

TRIMIT Forecasting

White Paper

This document contains information about TRIMIT Forecasting functionality in TRIMIT 2013Sp1.

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TABLE OF CONTENTS

Introduction	3
Forecasting Types.....	4
Forecasting Factor.....	10
Forecasted Quantities.....	13
Incorporate Forecast in TRIMIT MRP	19
Conclusion.....	21

INTRODUCTION

Forecasting is the science of predicting requirements of a product. This could be for Raw Materials and for Finished Products. The role of Forecasting is important, because a good forecast enables you to have just enough stock to fulfill future sales orders or production orders. This means that your stock level value is at a minimum for Never-Out-of-Stock products. For products that comes to an end of their lifecycle it means that you will have a minimum of obsolete stock (ideally 0).

In TRIMIT, two features support forecasting. Both methods are discussed in this document. Before that, it is interesting to have a small introduction about different types of Forecasting and their Forecasting parameters.

The actual determination of Forecasting parameters will not take place in TRIMIT. For these purposes specific software has been developed that are specialized in Forecasts. Some of them are mentioned in footnotes, since you may encounter them on customer sites. They can be interfaced with TRIMIT, but that is not in scope of this document.

The functionality described is the functionality in **TRIMIT 2013Sp1 W1**.

The pictures in this White Paper are based on the demo database for **TRIMIT 2013Sp1 W1** (based on Microsoft Dynamics NAV 2013) in the demo company **CRONUS TRIMIT 2013Sp1 W1** (based on CRONUS International Ltd. from Microsoft Dynamics NAV 2013).

FORECASTING TYPES

Forecasting is a science and we keep getting new ways of predicting the future. The forecasting types vary within New Products, Existing products and Comparable Products. In this chapter, we will have a closer look at some of the more known types of forecasting methods.

FORECASTING NEW PRODUCT

Definition: *Forecasting is the science of predicting the degree of success a new product will enjoy in the market place.*

For this type of Forecasting several scientific models have been developed, such as the Bass Diffusion Model as shown in fig. 1.

$$\frac{f(t)}{1 - F(t)} = p + \frac{q}{m} N(t)$$

- F(t) is the probability of adoption at time t
- f(t) is the rate at which adoption is changing with respect to t
- N(t) is the number of adopters at time t
- m is the total number of consumers who will eventually adopt
- p is the coefficient of innovation
- q is the coefficient of imitation

Fig. 1. Bass Diffusion Model

This looks rather complex, but if you have a closer look, you may come to the conclusion that this model can only be used for really new products with new purposes that someone wants to get into the market. In the industry that TRIMIT software supports, most of the time the products are not new, but merely a deviation from a previous model. A chair is a product to sit on and that purpose does not change, if we create a new model. This is the same for garments. So we can forget about this type of Forecasting.

FORECASTING EXISTING PRODUCT

Definition: *Forecast is an objective procedure, using data collected over time. A forecast involves an assumption that current trends will continue into the future.*

This type of Forecasting requires historical data to take into account in order to determine a trend. So this Forecasting type can only be used on Never-out-of-Stock products, whether they are finished products or raw materials.

This means that when you know the trend, you can actually estimate the quantities that you need for specific periods. We will see later in this document that you can enter those quantities in TRIMIT. However, determining the trend is not something that TRIMIT does in the system. For that purpose other software can be used. You'll find an example below in fig. 2.

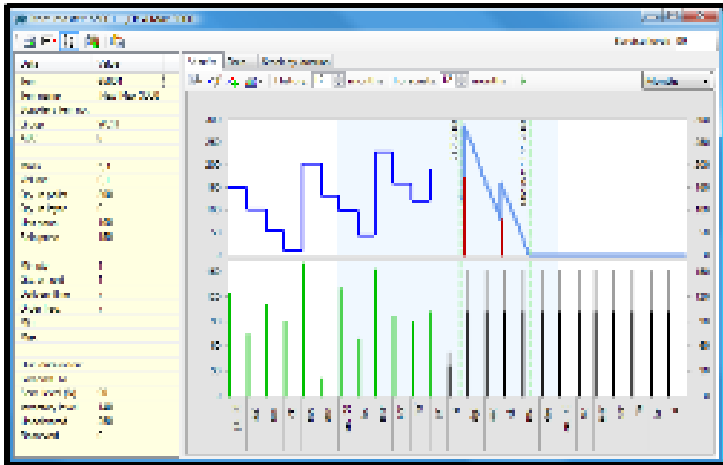


Fig. 2. Trends in Inventory¹

The reason why people use this type of forecasting is to optimize their warehouse. Ideally, a company wants to have just sufficient stock to fulfill the demand within a specific period until the next batch come in.

When you know the trend, TRIMIT provides the possibility to manipulate logistic parameters, such as Reorder Point or Maximum Inventory.

BLIND FORECAST

With the Blind Forecast, the company does not look at historical data or trends. The company simply make a statement: “I want to do 10% more sales of this product than last year!” This may result in comparably increased number of forecasted products to be manufactured or purchased. The expectation is that the sales people visit more customers and/or that the current customers will do more.

FORECASTING COMPARABLE PRODUCTS

This is the most common type of Forecasting for TRIMIT. Companies develop deviations of an existing model, so a new product is not really new, but also by definition not an existing one. It is easy to assume that newly developed products behave the same as previous models. Especially in the Fashion Industry this is valid because of the seasonal effect that is always an influential factor. Every season more or less repeats itself.

Example: it is easy to compare a winter jacket of this year with another winter jacket of previous year.

There are two ways of handling this kind of forecast depending on the company type. Retail Chains make a forecast according to the Open-to-Buy principal, which will be discussed in a later paragraph of this chapter. Wholesalers can do that as well, but they also have the advantage of a pre-sales phase. This advantage will be explained in the next paragraph.

¹ This picture is borrowed from AGR (www.agrinventory.com). AGR is an independent software house from Iceland. Its forecasting software has been integrated with NAV ERP in many cases. Neither of them are TRIMIT although some of the TRIMIT partners are also AGR partners.

EXTRAPOLATION METHODS

When a company has a pre-sales phase, it has the advantage to have some sales data before you purchase. On a specific moment during the pre-sales phase, it is possible to have a look at the sales quantities. These quantities could be extrapolated to the full pre-sales expectations.

Described below are three methods.

- Basic Linear Extrapolation
- Generic Linear Extrapolation
- Early Forecasting based on Comparable Item Behavior

These three methods are discussed below.

Basic Linear Extrapolation

Basic Linear Extrapolation is a very basic method of forecasting. For instance: after 1/3 of the pre-sales period, we take our moment of Forecast, in which we determine the current sold quantities (Q_s). This is schematically shown below in fig. 3.

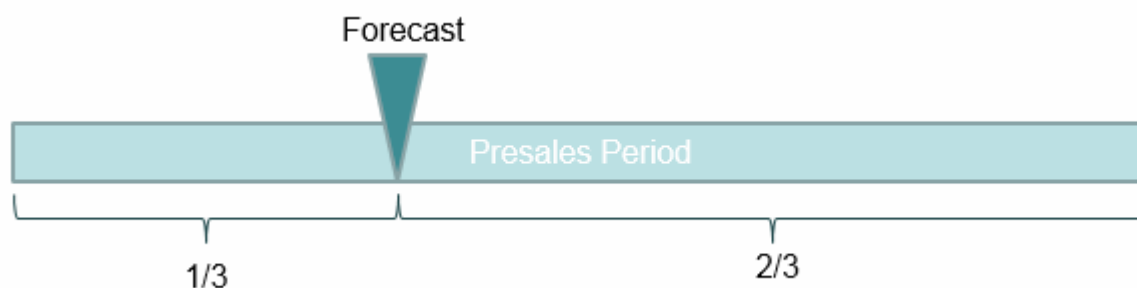


Fig. 3. Basic Linear Extrapolation Method.

