and date on which you want to report.

### **Fields**

#### **Planning Model**

Enter the [planning model](#)

Alternatively, use the prompt facility to select from the Select Base Model pop-up.

#### **From Date**

Enter or select the date from which you want to start the report.

Press Enter to validate your entries and generate the [MRP](#) Log History report.



---

# Appendix A Glossary



## **Active Production Order**

A [production order](#) which has associated [work-in-progress](#)

## **Activity Types**

These are user definitions of activities to be reported. [Activity types](#) can be system dependent or user-defined. System dependent [activity types](#) are mandatory for the system to function. You may define user-defined [activity types](#) to suit your requirements. [Activity types](#) are linked to a System21 reporting type that defines how the activity effects updates to the database.

## **Advanced Financial Integrator**

This processes transactions generated by production [bookings](#), using user-defined Journal rules, to create auditable General Ledger account postings for production activities.

## **Advice Note**

A document received from a subcontractor giving details of goods delivered

## **AFI**

An acronym for [Advanced Financial Integrator](#)

## **Allocated Stock**

This is the quantity of a [style](#) or material that is allocated to customer orders or [production orders](#). This quantity is expressed as a [balance](#) at both item/[stockroom](#) level and item/[stockroom](#)/lot level.

## **Allocations**

This is inventory currently reserved against a [production order](#). [Allocations](#) can change and an allocated material may become [available](#) again and then allocated to another [production order](#). [Style](#) uses [allocations](#) to calculate how much material is currently [available](#).

## **Alternative Material**

This is a material nominated as an alternative for a material used in production, when stock of the original material is insufficient. You can issue [alternative material](#) in whole or part to a [production order](#).

## **Amortised Fixed Costs**

This is a method of spreading fixed production [costs](#) over a designated batch size to ascertain the effect on unit product [costs](#) of the economies of scale production. See also [Fixed Costs](#).

## **Archived Production Orders**

These are [production orders](#) which have been saved in an archive file and removed from the live order database. They are [available](#) for detailed enquiry.

**Automatic Batch Allocation**

This is the process of allocating batches/lots of materials against a [production order](#). The allocation is done by grouping together a number of batches according to a common identification code.

**Available**

This is the quantity calculated by Planning to represent current availability on a given day equal to previous period [available](#) + [supply](#) – [demand](#).

**Available Stock**

This is the quantity calculated by subtracting [allocations](#) from the [physical stock balance](#). It represents uncommitted inventory which may be used to satisfy production [demand](#).

**Average Cost**

This is a [costing method](#) employed by [Style](#) Inventory Management, whereby the weighted average [unit cost](#) of an item is recalculated every time a stock receipt is made.

**Average Usage**

This is the [average usage](#) per week/period of an item in a [stockroom](#). The weeks or periods which are included in this calculation are defined by the [usage profile](#).

**Backflush**

This is the automatic generation of standard material issues based on production quantities reported. This is usually done for low [cost](#) materials. For example, a shirt has 7 buttons. If you make 100 shirts, you require 700 buttons. Instead of counting out the buttons, you can make a [backflush](#) issue from a [bucket](#) of 1000. When the [operation](#) is complete, [Style](#) accounts for taking 700 buttons out of stock automatically.

**Backflush Item**

An item that is designated to be automatically issued in production recording

**Backflushed Operation**

A [backflushed operation](#) is a non-[count point operation](#). The [operation](#) gets booked in automatically at the next [count point operation](#).

**Backschedule**

The calculation of [operation](#) and order [start dates](#) from the due date, using the [lead time](#) elements of the [operations](#)

**Balance**

This may be used either to signify a database record holding summary information, such as a [stockroom balance](#), or a single summary quantity field on such a record, such as [allocated stock](#).

**Batch Control**

See [Lot Control](#).

**Bill of Material**

The definition of the materials that are required to make a product

**BOM**

Acronym for [Bill of Material](#)

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## Booking

[Work-in-progress](#) reporting

## Booking History

A record of all material and production transactions posted during the progress of a [production order](#)

## Bottleneck

This term is generally used to refer to a position on a production line where the production flow is constrained in some way. This can lead to build-ups of work and potentially have an adverse effect on the [efficiency](#) of a line or plant, and ultimately on profitability.

## Bucket

In [MPS](#) and [MRP](#), the period of time for which [supply](#) and [demand](#) are summarised for presentation

## Bucketless

This describes the [MPS/MRP](#) review process, which [balances supply](#) and [demand](#) on the date it is scheduled, rather than accumulating it into greater time periods.

## Budget Capacity

This is the [capacity](#) of a [machine](#) that is compared with its [load](#). It represents the [capacity](#) you expect to obtain from a [machine](#). This can be 100% of stated [capacity](#) or a factor above or below 100% (see [Standard Capacity](#)).

## Bundle Ticket

This is a document printed by Production Control that is attached to a bundle on the factory floor. It has barcoded stubs which can be wanded in directly by the operator or are attached to the operator's timesheet. It identifies the [production order](#), [style](#), [colour](#), size and quantity to be processed.

## Bundle Tracking

This is the method of identifying the stage that a bundle has reached in the production process. In addition, the processes that have been completed are also identified.

## Bundling-Up Point

This is an [operation](#) at which the materials are bundled together, prior to the issuing of [bundle tickets](#).

## Cancelled Production Order

This is a [production order](#) which has been aborted, and cannot be reopened.

## Capacity

This is the amount of time that a [machine](#) or [work centre](#) or [labour](#) skill or [labour department](#) is [available](#) for work in a given period.

## Capacity Planning

This is the option of calculating [machine](#) and [labour capacity requirements](#) by comparison of duration for planned work with the [capacity available](#) for the planning period. The work schedule or the [capacity](#) may then be adjusted to obtain a [balanced](#) workflow.

## Capacity Requirement

The time required at a [machine](#) (or for a [labour](#) skill) by a particular piece of work

**Characteristic**

[Characteristics](#) are related to the [dimensions](#) you define for a [style](#) or material. For example, if you define [colour](#) as a [dimension](#), then red, black and blue might be [characteristics](#) of that [dimension](#).

**Characteristic Mix**

These are the rules that determine the level of detail that exists for a bundle - single [colour](#), unknown size, single size, unknown [colour](#), single [colour](#), single size.

**Colour**

Throughout [Style](#) Production, [colour](#) generally refers to the [colour](#) code you may have specified for a [style](#) under the [Style](#)/Material Details activity.

**Company Profile**

This is a collection of control parameters specific to a Production company.

**Completed Production Order**

These are [production orders](#) which have been completed. They cannot have [bookings](#) made against them. They may be reopened for further processing.

**Component**

Any item that is used in the production of another item

**Confirmed Production Order**

A [production order](#) with a firm commitment to produce an item, which cannot be changed in date or quantity except by explicit [planner](#) intervention

**Cost**

This is a value associated with an item in a [stockroom](#), or a movement. It is usually a value related to a single item (a [unit cost](#)), but may refer to a quantity of items (a movement [cost](#) or value).

**Cost Centre**

This is a functional or organisational area defined for the purposes of defining production [costs](#). Each [cost centre](#) defines standard rates for [labour](#), [machine](#), [set up](#) and overheads. A [cost centre](#) is assigned to a [machine](#) and is used to calculate all standard production [costs](#) associated with that [machine](#).

**Cost Elements**

15 [cost elements](#) are [available](#) to analyse [costs](#). These are: fabric, trim, packaging, [labour](#), [machine](#), [set up](#), subcontract, variable overhead 1, variable overhead 2 (variable), overhead 2 (fixed), user-defined 1-4 and wastage.

**Cost Roll-up**

This is the method of generating product [costs](#) by calculating and accumulating [costs](#) of materials and [operations](#) required at each level of manufacture.

**Costing Method**

This refers to the method used to establish a [cost](#) for [stock movements](#) or stock [balances](#). The methods [available](#) are latest, average, standard and [FIFO](#) (First In First Out).

**Costing Route**

The [route](#) designated for an item to calculate its [unit cost](#) within a [stockroom](#)

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### Count Point

This is an [operation](#) at which [WIP inventory](#) is counted or reported. A [count point operation](#) helps to identify how the [production order](#) is progressing.

### Creation Date

The date on which a [production order](#) is entered

### Cumulative Lead Time

This is the amount of time required to produce an item from scratch. It is based on a full explosion of the bills of material of the item and its sub-assemblies and includes the purchasing [lead time](#) of raw materials.

### Current Cost

This is a category of [cost](#). The application generates values for current and standard [cost](#) control. [Current cost](#) may be considered as the proposed standard [cost](#) for the next accounting period. See Standard [Cost](#).

### Current Date in Planning

This is the datum point of an [MPS/MRP](#) plan. The [start date](#) is determined by subtracting Overdue Days from this date. The [Time Fence](#) date is calculated from this date by adding the frozen [Lead Time](#).

### Demand

The forecast or actual requirement for an item

### Demand Policy

This is the policy which controls the comparison of [sales forecasts](#) with sales orders, and [dependent demand](#) to arrive at the [demand](#) to drive [MPS](#) or [MRP](#). This may be: no forecast, [independent demand](#) only, dependent and [independent demand](#), [dependent demand](#), make to forecast only or total [demand](#).

### Department

This is a collection of [labour skills](#) that have been grouped together for [capacity requirement](#) analysis purposes. [Departments](#) also define certain parameters to allow the calculation of [capacity](#), namely: standard hours per day; absenteeism rate, [utilisation](#) %; standard performance %

### Dependent Demand

[Demand](#) for an item which is derived from the manufacture of a parent

### Descriptions File

This is a file maintained within the [Style](#) Inventory Management application which defines a number of parameter codes and their descriptions.

### Dimension

A [style](#) always has at least one [dimension](#), which is the [style](#) itself. A [style](#) may have additional [dimensions](#), such as [colour](#), size and fit. Each [style](#) can have up to 4 [dimensions](#).

Materials such as fabric and trim may also have more than one [dimension](#).

### Direct Labour

Operatives used in production of an item in terms of performing work on [operations](#)

**Down Time**

This is the amount of time that a [machine](#) is out of action. The application provides the facility to record both planned and Actual [Down Time](#).

**Duration Calculation Basis**

This is the method by which the duration of an [operation](#) is calculated for [scheduling](#) purposes. This may be: [set up time](#) only; [machine time](#) + [set up time](#); [direct labour](#) time + [set up time](#); [machine time](#) + [direct labour](#) time + [set up time](#); greater of [machine time](#) or [direct labour](#) time + [set up time](#).

This can be set at [Company Profile](#), [Machine](#) or [Route Operation](#) level.

**Dye-lot Control**

See [Lot Control](#).

**Economic Order Quantity**

This is an optimum quantity of a [style](#) to be produced by a [style route](#) or supplied on an order. It may be entered for each [style route](#) and may be used as the basis of apportioning [fixed costs](#) for an item.

**Efficiency**

The ratio of standard to actual performance

**Efficiency Variance**

The difference between standard and actual performance in quantity and [cost](#) terms

**End Date (Planning)**

This is the last date to be considered by the run. It can be entered or calculated as Current Date plus item [cumulative lead time](#). It can be extended by setting a number of safety days.

**EOQ**

See [Economic Order Quantity](#).

**Exception Events**

Transactions which are likely to cause a change in the [supply](#) and [demand](#) status of an item

**Fabric Type**

Production classification used in [MRP](#) as a selection parameter for a Selective [MRP](#) run

**FIFO**

This is an acronym for First In First Out - one of the [costing methods available](#) in the [Style](#) Inventory Management application. Using this method, each stock receipt is valued at actual [cost](#), and issues are valued using these receipt batch [costs](#) on a First In First Out basis.

**Finished Goods Receipt**

This is the receipt of a quantity of a production item into an Inventory [stockroom](#), as a result of a [production order](#).

**Firm Planned Production Order**

This is a [production order](#) which remains under the control of the [planner](#) in terms of timing and quantity and is not recommended for change by Planning functions, unless [Planning Filters](#) are set to allow this.

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**Fixed Cost**

This is an element of item [cost](#) that does not vary with the volume of production. Fixed elements of [costs](#) are; [set up](#), fixed overhead, fixed user-defined [costs](#).