This means that we have to extrapolate this figure for the rest (2/3) of the pre-sales period. In this method we assume that the future sales behaves the same as the previous sales. With this assumption, it is easy to postulate a formula in which we calculate the Forecasted Quantity (Q_f) (fig. 4.)

$$Q_f = (1 + 2/3 / 1/3) Q_s = 3 * Q_s$$

Fig. 4. Basic Linear Extrapolation Formula.

So this means that our forecast quantity is three times our currently sold quantities.

Generic Linear Extrapolation

In the previous paragraph, we have one important assumptions: the sales after the Forecasting moment is the same as the sales before. There are several reasons why that is probably not the case. Some examples are mentioned below:

- Sales Agents may visit their best customers first, so in time the real sales quantity should have a downward trend.
- An extremely big customer will influence the forecasted quantity enormously. If this customer has been ordering before the Forecasting Moment the simple linear

extrapolation will result in numbers that are too high. If this customer comes in after the Forecasting Moment than the forecasted quantities can be too low.

- During the Sales process there can be a change of focus. On the road, the sales agent learns which products sells best and he may concentrate on those later on in the sale process.

So we could rewrite the formula in fig. 4 in a more generic way (fig. 5), where **f** is the forecasting factor.

$$Q_f = f * Q_s$$

Fig. 5. Generic Extrapolation Formula

We can conclude that the Basic Linear Extrapolation described in paragraph [Basic Linear Extrapolation](#) is a simple version of Generic Linear Extrapolation. The difference is that the determination of the basic extrapolation is very easy: in the example **f**=3.

If other influencers should be included in the forecasting factor, it is more complex to calculate it. This will NEVER be done in standard TRIMIT, because it is too specific. However, when the factor is established we can use it in TRIMIT for calculating the Forecasted quantities by applying it according to the formula in fig. 5. This will be described in Chapter [Forecasting Factor](#).

Early Forecast based on Comparable Item behavior

The earlier a company calculates the forecasts the better it is. You'll have more time to get the appropriate goods in house in time and probably for a cheaper price. The problem is that the earlier you do a forecast as described in the paragraph above, the less reliable the numbers become.

A better solution is to compare the sales behavior of new items with the behavior of items in the past. This is schematically explained in this paragraph. In fig. 6 you can see three types of pre-sales behavior of an item. We call them here Scenarios.

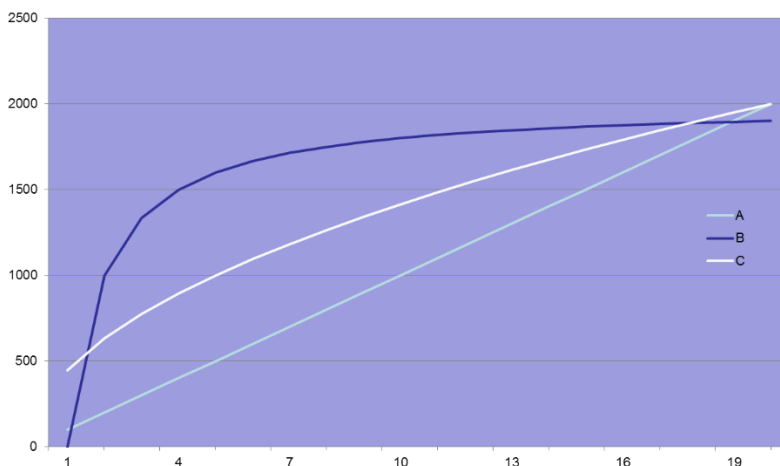


Fig. 6. Three Types of pre-sales behavior of an Item (schematic).

The next step is that we put in the sales data of a new Item. This is shown in fig. 7. If we connect the points, we can conclude that Scenario **A** fits best. So we assume that if Scenario A fits best in the beginning, Scenario A should also be the best fitting Scenario at the end of the pre-sales period.² So we can calculate the forecasted quantity from this.

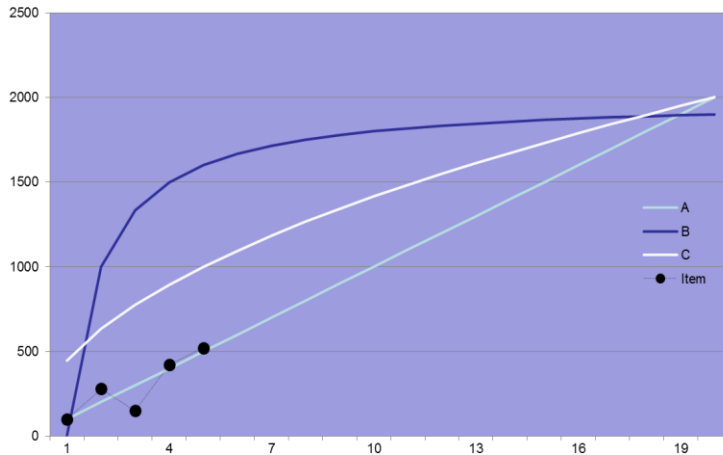


Fig. 7. Comparison Sales Information New data with the three models.

This type of forecast calculation will never be done in TRIMIT, because it is too specific. However, when the forecasted quantities are established we can use those in TRIMIT in a specific kind of Blanket Order.

OPEN-TO-BUY

Retail chains have the problem that they do not have a pre-sales phase from which they can extrapolate. Therefore, they have to find another way to determine what to purchase/manufacture. The idea is to have enough stock to fill up and replenish the stores. For this purpose retail organizations setup budgets. This is called 'Open-to-Buy'.

For Fashion Retailers this is even more important, because the content of the store change at least every season; sometimes even every month. This means that it is even more important to have the stock under control. Ideally a company has only stock enough in store and for replenishment for one season. The rest is obsolete and goes into the Closing Sale. More sophisticated Open-to-Buy is required³. This is explained below.

Products are divided into groups according a certain hierarchy (levels). This can be done in many ways, but a very important group has to do with the way the goods are displayed, such as

² Of course Sales behavior does not say anything about the actual sold quantities. Therefore often rescaling is necessary to find an appropriate fit. For the Fashion Industry there is software available in the market that just does that: it compares new styles with for instance multiple scenarios including rescaling. (A3: www.a3forecastsolutions.com).

³ An example of software that handle Open-to-Buy for retail organizations is Darwin (www.darwinretail.com). This software is well known to be integrated with NAV.

'hanging', 'lying', 'shoe racks', etc., because it makes no sense to purchase more hanging goods than you can handle in a store and leave the shelves for the lying products empty.

In order to make the best possible forecast, companies make a budget for a specific season. This budget is cut in pieces for the first level of grouping. The budgets for the first level groups are again cut in pieces for the second level groupings. This repeats itself for all levels until a budget for the lowest level is reached; sometimes even till color/size level.

This type of forecast calculation will never be done in TRIMIT, because it is too specific. However, when the forecasted quantities are established we can use those in TRIMIT in a specific kind of Blanket Order.

MULTI-CHANNEL FORECAST

The forecasting becomes more complicated, if a company has more than one sales channel.

Sales channels can be:

- Wholesale
- Retail
- Web Sales
- Catalogue Sales
- Etc.