**Fixed Order Quantity**

This is an ordering policy used by [MPS](#) and [MRP](#) to control suggested replenishment orders. It is used to generate suggested supplies of a pre-defined size.

**Fixed Quantity Per**

Any material to a [bill of material](#) whose requirement will not vary with batch size

**Floor Stock**

This is inventory which is issued to a designated [floor stock location](#) (logical or [physical stockroom](#)) on the shop floor rather than directly for immediate consumption. [Floor stock](#) is consumed as it is used at a particular [operation](#).

**Floor Stock Location**

This is a logical or [physical stockroom](#) where items with a [Material Control Policy](#) of issue to [floor stock](#) are issued and consumed.

**Forecast Level**

This is the level at which forecasts can be maintained at; or the level to which a family forecast can be spread to. It is defined within the production Details of a [style](#). The [available](#) levels are: [style](#), [style/colour](#), [SKU](#) or full product.

**Frozen Stock**

This is the quantity of an item which is designated as 'frozen' and thus not [available](#) for issue or allocation. It is expressed as a [balance](#) quantity at item/[stockroom](#) level, or item/lot level.

**Generated Demand**

See [Dependent Demand](#).

**Goods Inward**

This is an area within a [warehouse](#) in which incoming materials are received, prior to being [put away](#) in their [warehouse](#) locations.

**Goods Receipt Note**

This is a document produced when receiving work back from a subcontractor which provides details of the goods received.

**GRN**

Acronym for [Goods Receipt Note](#)

**Gross Requirement**

The total [demand](#) for an item in a given time period before stock on-hand and supplies are netted

**Held Inventory Tracking**

This is a regimen imposed by the system to force entry of a reference code/description each time a [WIP](#) quantity is booked as 'held'. This reference may be for the whole booked quantity or specific to one or more items in the total quantity. Any further movements of [Held WIP Inventory](#) (for example, transfer or scrap) necessitate the specification of the held inventory reference.

**Held WIP Inventory**

This is [WIP inventory](#) which is not [available](#) to progress to the next [operation](#) until released from held status. This may be because it is awaiting quality control inspection or [rework](#).

**In Transit**

This is the quantity of an item which is currently [in transit](#) between two [stockrooms](#). It is expressed as a [balance](#) quantity at the target [item stockroom](#).

**Indented Bill of Material**

This is a multi-level explosion of an end item (finished product or [style](#)) or sub-assembly, showing all the levels of materials, each of which is displayed indented one position from its immediate parent.

**Indented Cost Roll-up**

This is a method of simulating the [cost](#) of an end item (finished product or [style](#)) or sub-assembly with reference to its [bill of material](#) and manufacturing [operations](#) at all levels, and then rolling up the [costs](#) of all its materials and [operations](#).

**Indented Where-Used**

This is the inverse of the [indented bill of material](#). It shows the parent item of a material. Each parent item is indented one position from the level below. The analysis can be multi-level, and identifies the parents, grandparents, great grandparents, etc., of a material.

**Independent Demand**

This is [demand](#) for an item originating from sales orders or forecasts. That is, direct [demand](#) for the item itself.

**Indirect Labour**

This is work performed in a factory that is not directly linked to the production of items, for example, cleaning, sweeping or polishing.

**Inventory Audit Record**

When a revaluation of Inventory takes place during a transfer of [standard costs](#) from Production, a control record is created for each [stockroom](#) revaluation.

**Item Group Minor**

This is a [Style](#) Inventory Management classification used in Production Forecasting to define the [product family](#) to which an item belongs.

**Item Stockroom**

This is the highest level at which [costs](#) and inventory [balances](#) are held. The item/[stockroom](#) record also defines stock management rules for an item in a [stockroom](#) used within [Style](#) Inventory Management.

**Item Type**

Within [Style](#) Production, [Item Type](#) classifies items into made items (manufactured or produced), bought out items, consumable tools and purchased items.

Use Production Details under the [Style](#)/Material Details activity to set the [Item Type](#) for a [style](#) or material to one of the following:

**M** - Production Items ([styles](#) or intermediates used in the production of a [style](#))



**P** - Purchased items (examples are materials such as lace, leather and silk)

**B** - Bought out items (examples are buttons, zips, hangers, suit covers and packaging materials such as boxes and labels)

**T** - Consumable tools (examples are knitting needles, blades and pins)

You can override [Item Type](#) for an individual [route](#) on [Style/Route](#) Override Maintenance window 2 under the [Style Route/Bill of Materials](#) activity.

Change [Item Type](#) descriptions through the PITP parameter under the Maintain [Parameter File](#) activity.

### **Key Material**

This is a specific material on a [route](#) that is used to control the lot [characteristics](#) of the finished product. Only one material per [route](#) may be defined.

### **Key Operation**

This is an [operation](#) on a [route](#) identified as a special progress point; used in various enquiries and reports to limit the number of [operations](#) shown. It can additionally be used to specify that non-stock purchase orders should be created for [subcontract operations](#).

### **Labour**

Work performed by operators

### **Labour Profile**

A [Labour Profile](#) defines a group of [labour skills](#) that work together in a team. It is linked to an [operation](#) on a [style route](#) to enable the calculation of [labour capacity requirements](#).

### **Labour Skills**

An operator's skill that is required to perform an [operation](#)

### **Labour Time**

The length of time required by an [operation](#) in terms of [labour](#)

### **Landed Costs**

These are [costs](#) in the receiving of purchased items. These are user-defined [costs](#) such as freight, carriage or insurance.

### **Latest Cost**

This is one of the [Costing Methods available](#) in the [Style](#) Inventory Management application. Using this method, each stock receipt is valued at actual [cost](#) and all issues are valued at this [cost](#). In addition, total inventory is valued at this [cost](#).

### **Lead Time**

This is the amount of time required to produce or procure a [style](#) or material. For production items, [lead time](#) is derived from the sum of the [lead times](#) of the individual [operations](#) required to produce the item and any sub-assemblies. [Lead time](#) also relates to procurement times for purchased items. See also Production and [Cumulative Lead Times](#).

### **Load**

This is the [capacity requirement](#) on a [machine](#) or [work centre](#) or [labour](#) skill or [labour department](#) in terms of time arising from an [operation](#) scheduled at that [machine](#) or against a [labour profile](#).

**Logical Stockroom**

This is a [stockroom](#) which does not physically exist but is used as a reference for the recording of [WIP inventory](#), or [floor stock](#). Recordings may be made to [physical stockrooms](#) if they exist; [logical stockrooms](#) are simply an alternative.

**Lot Control**

This is a level of stock control to ensure that fabric is issued out of a common batch, indicating that the fabric has been dyed in the same dye vessel. It is also referred to as [batch control](#), [dye-lot control](#), [piece control](#), [shade control](#), [roll control](#) and [merge](#).

**Lot Traceability**

Where stock control is specified at batch or lot level, this refers to the ability to trace the movement of stock at this detailed level.

**Low Level Code**

This is the lowest point in bills of material or [production orders](#) at which an item exists. It indicates the maximum level at which the item resides. It is used by [MRP](#) to determine when to plan the item in the fully exploded product sequence.

**Machine**

A piece of equipment upon which or with which work is performed, and [capacity requirements](#) are measured

**Machine Schedule**

A daily work plan for a [machine](#), containing item and order quantities and duration of [set up](#) and operating hours

**Machine Time**

The length of time consumed by an [operation](#) in terms of [machine](#) work

**Marshalling Area**

An area within a [warehouse](#) that stores materials temporarily when they have been [picked](#) from their [warehouse](#) locations but have not yet been sent out

**Master Production Schedule**

[MPS](#) calculates and [balances demand](#) and [supply](#) for master scheduled items, and generates a [production schedule](#) with suggested dates and quantities.

**Material Control Policy**

This parameter defines the method of item issues to production. This may be: formal issue, [backflush](#) or [floor stock](#) issue.

**Material Requirements Planning**

[MRP](#) calculates and [balances demand](#) and [supply](#) for purchased materials and lower level manufactured items and generates a suggested schedule for production and purchases, with suggested dates and quantities for actions.

**Material Route**

The [route](#) to be exploded in [indented bill of material](#) functions for identified materials to establish lower level materials

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### Material Type

This is a parameter used to determine an item's [material type](#). This may be: fabric, trim, packaging, fabric group, trim group or packaging group.

### Material Usage Policy

This is a parameter which determines how the material quantity is determined when an item is specified on a [bill of material](#). This may be: [quantity per](#) based or ratio based.

### Material Wastage

The planned or anticipated percentage of a quantity of material that will be unusable when it is issued to the production process

### Material Where-Used

The identification of where a material is used in assemblies and sub-assemblies

### Matrix Type

This is the display mode of the matrix for a [style](#), this can be: a maximum of 15 sizes with quantities up to 999; a maximum of 10 sizes with quantities up to 99,999; a maximum of 6 sizes with quantities up to 99,999.999.

### Maximum Capacity

The theoretical [capacity](#) of a [machine](#) in hours when working at its peak rate

### Maximum Capacity Factor

This factor may be applied to a shift profile to allow calculation of the maximum number of hours [available](#) at a [machine](#), if for example, the [machine](#) consists of several [machines](#) or multiple operators. For example, if the [machine](#) has a standard shift profile which defines 8 working hours per day, applying a factor of 3 would indicate that 3 x 8 (24) hours are [available](#).

### Maximum Order Quantity

This is a value set for an item to control the suggested [supply](#) batch sizes suggested by [MPS](#) and [MRP](#). It is an advisory parameter, and does not restrict the size of the suggested batch, but a warning is shown on the plan reports when a batch size exceeds it.

### Maximum Stock

This is the preferred [maximum stock balance](#) of an item in a [stockroom](#). This may be set manually for each item.

### Merge

See [Lot Control](#).

### Minimum Order Quantity

This is a control parameter set for an item to manage the suggested [supply](#) batch sizes recommended by [MPS](#) and [MRP](#). It ensures that a [supply](#) is never less than the defined minimum order value.

### Move Days

This is the length of time required to transport work or cool down or dry out after an [operation](#) has been performed and before the following [operation](#) can start. This is an element of inter-[operation](#) time.

**Movement Type**

This refers to the classification of movements by type of transaction, for example, [sundry receipts](#), customer order issues.

**MPS**

Acronym for Master Production [Scheduling](#)

**MPS Item**

This is an item which is under the [scheduling](#) and planning control of Master Production [Scheduling](#). It is typically an end product, critical sub-assembly, or [key material](#).

**MRP**

Acronym for [Material Requirements Planning](#)

**Multi-plant**

Use [multi-plant](#) planning to share the [load](#) between different plants or factories.

**Multiple Order Quantity**

This is a control parameter set for an item to control the suggested [supply](#) batch sizes recommended by [MPS](#) and [MRP](#). It defines the increments that are applied to a batch to meet a [demand](#) quantity. It sets a defined batch quantity and the ruling that a [demand](#) quantity must be supplied in whole batches of the set quantity. For example, [demand](#) equals 110, [multiple order quantity](#) equals 20, required equals  $110/20=5.5$ , which would convert to 6 batches.

**Net Change MRP Run**

A [net change MRP run](#) considers only those materials that have had any changes to their [demand](#) or [supply](#) since the last [MRP](#) run. A [net change MRP run](#) is shorter than a full [MRP](#) run and therefore allows you to run [MRP](#) more frequently.

**Net Change Reason Code**

Identifies the transactions that can generate [triggers](#) for [net change MRP runs](#)

**Net Demand**

[Net demand](#) equals gross [demand](#) less [available stock](#), adjusted by [demand policy](#) parameters.

**Net Requirements**

The difference between [net demand](#) due on a day and the total suggested supplies planned to be [available](#) on that day, adjusted by pre-set [Order Policy](#) parameters

**Off Standard**

This is production work that is performed by a piecework paid Operator who is not being paid 100% of the standard minutes for the [operation](#). There are many reasons for work being [off standard](#), such as training, unfamiliar work etc.

**On Order**

This is the quantity of an item for which outstanding purchase or [production orders](#) exist. It is expressed as a [balance](#) quantity at item/[stockroom](#) level.