Every channel requires its own stock and thus also its own forecasting method. Therefore a combination of different forecasting techniques is required. Most of the time a forecast is determined for every specific channel. The results are added up, so that the appropriate quantity of products can be purchased/produced for all sales channels.

FORECASTING FACTOR

USING FORECASTING FACTOR IN TRIMIT

In the previous chapter, we have described several forecasting methods. Some of them include a Forecasting Factor. As stated above TRIMIT has no means to calculate this factor. However, if this factor is determined in other ways – for instance via Forecasting Software – it can be applied during the demand planning. This will be described in this chapter.

SETTING UP FORECASTING FACTOR

The Forecasting Factor should be applied when we want to do a demand planning. In TRIMIT this is called MRP. Therefore we can find the setup for this factor in the MRP Setup. In TRIMIT it is possible to have multiple MRP Setups. These can be found in the MRP Setup List as shown in fig. 8. Every MRP Setup can have a specific factor. To enter a Forecasting Factor to a specific MRP Setup we have to open the MRP Setup Card, by clicking **Card** in the ribbon *Navigate*.

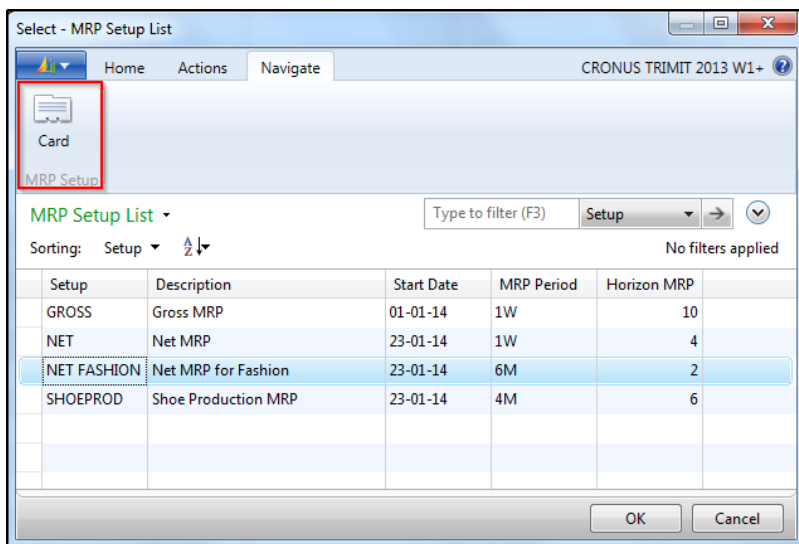


Fig. 8. MRP Setup List.

If you open one of them you can find on the FastTab **Advanced** the field **Factor on Sales Requirement** (see fig. 9), which acts as the Forecasting Factor during calculation of the demand.

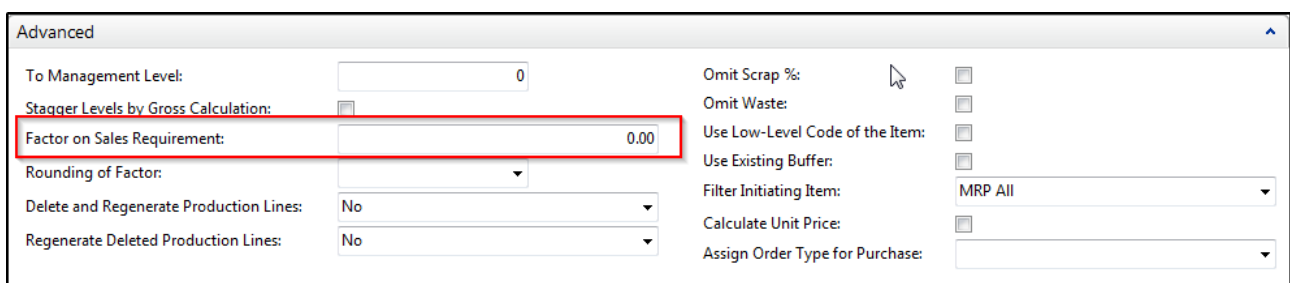


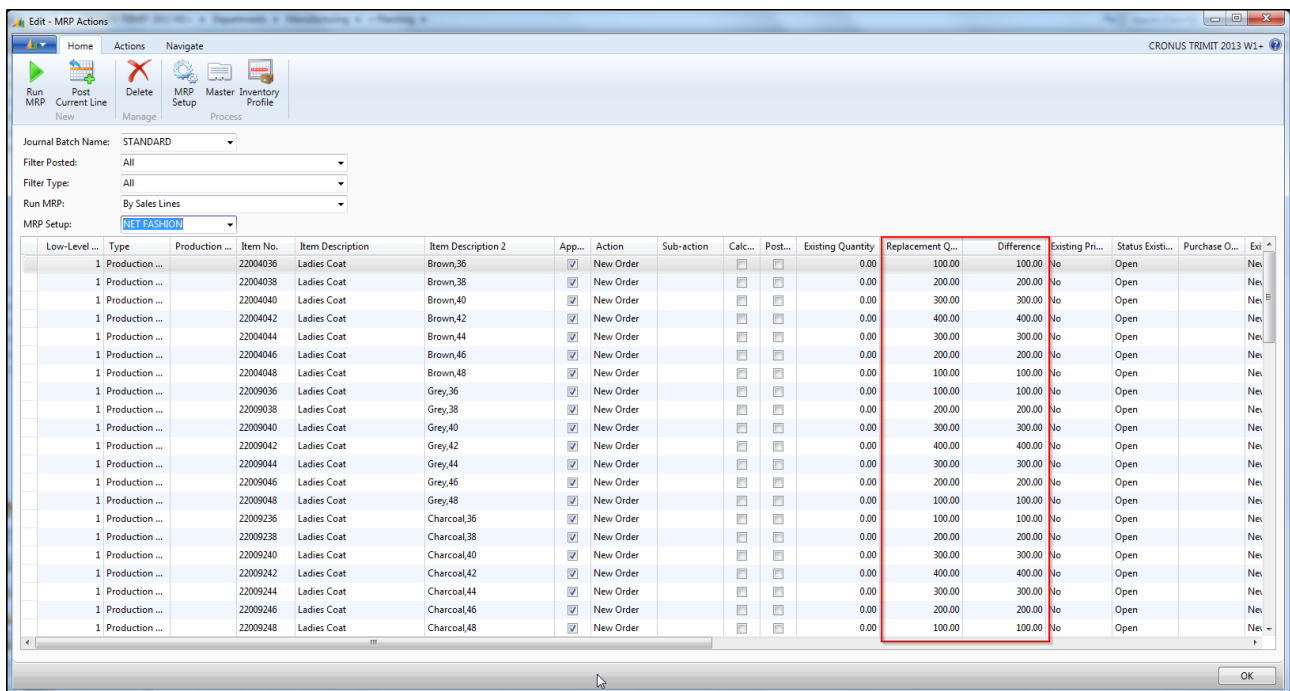
Fig. 9. Factor on Sales requirement (Forecasting Factor)

NOTE:

If the **Factor on Sales Requirement** equals to *0.00* no Forecasting factor will be taken into account while calculating the demand. This results in the same demand as if the **Factor on Sales Requirement** would have equaled *1.00*.

DEMAND CALCULATION USING THE FORECASTING FACTOR

Let us have a look at the results after applying a Forecasting Factor. We will investigate this with the help of the Actions Worksheet. As preparation some orders have been entered of Master 2200 (Ladies Coat). For the MRP Setup we use *NET FASHION*; the **Factor on Sales Requirement** equals *0.00* as in fig. 9. After running the MRP the result will be as in fig. 10.



Low-Level ...	Type	Production ...	Item No.	Item Description	Item Description 2	App...	Action	Sub-action	Calc...	Post...	Existing Quantity	Replacement Q...	Difference	Existing Pri...	Status Existi...	Purchase O...	Exi...
1	Production ...		22004036	Ladies Coat	Brown,36		New Order				0.00	100.00	100.00	No	Open		Nei...
1	Production ...		22004038	Ladies Coat	Brown,38		New Order				0.00	200.00	200.00	No	Open		Nei...
1	Production ...		22004040	Ladies Coat	Brown,40		New Order				0.00	300.00	300.00	No	Open		Nei...
1	Production ...		22004042	Ladies Coat	Brown,42		New Order				0.00	400.00	400.00	No	Open		Nei...
1	Production ...		22004044	Ladies Coat	Brown,44		New Order				0.00	300.00	300.00	No	Open		Nei...
1	Production ...		22004046	Ladies Coat	Brown,46		New Order				0.00	200.00	200.00	No	Open		Nei...
1	Production ...		22004048	Ladies Coat	Brown,48		New Order				0.00	100.00	100.00	No	Open		Nei...
1	Production ...		22009036	Ladies Coat	Grey,36		New Order				0.00	100.00	100.00	No	Open		Nei...
1	Production ...		22009038	Ladies Coat	Grey,38		New Order				0.00	200.00	200.00	No	Open		Nei...
1	Production ...		22009040	Ladies Coat	Grey,40		New Order				0.00	300.00	300.00	No	Open		Nei...
1	Production ...		22009042	Ladies Coat	Grey,42		New Order				0.00	400.00	400.00	No	Open		Nei...
1	Production ...		22009044	Ladies Coat	Grey,44		New Order				0.00	300.00	300.00	No	Open		Nei...
1	Production ...		22009046	Ladies Coat	Grey,46		New Order				0.00	200.00	200.00	No	Open		Nei...
1	Production ...		22009048	Ladies Coat	Grey,48		New Order				0.00	100.00	100.00	No	Open		Nei...
1	Production ...		22009236	Ladies Coat	Charcoal,36		New Order				0.00	100.00	100.00	No	Open		Nei...
1	Production ...		22009238	Ladies Coat	Charcoal,38		New Order				0.00	200.00	200.00	No	Open		Nei...
1	Production ...		22009240	Ladies Coat	Charcoal,40		New Order				0.00	300.00	300.00	No	Open		Nei...
1	Production ...		22009242	Ladies Coat	Charcoal,42		New Order				0.00	400.00	400.00	No	Open		Nei...
1	Production ...		22009244	Ladies Coat	Charcoal,44		New Order				0.00	300.00	300.00	No	Open		Nei...
1	Production ...		22009246	Ladies Coat	Charcoal,46		New Order				0.00	200.00	200.00	No	Open		Nei...
1	Production ...		22009248	Ladies Coat	Charcoal,48		New Order				0.00	100.00	100.00	No	Open		Nei...

Fig. 10. Demand Planning (no Forecasting Factor).

If we change the **Factor on Sales Requirement** into *2.00*, running the MRP the result will be as in fig. 11. We can see that the required quantities are now exactly twice as high (because there was no Inventory so the total quantity of the open sales orders are the total demand).

Edit - MRP Actions

Home Actions Navigate

Run MRP Post Current Line Delete MRP Setup Master Inventory Profile

Journal Batch Name: STANDARD

Filter Posted: All

Filter Type: All

Run MRP: By Sales Lines

MRP Setup: NET FASHION

Low-Level ...	Type	Production ...	Item No.	Item Description	Item Description 2	App...	Action	Sub-action	Calc...	Post...	Existing Quantity	Replacement Q...	Difference	Existing Pri...	Status Existi...	Purchase O...	Exi...
1	Production ...		22004036	Ladies Coat	Brown,36		New Order				0.00	200.00	200.00	No	Open		Nei...
1	Production ...		22004038	Ladies Coat	Brown,38		New Order				0.00	400.00	400.00	No	Open		Nei...
1	Production ...		22004040	Ladies Coat	Brown,40		New Order				0.00	600.00	600.00	No	Open		Nei...
1	Production ...		22004042	Ladies Coat	Brown,42		New Order				0.00	800.00	800.00	No	Open		Nei...
1	Production ...		22004044	Ladies Coat	Brown,44		New Order				0.00	600.00	600.00	No	Open		Nei...
1	Production ...		22004046	Ladies Coat	Brown,46		New Order				0.00	400.00	400.00	No	Open		Nei...
1	Production ...		22004048	Ladies Coat	Brown,48		New Order				0.00	200.00	200.00	No	Open		Nei...
1	Production ...		22009036	Ladies Coat	Grey,36		New Order				0.00	200.00	200.00	No	Open		Nei...
1	Production ...		22009038	Ladies Coat	Grey,38		New Order				0.00	400.00	400.00	No	Open		Nei...
1	Production ...		22009040	Ladies Coat	Grey,40		New Order				0.00	600.00	600.00	No	Open		Nei...
1	Production ...		22009042	Ladies Coat	Grey,42		New Order				0.00	800.00	800.00	No	Open		Nei...
1	Production ...		22009044	Ladies Coat	Grey,44		New Order				0.00	600.00	600.00	No	Open		Nei...
1	Production ...		22009046	Ladies Coat	Grey,46		New Order				0.00	400.00	400.00	No	Open		Nei...
1	Production ...		22009048	Ladies Coat	Grey,48		New Order				0.00	200.00	200.00	No	Open		Nei...
1	Production ...		22009236	Ladies Coat	Charcoal,36		New Order				0.00	200.00	200.00	No	Open		Nei...
1	Production ...		22009238	Ladies Coat	Charcoal,38		New Order				0.00	400.00	400.00	No	Open		Nei...
1	Production ...		22009240	Ladies Coat	Charcoal,40		New Order				0.00	600.00	600.00	No	Open		Nei...
1	Production ...		22009242	Ladies Coat	Charcoal,42		New Order				0.00	800.00	800.00	No	Open		Nei...
1	Production ...		22009244	Ladies Coat	Charcoal,44		New Order				0.00	600.00	600.00	No	Open		Nei...
1	Production ...		22009246	Ladies Coat	Charcoal,46		New Order				0.00	400.00	400.00	No	Open		Nei...
1	Production ...		22009248	Ladies Coat	Charcoal,48		New Order				0.00	200.00	200.00	No	Open		Nei...

OK

Fig. 11. Demand Planning Factor on Sales Requirement = 2.00.

FORECASTED QUANTITIES

INTRODUCTION

The previous chapter has described how TRIMIT handles a Forecasting Factor. In this chapter is discussed how TRIMIT handles Forecasted Quantities. To support this TRIMIT has modified the standard NAV Blanket Order. The idea is that forecasted quantities of a specific Master are entered in a Blanket Order for a dummy customer. If a regular order is made with this Master, the ordered quantities will be deducted from the Blanket Order regardless of the Customer. In the TRIMIT demand planning, it is possible to include quantities of the Blanket Order.

SETUP

In order to work this way several setups needs to be done. First of all a Dummy Customer needs to be created. In the TRIMIT demo database, this Customer is called *STD* (fig. 12).