**On Standard**

Production work that is performed by a piecework-paid Operator who will be paid 100% of the standard minutes for the [operation](#)

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### On-Hand Quantity

This is the quantity shown in Inventory as being physically in stock. For [WIP inventory](#) this is calculated as the sum of the [Available](#) + Subcontractor + Held [balances](#).

### Operation

A stage in the production [route](#) of an item

### Operation Costs

These are the [costs](#) specific to individual production stages. In the Extended edition of the software, [costs](#) can be held at [route](#) and [operation](#) level as well as item level.

### Operational Wastage

Percentage loss of [work-in-progress](#) as a result of performing an [operation](#)

### Order Policy

[Order policy](#) is used by [MPS](#) and [MRP](#) when building a suggested schedule. Policies may be: discrete; discrete above minimum; fixed quantity; number of days [supply](#) or multiples above minimum.

### Order Release

This is the point at which a [production order](#) is made [available](#) for processing on the shop floor. Materials may be allocated and issued at this point.

### Order Status

This identifies the stage that a [production order](#) has reached. The status may be one of the following: suggested, planned, confirmed, released, active, cancelled or completed.

### Organisational Model

The [organisational model](#) is a control mechanism based on a view of production [resources](#). The model enables the setting of important default values, and definition of certain procedures and policy issues which will be implemented at resource group level. To use this facility, [machines](#) must be defined to an [organisational model](#).

### Overdue Days (Planning)

Indicates the number of days of overdue [supply](#) and [demand](#) to be considered in [MPS/MRP](#) runs

### Overhead Rate

This is the rate per hour or % rate applied to absorb production overhead [costs](#) in to the item [unit cost](#). It is specified on [Cost Centres](#) together with an Overhead Recovery Method.

### Overhead Recovery Methods

Different recovery methods are [available](#) based on production [costs](#), process time, materials or outputs in terms of values or quantities.

### Overload

The condition where a [machine](#) has more work scheduled to be performed than it has [available](#) time in a given period

### Pack Type

A category of standard outer packing, such as a box or a pallet, used for storing finished [styles](#) within a [warehouse](#)

## Parallel Operations

As an alternative to consecutive [operations](#), certain tasks may be carried out in parallel, for example, completing fronts, backs, sleeves and collars for shirts and then marrying up at a subsequent [operation](#) for completion.

## Parallel Processing

This is the method of enabling groups of [operations](#) within the same [production order](#) to be active at the same time. This is also used to reduce the overall duration [lead time](#) for an [operation](#).

## Parameter File

Contains system and user-defined codes which set control parameters or allow the amendment of standard code descriptions

## Physical Stock

This is the total quantity of an item in a [stockroom](#). It is expressed as a [balance](#) quantity at item/[stockroom](#) level and also at [item stockroom](#) lot level.

## Pick

The process of issuing materials from a [warehouse](#) to a [production order](#)

## Pick Face

Within a [warehouse](#), a fixed location from which most [picking](#) takes place for a material

## Pick List

This is an instruction document detailing how much material is required and where it should be [picked](#) from. This is also referred to as a pulling list.

## Piece Control

See [Lot Control](#).

## Planned Available

The quantity calculated to be [available](#) at any point in time if [MRP](#) or recommendations are implemented

## Planned Material Scrap Rate

This is another way of expressing [material wastage](#).

## Planned Production Order

This is a [production order](#) that is not yet confirmed, but represents an intention to generate a [supply](#). It does not have material and [operation](#) details, and is based on a standard production [route](#).

## Planner

There are two types of [planner](#): firstly, a production [planner](#) is responsible for planning production of [styles](#) and secondly, a buyer is responsible for who plans a group of items and is linked to [styles](#).

## Planning Filter

This filter determines the sensitivity of [MPS](#) and [MRP](#) rescheduling logic when balancing [supply](#) and [demand](#). [Set up planning filters](#) against the WTYP parameter under the Maintain [Parameter File](#) activity. Allocate a [planning filter](#) to a [style](#) on the Production Details window under the [Style/Material](#) Details activity. To override a [planning filter](#) on an individual [route](#), use the [MPS/MRP](#) Filter field on [Style/Route](#) Override Maintenance window 3 from the [Style Route/Bill of Material](#) activity.

## Planning Horizon

The end date of an item planning run in [MPS](#) or [MRP](#)

## Planning Model

This is a method of defining a view of [supply](#) and [demand](#) for planning purposes. It is defined in terms of [stockrooms](#). Multiple [planning models](#) may be defined to produce differing views of the production environment. One particular model must be defined as that from which [MPS](#) or [MRP](#) suggestions may be confirmed to production.

## Planning Route

This is the [route](#) nominated for a [style](#). The [planning route](#) is used to plan materials and schedule manufacturing dates and times in [MPS](#) and [MRP](#). For a centralised plant, you can nominate the [planning route](#) on the Production Details window under the [Style](#)/Material Details activity.

For [multi-plant MPS](#) planning, however, multiple plants can have different [planning routes](#). Therefore, [Style](#) establishes a link between the [Receiving Stockroom](#) nominated for a [route](#) and the [stockrooms](#) nominated for each plant's [planning model](#).

## Planning Type

This indicates whether the item is [MPS](#) or [MRP](#) controlled. This field is [set up](#) in Production Details under the [Style](#)/Material Details activity.

## Primary Operation

This is a standard method for processing one part of the [route](#). The [primary operation](#) is used for all the [style variants](#), unless you have [set up variant operations](#). The [primary operation](#) is used to calculate [costs](#) for the [style](#).

## Primary Stockroom

This is the default [stockroom](#) for issuing and receipt of an item, when defining a [route](#). On [costing routes](#), the issuing [stockroom](#) for a material must be its [primary stockroom](#).

## Priority

This is the relative importance of an order in the workflow. It is used to control the sequence of jobs queuing at [machines](#).

## Process Route

This is a definition of the processes ([operational](#) stages) and materials required to produce an item or set of items. It may also be referred to as a production [route](#).

## Product Family

A [product family](#) is a group of similar items whose [demand](#) follows a similar pattern. Group codes are defined on the [Style](#) Inventory Management, [Descriptions File](#), and entered against items in the [Style](#) Inventory Management Product Group Minor field.