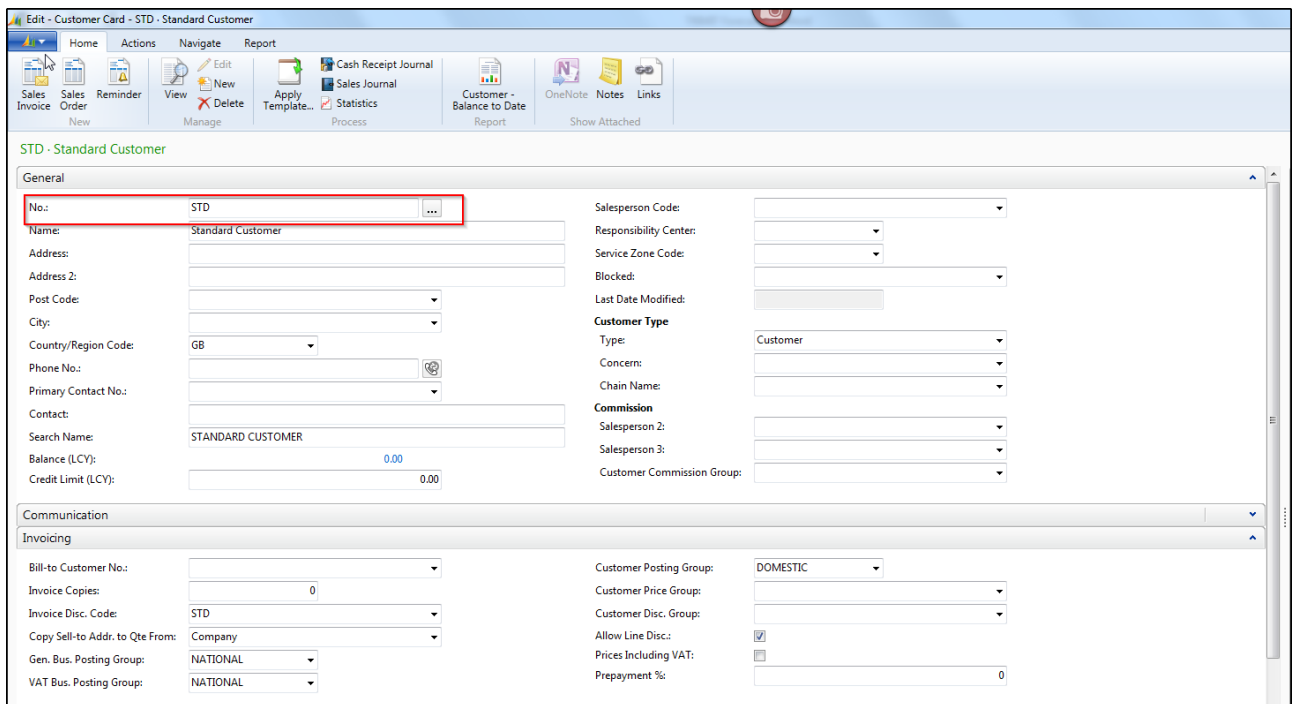


Fig. 12. Example of a Dummy Customer

In the **Sales & Receivables Setup**, we need to connect this dummy customer to the TRIMIT standard Customer. This way the system recognizes (blanket) orders for this customers as being not dedicated to a real customer. In fig. 13 we can see where to do this.

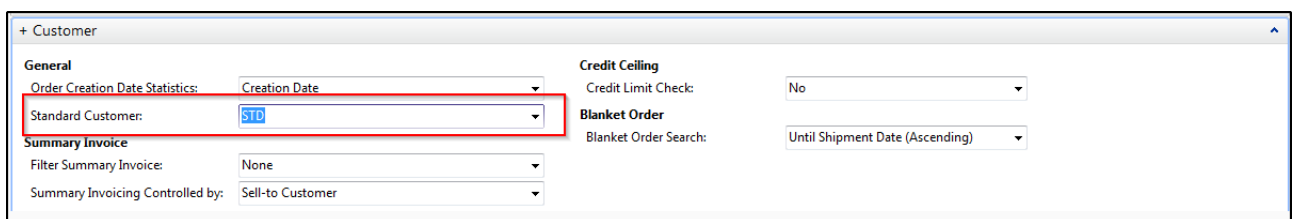


Fig. 13. Sales & Receivables Setup (FastTab +Customer).

In fig. 13, we can also see another Setup related to the use of Blanket Orders on behalf of Forecasting and that is called **Blanket Order Search**. This field is explained in paragraph [Blanket Order Search](#).

On the Master Card we have to establish that when this particular Master is ordered the quantities will be deducted from the appropriate Blanket Order. For this, a Boolean is available called **Check for Blanket Order** and can be found on FastTab **Misc.** on the Master Card (see fig. 14).

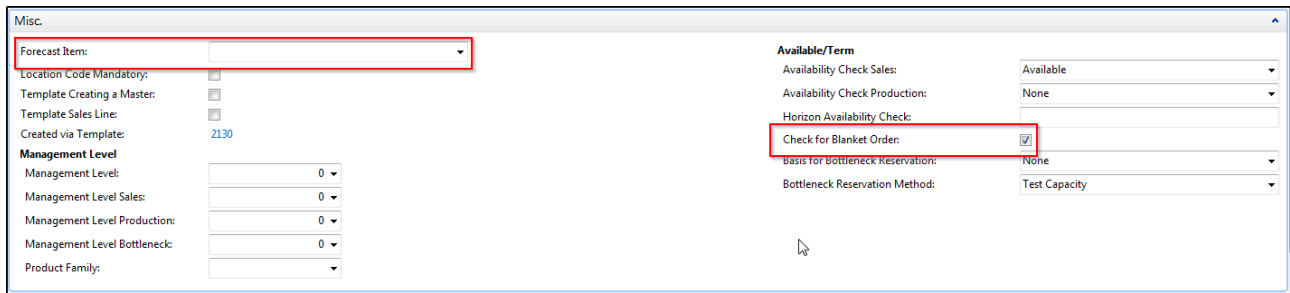


Fig. 14. Boolean 'Check for Blanket Order'.

In fig. 14, you can also see a field **Forecast Item**. Here you can enter an item no. to be used by the **TRIMIT Blanket Orders** when searching for a blanket order concerning the current item and customer. However, if the Master No. in the Order is identical to the No. in the Blanket Order, you can leave this field blank.

In paragraph [How to Work with Blanket Orders](#) you can see how you can use a blanket order for forecasting purpose. In the next paragraph, some setup is discussed that supports functionalities related to the use of Blanket Orders.

MRP SETUP & INVENTORY PROFILE SETUP

If Blanket Orders were used for forecasting, it would be useful to include them in the MRP calculation. Therefore, you must be certain that the checkmark **Skip Sales Blanket Order** in the MRP Setup remains blank.

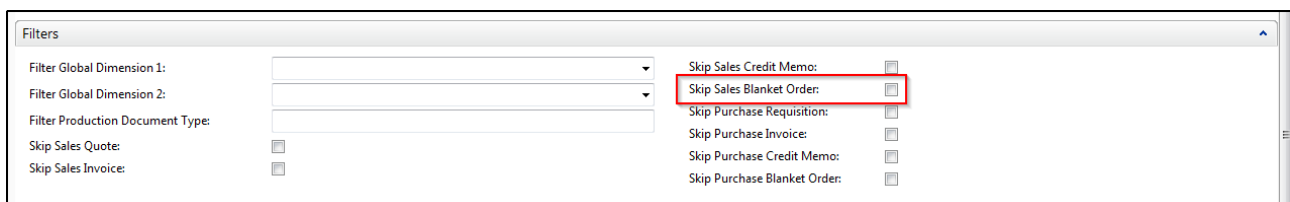


Fig. 15. MRP Setup (table 6037310) FastTab **Filters**.