It is possible to maintain forecasts against families, thereby achieving reduced maintenance combined with an equivalent level of forecast accuracy.

## Production Calendar

This is the definition of the production environment in terms of working days, non-working days, holidays and shutdown periods. [Production calendars](#), once defined may be assigned to: [Company Profile](#), [Machines](#) and [MPS/MRP reporting profiles](#).

**Production Lead Time**

This is the amount of manufacturing time required to produce an item from its immediate materials and [operations](#). No reference is made to the [lead time](#) of its materials.

**Production Order**

This is a document which sets out the details of the production of a specific [style](#) in specific quantities and which is used as an authority to carry out the work. It is also known as a [works order](#).

**Production Schedule**

The plan which contains the sequence and timings of items and [operations](#) to achieve the planned production output

**Production Sequence (Major)**

An item parameter which controls the sequence in which items are planned in [MPS](#) and [MRP](#)

**Production Sequence (Minor)**

An item parameter which controls the sequence in which item [operations](#) are performed, recognising the need to make products in a preferred sequence due to, for example, [colour](#) change or [set up costs](#)

**Put Away**

For incoming materials, this is the process of moving the materials from the [goods inward](#) area in a [warehouse](#) to a location area within the [warehouse](#). For received finished [styles](#), this is the process of moving the [styles](#) from the [receipt area](#) in a [warehouse](#) to a location area within the [warehouse](#).

**Quantity Per**

This is the standard quantity of a material that is required to make its standard parent lot size.

**Queue Time**

This is the length of time that a job will wait on average at a [machine](#) after arrival before it is worked upon. This is an element of inter-[operation](#) time, and should be reduced wherever possible.

**Re-order Point**

This is the quantity of an item in a [stockroom](#) which, when reached, should [trigger](#) a re-order action. This may be set manually. [Safety stock](#) is taken from the production item master file.

**Receipt Area**

An area within a [warehouse](#) in which finished [styles](#) are stored initially after production until they are [put away](#) in a [warehouse](#) location

**Receiving Stockroom**

Used in [multi-plant MPS](#) planning to link a [planning route](#) with the [stockroom](#) associated with a specific plant

**Recommended Supply Orders**

Suggested replenishments generated by [MPS](#) and [MRP](#) to support defined inventory stocking policies and to meet outstanding [demand](#)

**Regenerative**

An [MRP](#) planning method which re-plans every [MRP](#) controlled item, regardless of its [demand](#) and [supply](#) status



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## Released Production Order

This is a [production order](#) which has been released to the production (shop floor) process. Materials may be allocated and issued to it, and production activities may be booked against it. Any [bookings](#) of material or production will automatically change its status to Active.

## Reporting Level

This is the level at which an [operation](#) will be reported. This may be [style](#), [style/colour](#), [style/size](#) or [style/colour/size](#).

## Reporting Profile

Although [MPS](#) and [MRP](#) calculate [demand/supply](#) on a daily basis, information pertaining to the production plan may be 'bucketed', that is, grouped into time slots, in accordance with a [reporting profile](#) defined for each [planning model](#). Usually, this requires the grouping of data into small time periods at the start of the plan; then longer time periods as the plan moves out into future periods.

## Reporting Types

This is a set of predefined [transaction types](#) which [Transaction Manager](#) uses to perform required updates. Examples are [WIP](#) scrap, [down time](#), [set up time](#) and subcontractor [rework](#).

## Resources

These are the facilities which contribute to the production of items. Within the Production system, these comprise: [cost centres](#), [machines](#), [work centres](#), [production calendars](#), [shift profiles](#), [labour skills](#), operators, teams and subcontractors.

## Rework

Work that is necessary to correct a sub-standard item rejected during/after its manufacture

## Roll Control

See [Lot Control](#).

## Route

A definition of the [operational](#) stages involved in producing an item, sequenced in order of manufacture, and specifying the materials required in terms of materials and [resources](#)

## Route Code

This is the identification code representing an item structure and production method. There can be different [routes](#) created for an item. A preferred planning and [cost route](#) can be defined.

## Route/BOM

Defines both the [route](#) (production stages) and material requirements ([BOM](#), recipe, formula) required to produce an item

## Run Time

The length of time required by an [operation](#)

## Safety Lead Time (Planning)

This is used to set an end date beyond the [cumulative lead time](#) of an item. The end date is calculated as item horizon plus safety [lead time](#).

## Safety Stock

The desired level of stockholding for an item to support a customer service or availability policy

**Sales Forecast**

This is a statement of the anticipated market [demand](#) for a product. It can be compared with actual sales orders, in [MPS/MRP](#) calculations to determine the [net demand](#) to be met by production. This is dependent upon the [Demand Policy](#) code set for the item.

**Scheduled Receipt**

A planned [supply](#) in [MPS/MRP](#); this may be a released or active production or purchase order

**Scheduling**

The process of calculating and suggesting due dates, quantities and action dates for the [supply](#) of an item to meet required [demand](#) quantities and dates

**Search Family**

This is linked to a [style](#). It defines the descriptions for each of the [style's dimensions](#), i.e., [colour](#) and size.

**Seasonal Profile**

Use a [seasonal profile](#) to represent seasonal variations in forecasting. To create and update [seasonal profiles](#), use the Maintain Seasonal Indices activity. The Profile Code field under this activity identifies each [seasonal profile](#). To allocate a [seasonal profile](#) to a [style](#), enter the Profile Code in the [Seasonal Profile](#) field under the [Style/Material Details](#) activity.

**Serial Number Control**

A form of [lot control](#) which maintains single, uniquely identified (serialised) units

**Set Up**

This is the option of preparing [machines](#) or processes for production. [Set up time](#) forms part of the [lead time](#) of an [operation](#).

**Set Up Time**

This is the duration of the [set up](#) for a [machine](#). This is expressed as a [labour time](#).

**Shade Control**

See [Lot Control](#).

**Shift Length**

The duration of an individual working shift for a [machine](#)

**Shift Profiles**

These describe the pattern of shifts in a day. [Shift profiles](#) use effectivity dates to reflect planned changes in patterns. A default shift profile may be assigned to a [machine](#); or a shift profile assigned to each working day within a week at a [machine](#). The shift profile defines the number of productive hours [available](#) on a working day.