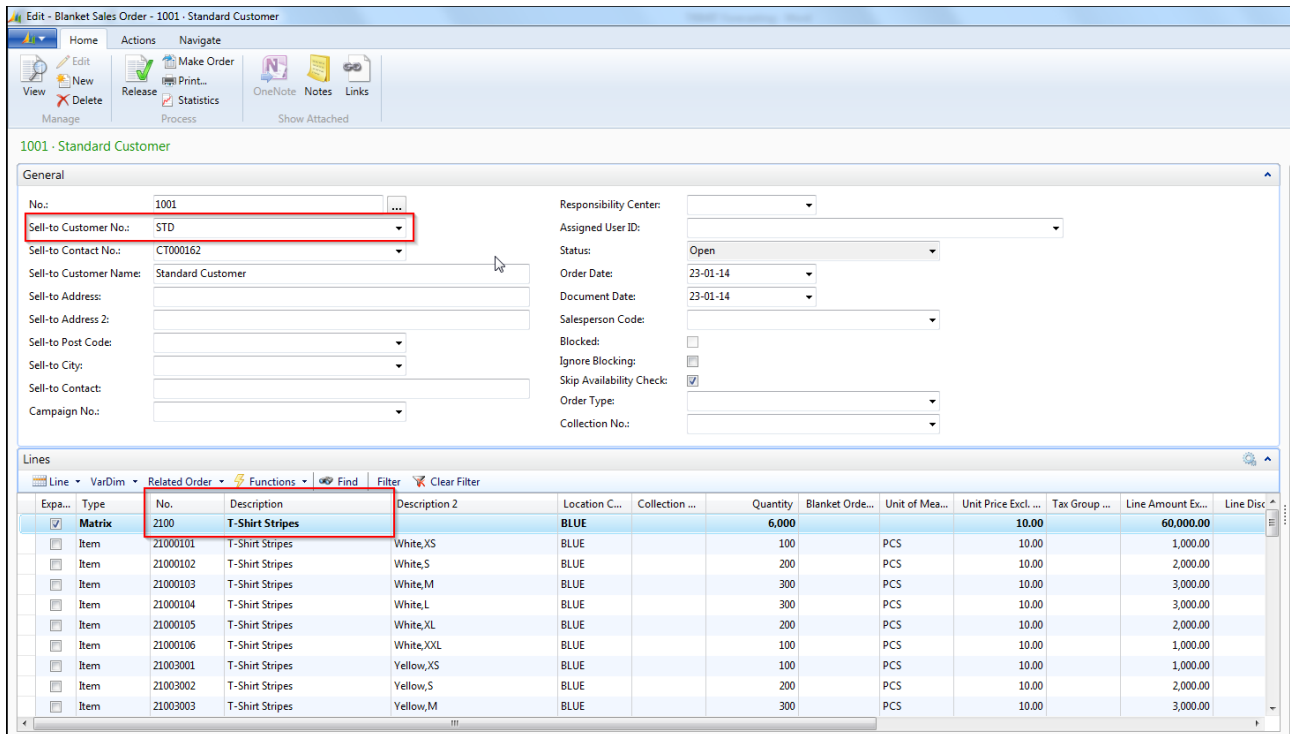
You also want to include these Blanket Orders in the Matrix Inventory Profile. That means that for appropriate users the Inventory Profile Setup must have a checkmark in the column **Include Sales Blanket Orders** as shown in fig. 16 for profile **ALL**.



Fig. 17. Matrix Inventory Profile (table 6037130).

Earlier, we have discussed several forecasting methods that can determine the quantities to purchase or produce. These forecasted quantities have to be entered in a Blanket Order for instance as shown in fig. 18. Notice that the Sell-to Customer in this Blanket Order is the Customer *STD* that we have dedicated as a standard (or dummy) customer. On the Sales Blanket Order Lines, the forecasted quantities are entered in this case for Master No. 2100 (T-Shirt Stripes).

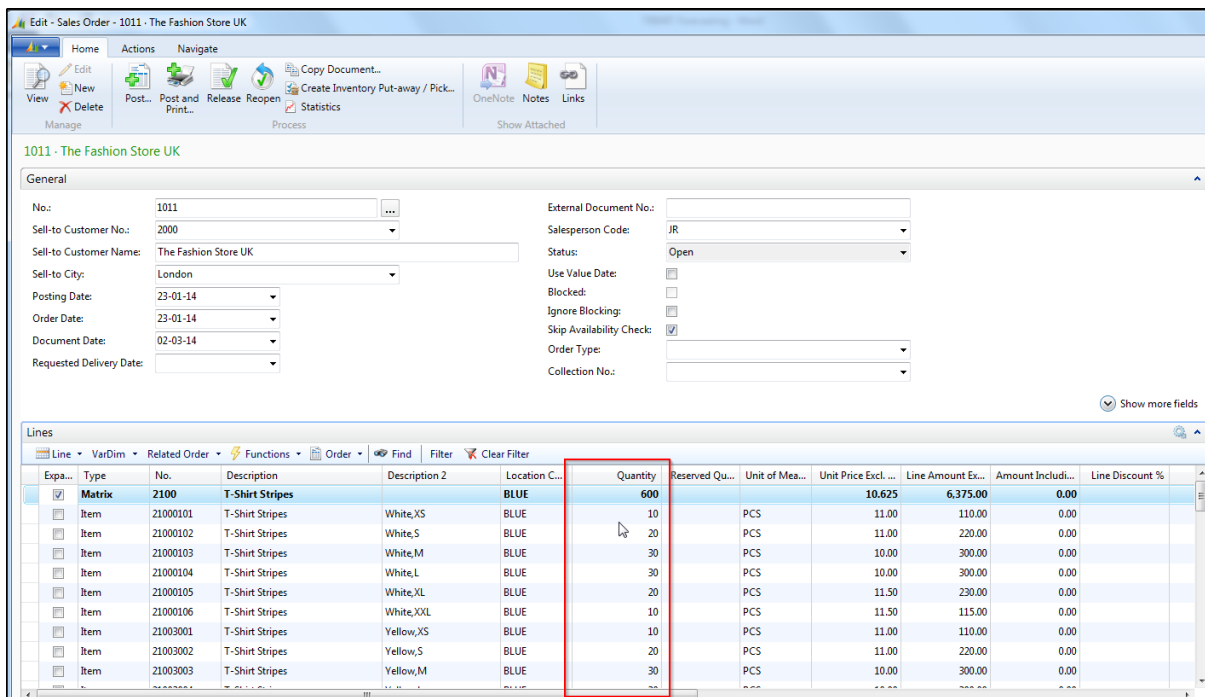
In the Demo Company, we have dedicated Master 2100 as the forecasted Master.



Line	Type	No.	Description	Description 2	Location C...	Collection...	Quantity	Blanket Order...	Unit of Mea...	Unit Price Excl...	Tax Group...	Line Amount Ex...	Line Disc...
1	Matrix	2100	T-Shirt Stripes		BLUE		6,000			10.00		60,000.00	
Item		21000101	T-Shirt Stripes	White,XS	BLUE		100		PCS	10.00		1,000.00	
Item		21000102	T-Shirt Stripes	White,S	BLUE		200		PCS	10.00		2,000.00	
Item		21000103	T-Shirt Stripes	White,M	BLUE		300		PCS	10.00		3,000.00	
Item		21000104	T-Shirt Stripes	White,L	BLUE		300		PCS	10.00		3,000.00	
Item		21000105	T-Shirt Stripes	White,XL	BLUE		200		PCS	10.00		2,000.00	
Item		21000106	T-Shirt Stripes	White,XXL	BLUE		100		PCS	10.00		1,000.00	
Item		21003001	T-Shirt Stripes	Yellow,XS	BLUE		100		PCS	10.00		1,000.00	
Item		21003002	T-Shirt Stripes	Yellow,S	BLUE		200		PCS	10.00		2,000.00	
Item		21003003	T-Shirt Stripes	Yellow,M	BLUE		300		PCS	10.00		3,000.00	

Fig. 18. Blanket Order of Standard Customer on behalf of Forecasted Quantities.

Let us create a Sales Order for this Master 2100 on behalf of customer 2000 (Fashion Store UK). This Sales Order may look like the one in fig. 19. Make sure that the Shipment Date is later than March 1 2014 (the year depends on the Working Date of the release of TRIMIT that you are working in), which is the Shipment Date of the Blanket Order. The Location must also be BLUE, which is identical to the Location of the Blanket Order.



Line	Type	No.	Description	Description 2	Location C...	Quantity	Reserved Qu...	Unit of Mea...	Unit Price Excl...	Line Amount Ex...	Amount Includi...	Line Discount %
1	Matrix	2100	T-Shirt Stripes		BLUE	600			10.625	6,375.00	0.00	
Item		21000101	T-Shirt Stripes	White,XS	BLUE	10		PCS	11.00	110.00	0.00	
Item		21000102	T-Shirt Stripes	White,S	BLUE	20		PCS	11.00	220.00	0.00	
Item		21000103	T-Shirt Stripes	White,M	BLUE	30		PCS	10.00	300.00	0.00	
Item		21000104	T-Shirt Stripes	White,L	BLUE	30		PCS	10.00	300.00	0.00	
Item		21000105	T-Shirt Stripes	White,XL	BLUE	20		PCS	11.50	230.00	0.00	
Item		21000106	T-Shirt Stripes	White,XXL	BLUE	10		PCS	11.50	115.00	0.00	
Item		21003001	T-Shirt Stripes	Yellow,XS	BLUE	10		PCS	11.00	110.00	0.00	
Item		21003002	T-Shirt Stripes	Yellow,S	BLUE	20		PCS	11.00	220.00	0.00	
Item		21003003	T-Shirt Stripes	Yellow,M	BLUE	30		PCS	10.00	300.00	0.00	

Fig. 19. Sales Order on behalf of Fashion Store UK of Master 2100 (T-Shirt Stripes)

If we go back to the Sales Blanket Order, we notice that the same quantities as ordered in the Sales Order are now deducted from the Blanket Order.

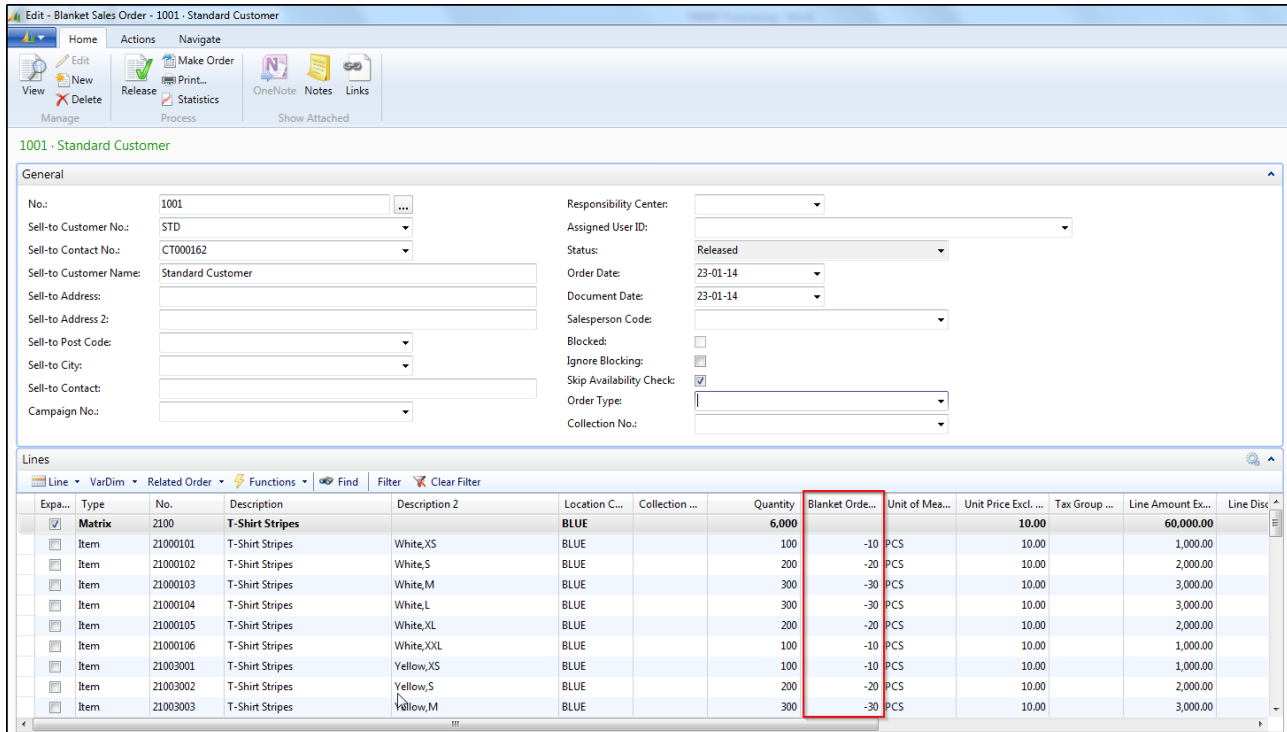


Fig. 20. Deduction from Blanket Order

This is the way how TRIMIT can handle quantities that are forecasted. In this case we have only one Blanket Order. It is possible, however, that we have multiple Blanket Orders for the same Master. This means that the system has to look for the most appropriate one. These search criteria are discussed in the next paragraph.

BLANKET ORDER SEARCH

It is possible to have multiple Blanket Orders used for forecasting. In order to determine from which Blanket Order the quantities should be deducted we have to do a so-called **Blanket Order Search**. The parameter **Blanket Order Search** determines which filter to be set at the Blanket Order Lines when using TRIMIT Blanket Orders. You can choose between the following options:

Blanket Order Search	Function
Until Shipment Date(Ascending)	The filter will be set from date zero to Shipment Date of the sales line. The search will be ascending.
Shipment Date	The filter will be Shipment Date and the search will be ascending.
Shipment Week	The filter will be the shipment week calculated on the basis of Shipment Date . The search will be ascending.
Shipment Month	The filter will be the shipment month calculated on the basis of Shipment Date . The search will be ascending.
ID	The filter will be Blanket Order ID .