**Shipper Number**

A number assigned to each shipment of items to or from a subcontractor if [Shipper Tracking](#) is in use

**Shipper Tracking**

A method of tracking materials or [WIP inventory](#) to or from subcontractors

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### Simulated Cost

A function which projects product [costs](#) by applying variables to the [cost](#) structure to ascertain likely future [costs](#), or by changing materials to ascertain the [cost](#) impact of the changes

### Single Level Enquiry

A one level explosion of a [bill of material](#) and [route](#) which [costs](#) the materials and [operation](#) processes required to make the parent item

### Size Mask

This is linked to a [style](#) and is a group of sizes (in sequence) in which the [style](#) is produced.

### SKU

Acronym for Stock Keeping Unit - an individual [stock item](#)

For [styles](#) of more than one [dimension](#), the [SKU](#) represents the lowest level of definition for a [style](#). For example, a 3-[dimensional](#) skirt (i.e. skirt/[colour](#)/[size](#)) may have various [SKUs](#) including black size 10, black size 12, black size 14, red size 10, red size 12, red size 14 and so on.

An [SKU](#) is also called a [variant](#).

You can control production at the [SKU](#) level.

### Smoothing Policy

A planning policy which smoothes sale forecast [demand](#) to provide a level [production schedule](#)

### Standard Capacity

The daily [capacity](#) in hours of a [machine](#) when operating at its normal rate, and normal shift patterns

### Standard Capacity Factor

This is a number that you can specify against a shift profile. This number is multiplied by the total number of hours defined in the shift profile to calculate the [standard capacity](#) of a [machine](#). For example, for a shift profile of 8 hours at a [machine](#) where 2 persons operate, you would enter a factor of 2 to indicate a [standard capacity](#) of 16 hours.

### Standard Costs

This is a [costing method available](#) in Production and Inventory. [Standard costs](#) are calculated for items based [on standard cost](#) rates and [operation](#) times and the [standard costs](#) of materials. They form the yardstick for performance measurement in a given period.

### Standard Efficiency

This is the percentage of the [standard capacity](#) of a [machine](#) which you expect to achieve under normal [operational](#) circumstances. This percentage may be used in [capacity planning](#) enquiries and reports.

### Standard Lot Size

Standard batch size in terms of which material quantities and [operation](#) times are expressed in a [route/BOM](#)

### Standard Operation

This is an [operation](#) that can be included in individual [style routes](#). The [operation](#) belongs to a [standard operation group](#).

**Standard Operation Group**

These are [standard operations](#) that are grouped together, for example, a group of cutting [operations](#). A [standard operation group](#) might also contain a generic sequence of [operations](#). You can include one or more [standard operations](#) in individual [style routes](#).

**Standard Production Orders**

[Production orders](#) which are based on a standard [route](#) to obtain material requirements and [operation](#) details

**Start Date**

The scheduled release date of a production or purchase order

**Start Date (Planning)**

This is the first date considered by [MPS](#) and [MRP](#). [Demand](#) and [Supply](#) prior to this date is ignored. It is the Current Date less Overdue days set for the planning run.

**Stock Forecast**

A forecast used in [MPS](#) and [MRP](#) to plan variable levels of inventory availability to maintain desired customer service levels over and above standard [safety stock](#)

**Stock Item**

See [SKU](#).

**Stock Movement**

This is a movement of a quantity of an item into or out of a [stockroom](#). More particularly, this will refer to the recording of such a movement in the application, and the transaction record created as a result.

**Stockroom**

This is a discrete area where stock for an item is recorded and controlled separately from other company stocks. [Stockroom](#) codes are also used to define 'logical' [stockrooms](#) used to hold [WIP inventory](#), and [Floor Stock Locations](#) which may be physical or [logical stockrooms](#).

**Stockroom Balance**

See [Balance](#) and [Item Stockroom](#).

**Style**

[Style](#) has two definitions. Firstly, [Style](#) is the System21 [Style](#) product. Secondly, a [style](#) is an end product with one or more [dimensions](#).

**Style Matrix**

The [style matrix](#) is fundamental to System21 [Style](#) and occurs throughout System21 [Style](#) Distribution and System21 [Style](#) Production. A [style matrix](#) can have a maximum of 4 [dimensions](#).

The first [dimension](#) of every matrix is always the [style](#) or the product itself. The second [dimension](#) (e.g. [colour](#)) sits on the X-axis of the matrix. The third and fourth [dimensions](#) (e.g. size, fit) sit on the Y-axis of the matrix.

Each cell in the matrix represents a single [stock item](#) or [SKU](#) (e.g. a size 12 black skirt).

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The big advantage of the [Style matrix](#) is that, once the matrix is defined, the individual cells of the matrix are automatically created as the [SKUs](#). Therefore, the [Style matrix](#) enables you to define vast numbers of individual [stock items](#) quickly and efficiently.

You can also make sensible decisions at the level of the [style matrix](#) rather than having to deal with each individual stock keeping unit.

### **Subcontract Operation**

This is work on the production of an item that is carried out by another manufacturer. This entails sending materials or [WIP](#) which are worked on by the subcontractor before being returned for further [operations](#), or quality inspection or receipt into stock.

### **Subcontractor Stockroom**

This is a [logical stockroom](#) which holds all subcontractor material [balances](#). Subcontractor [WIP inventory balances](#) are held as [balances](#) at [operations](#) in the associated [machine WIP location](#).

### **Subcontractor Shipper**

A document that goes out, together with the partly completed goods, to the subcontractor

### **Suggested Production Order**

An [MPS](#) or [MRP](#) recommendation to create a [production order](#) to satisfy a shortage identified by the planning process

### **Suggested Purchase Order**

An [MPS](#) or [MRP](#) recommendation to create a purchase order to satisfy a shortage identified by the planning process

### **Sundry Issue**

Any receipt of materials that is unrelated to either a purchase order or a [production order](#)

### **Sundry Receipt**

Any receipt of materials that is unrelated to either a purchase order or a [production order](#)

### **Supplier**

A code representing the vendor/[supplier](#)

### **Supply**

The planned receipt of item quantity from a purchase order or [production order](#)

### **Team Size**

The standard number of operatives scheduled to work on an [operation](#), either as [direct labour](#) or [set up labour](#)

### **This Level**

The final level of manufacture for an item with a multi level [route/BOM](#), as opposed to 'lower' levels of manufacture such as sub-assemblies

### **Time Basis Code**

This is a code indicating how [operation](#) times are expressed on a [route](#). These are: time per lot; time each; [quantity per](#) hour; fixed time, time per 1000; time per 100; time per fixed batch.