Until Shipment Date (Descending)	The filter will be set from date zero to Shipment Date of the sales line. The search will be descending.
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If the parameter in the Sales & Receivables Setup **Blanket Order Search** <> *ID* , then the search direction In blanket orders are the following after the setting of the date filter according to the field **Blanket Orders Search** in Sales & Receivables Setup:

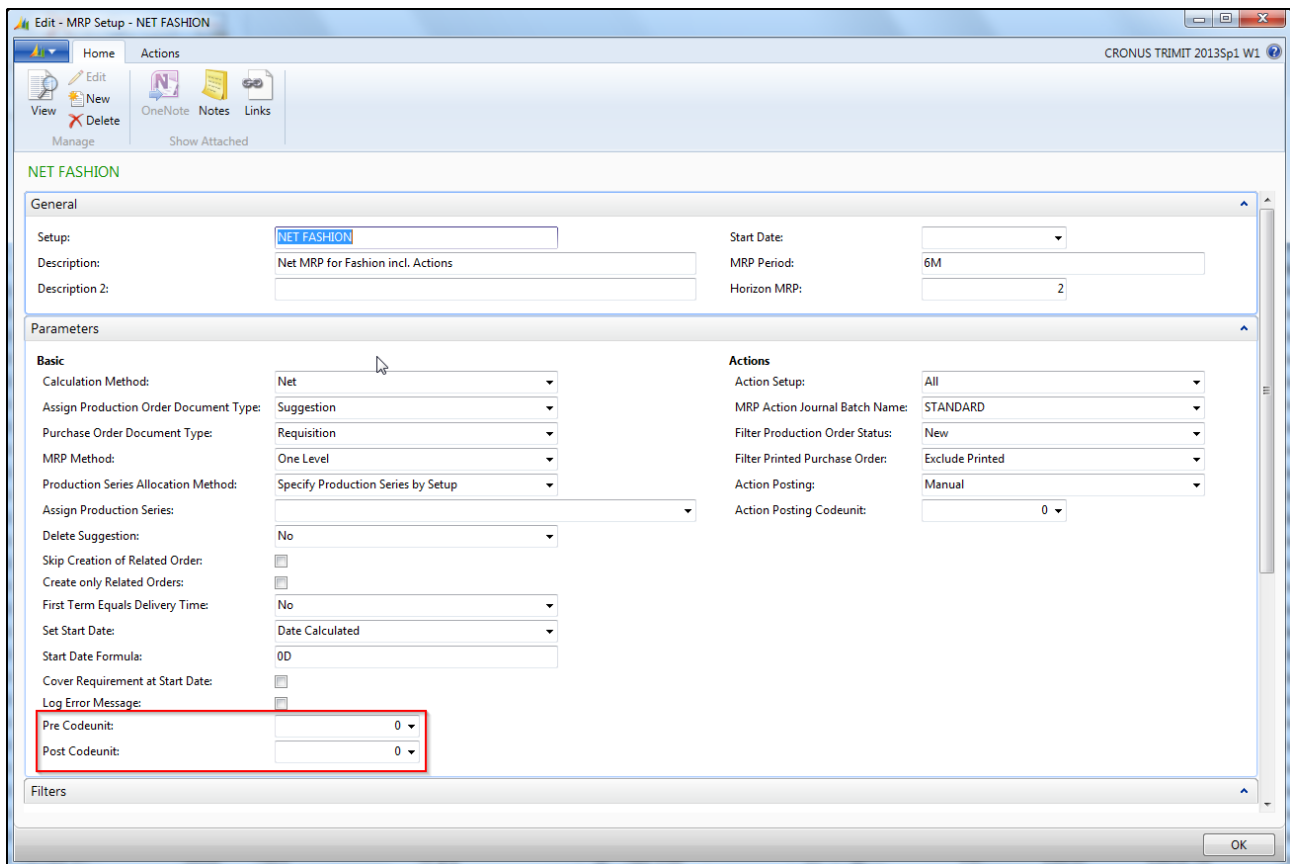
- *Sell To*
 - *Item No.*
 - *Forecast Item*
- *Bill To*
 - *Item No.*
 - *Forecast Item*
- *Concern*
 - *Item No.*
 - *Forecast Item*
- *Chain*
 - *Item No.*
 - *Forecast Item*
- *Standard Customer (Sales & Receivables Setup)*
 - *Item No.*
 - *Forecast Item*

If the parameter in the Sales & Receivables Setup **Blanket Order Search** = *ID*, then a direct search for the No. in the **Blanket Order ID** Field on the Sales Header FastTab **Shipping** is performed. This No. has be applied manually or by customized code.

INCORPORATE FORECAST IN TRIMIT MRP

In the previous chapters, we have discussed two simple ways how Forecasting is handled in TRIMIT. It must be absolutely clear that TRIMIT only supports the results of a Forecast: Forecasting Factor or Forecasted Quantities. However, if during a project more functionality is required in TRIMIT for the support of Forecasting TRIMIT may facilitate this. This is described in this Chapter.

Let's have a look at the MRP Setup. In the FastTab **Parameters**, you can find two fields in which you are able to enter objects of the type Codeunit: **Pre Codeunit** and **Post Codeunit**. These are shown in fig. 21.



The screenshot shows the 'Edit - MRP Setup - NET FASHION' window. The 'Parameters' tab is active, displaying various settings for the MRP setup. The 'Pre Codeunit' and 'Post Codeunit' fields are highlighted with a red box, indicating they are the focus of the figure. The 'Pre Codeunit' field is set to '0' and the 'Post Codeunit' field is also set to '0'. Other visible settings include 'Calculation Method' set to 'Net', 'Assign Production Order Document Type' set to 'Suggestion', 'Purchase Order Document Type' set to 'Requisition', 'MRP Method' set to 'One Level', 'Production Series Allocation Method' set to 'Specify Production Series by Setup', 'Assign Production Series' set to 'No', 'Delete Suggestion' set to 'No', 'Skip Creation of Related Order' set to 'No', 'Create only Related Orders' set to 'No', 'First Term Equals Delivery Time' set to 'No', 'Set Start Date' set to 'Date Calculated', 'Start Date Formula' set to '0D', 'Cover Requirement at Start Date' set to 'No', 'Log Error Message' set to 'No', 'Action Setup' set to 'All', 'MRP Action Journal Batch Name' set to 'STANDARD', 'Filter Production Order Status' set to 'New', 'Filter Printed Purchase Order' set to 'Exclude Printed', 'Action Posting' set to 'Manual', and 'Action Posting Codeunit' set to '0'.

Fig. 21. Codeunits on MRP Setup (page 6037310).

This way it is possible to develop some additional functionality that can support the forecasting. The code connected to the **Pre Codeunit** will run before the MRP calculation starts. The code connected to the **Post Codeunit** will run afterwards. Below two examples are given.

Example A: setting of Reorder Point and/or Maximum Inventory.

If the stock level of products behaves very dynamically, it can be useful to redefine logistic parameters as Reorder Point and/or Maximum Inventory based on the historical data of a previous period. Imagine that code has been developed as customization that calculates new values of the logistic parameters and enter them on the Master or Item Cards.

This would typically be code that needs to be run before you run a new MRP plan. Therefore, this Codeunit should be entered in the field **Pre Codeunit**.

Example B: *manipulation of the calculated figures.*

Let's say that we calculate an MRP plan based on Sales Lines. Let's assume that we would like to increase the resulting quantity with 50 and round it to the closest multiple of 100 automatically. This manipulation of the quantity is typically something that needs to be executed after the MRP has been taken place.

This would typically be code that needs to be run after you run a new MRP plan. Therefore, this Codeunit should be entered in the field **Post Codeunit**.

The examples above provide an idea of what is possible. There are many situations possible based on customer demands. Using the **Pre Codeunit** and **Post Codeunit** allows customization that keep the system upgradeable.

CONCLUSION

In this document, several types of forecasting are discussed. It does not have the pretention to be complete, but its intention is to provide some insight. Furthermore has been shown how it is possible to handle forecasting in TRIMIT. Basically forecasted quantities and a forecasting factor can be managed according to the standard. The exact calculation of these quantities or this factor is not a part of the standard. However, it is possible to incorporate this as customization using the **Pre Codeunit** and **Post Codeunit** in the MRP Setup. Customization this way will keep the upgradeability problems to a minimum.