**Time Booking Policy**

This is a parameter set on the [Organisational Model](#) to control the time [booking](#) format in Production reporting. This may be in decimal hours or hours and minutes. This policy is set only if the [Time Reporting Policy](#) is set to elapsed time.

**Time Fence**

The date which the schedule is fixed no recommendations are made by [MPS](#) or [MRP](#) to change existing production or to suggest new production

**Time Fence Days (Planning)**

The number of days that are added to the Current Date to calculate the [Time Fence](#) Date

**Time Fence Policy**

Parameter set at item level indicating whether shortages occurring within the [time fence](#) should be ignored, or satisfied on the [Time Fence](#) date

**Time Reporting Policy**

This is a parameter set on the [Organisational Model](#) to control the format in which operator and [machine times](#) at an [operation](#) are entered. This may be set for entry as elapsed time or as work start time and stop time.

**Time Units**

These are the units in which [operation](#) times are expressed. This is defined on the [Company Profile](#) and can be in hours or minutes.

**Transaction Manager**

This is the function that processes production and [WIP inventory](#) transactions, generating movement records and updates [balances](#). It runs in its own subsystem and may be started and stopped. It must be running in order to keep [balances](#) and transaction details up-to-date during production [bookings](#).

**Transaction Number**

Each production [booking](#) entered on the system is allocated a system [transaction number](#) which may be accessed and displayed for subsequent reference in enquiries and reports.

**Transaction Type**

There are System21 transaction codes which represent a particular [balance](#) update or movement generation. The [transaction type](#) calls a program which ultimately updates the database.

**Trial Kit**

This is a method of simulating material allocation to a [production order](#) or [route](#) to assess availability to meet the requirements. It is also known as Material Availability Enquiry.

**Trigger**

Marks a change to the [demand](#) or [supply](#) of a [Style](#) item since the last [net change MRP run](#)

**Unit Cost**

The amortised [cost](#) of a single unit of an item

**Unit of Measure**

The unit in which a [balance](#) quantity or [unit cost](#) is expressed

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### Unplanned Issue

Issue of materials to a [production order](#) which has not been previously allocated

### Unplanned Receipt

Receipt into inventory of an item or items not expected at the [booking operation](#), that is, not standard on the [route](#), or order

### Usage

The quantity of an item issued from a [stockroom](#) in a given period

### Usage Profile

A user-defined profile which specifies the pattern of periods to be included in the calculation of [average usage](#)

### Utilisation

The extent to which the [capacity](#) of a [machine](#) is expended by actual work performed

### Value/Usage

This is the [value/usage](#) setting for an item in Inventory. It positions the item in a matrix of [value/usage](#). It is a selection criterion for selective [MRP](#).

### Variance

A difference between the standard [cost](#) or volume of a process and the actual recorded [cost](#) or volume

### Variant

These are the different [colours](#) and sizes which make up a [style](#) or material. A [variant](#) is equivalent to a [SKU](#). Each [variant](#) has a cell in the [Style matrix](#).

### Variant Operation

This is an [operation](#) that produces one or more [style variants](#) in a different way to the [primary operation](#). [Style](#) calculates [costs](#) separately for [style variants](#) produced by a [variant operation](#). [Scheduling](#) of work is also done separately for these [style variants](#).

### Variant Spread

This is a distribution of [variant](#) quantities that is used to break down a total quantity for the [style](#). For example, if you wish to make twice as many red shirts as green shirts, you can enter 2 under red and 1 under green. Then, if blue shirts are ten times more popular than green shirts, you need to enter 10 under blue. [Style](#) uses this [variant spread](#) to distribute a forecast down to [variant](#) level. In addition, when you create a [production order](#), [Style](#) distributes the total quantity amongst the [variants](#) according to this [variant spread](#).

### Warehouse

If you have Warehousing installed, you can use [warehouses](#) to stock materials and finished goods.

### Wastage (Material)

The planning factor applied to any material on a [route](#) to reflect expected loss

### Wastage (Operation)

This is the planning factor applied to an [operation](#) to reflect expected losses. [Scheduling](#) uses the factor to inflate the standard times to make the required lot size.

**Wastage Cost**

This is the amount of item [unit cost](#) attributable to [operational](#) or [material wastage](#) in the production process. It is held by [Cost](#) Element and can optionally be consolidated into the item [cost elements](#). A wastage element can be configured to display the total [wastage cost](#).

**WIP**

Acronym for [Work-in-Progress](#)

**WIP Inventory**

[Work-in-progress](#) inventory - transparent to [Style](#) Inventory Management, but accessible through enquiries in Production [WIP Inventory](#) Control

**WIP Location**

A [WIP location](#) defines a location, either logical or physical, on the shop floor where inventory is stored between [operations](#). The location may be associated with one or more [machines](#).

Initially, inventory [balances](#) at a given [WIP location](#) are maintained as a result of [booking](#) inventory against a [count point operation](#). Quantities may be entered for good, scrap and held inventory. [WIP Inventory](#) Management allows inventory to be changed in a variety of ways prior to its reaching the next [operation](#) in the [route](#).

**WIP Shipper**

See Subcontract Shipper.

**Work Centre**

This is a collection of [machines](#) grouped together for [capacity requirements](#) analysis. [Work centres](#) are not used in planning or [machine scheduling](#).

**Work-in-Progress**

This is the value of work currently underway in the factory in terms of the material issued, and the [operations](#) performed. For a given order, [WIP](#) valuation is calculated as the value of material and work material less the value of receipts made into stock. [Work-in-progress \(WIP\)](#) can be valued at standard or [current cost](#).

**Works Order**

See [Production Order](#).