



Infor Distribution FACTS 7.8.5 Advanced Inventory Management (AIM) Guide

Copyright © 2014 Infor

Important Notices

The material contained in this publication (including any supplementary information) constitutes and contains confidential and proprietary information of Infor.

By gaining access to the attached, you acknowledge and agree that the material (including any modification, translation or adaptation of the material) and all copyright, trade secrets and all other right, title and interest therein, are the sole property of Infor and that you shall not gain right, title or interest in the material (including any modification, translation or adaptation of the material) by virtue of your review thereof other than the non-exclusive right to use the material solely in connection with and the furtherance of your license and use of software made available to your company from Infor pursuant to a separate agreement, the terms of which separate agreement shall govern your use of this material and all supplemental related materials ("Purpose").

In addition, by accessing the enclosed material, you acknowledge and agree that you are required to maintain such material in strict confidence and that your use of such material is limited to the Purpose described above. Although Infor has taken due care to ensure that the material included in this publication is accurate and complete, Infor cannot warrant that the information contained in this publication is complete, does not contain typographical or other errors, or will meet your specific requirements. As such, Infor does not assume and hereby disclaims all liability, consequential or otherwise, for any loss or damage to any person or entity which is caused by or relates to errors or omissions in this publication (including any supplementary information), whether such errors or omissions result from negligence, accident or any other cause.

Without limitation, U.S. export control laws and other applicable export and import laws govern your use of this material and you will neither export or re-export, directly or indirectly, this material nor any related materials or supplemental information in violation of such laws, or use such materials for any purpose prohibited by such laws.

Trademark Acknowledgements

The word and design marks set forth herein are trademarks and/or registered trademarks of Infor and/or related affiliates and subsidiaries. All rights reserved. All other company, product, trade or service names referenced may be registered trademarks or trademarks of their respective owners.

Publication Information

Release: Infor Distribution FACTS 7.8.5

Publication date: August 20, 2014

Contents

- About this guide..... 7**
 - Intended audience..... 7
 - Related documents 7
 - Contacting Infor..... 7

- Chapter 1 AIM Overview 9**
 - Introduction 9
 - Goals 9
 - Implementation 9

- Chapter 2 Understanding the Numbers..... 11**
 - Usage 11
 - Lead Time 12
 - Review Cycle 13
 - Average Daily Usage 13
 - Safety Stock..... 15
 - Order Point..... 15
 - Line Point..... 15
 - Rank 16
 - Adjusters and Fences 16
 - T-Min Usage Adjuster 16
 - T-Min Order Point Adjuster 17
 - Average Shipment Quantity (ASQ) and Five-High Order Point Adjusters..... 17
 - Average Shipment Quantity (ASQ) Order Point Adjuster..... 17
 - 5-HI ASQ Order Point Adjuster 18
 - ASQ and 5-Hi ASQ Fences 18
 - Trending Parameters and Limits..... 18
 - Trend % Minimum and Maximum 18
 - Safety Stock Days Minimum and Maximum..... 18
 - Average Lead Time Minimum and Maximum..... 19

T-Min Rank for New Items	19
Chapter 3 Required Setup	21
Buyers.....	21
Warehouses.....	22
Vendors	22
Items	22
Warehouse/Items.....	22
Review Cycles	23
Replenishment Parameter F/M	23
Replenishment.....	24
When to place an order.....	26
What to order	26
Replenishment Actions	29
How Much to order	30
Arriving at ROQ	33
Economic Order Quantity (EOQ)	33
Rounding	34
Making Buying Targets	34
Creating the PO	35
Chapter 4 Review Cycle Setup.....	37
Surplus Stock.....	38
Suggested Purchase Orders (POs) and Transfers (TRs)	39
Transfers.....	40
Warehouse/Item F/M	41
Min/Max Technique	43
Lead Time Review	44
Usage Review	46
Rolled-Up Usage	47
Purchasing Lines	48
Exception Control Center.....	50
Process Warehouse Item Records	51
PO Static Control F/M	53
Chapter 5 Replenishment Parameters.....	55
Overview	55
Creating and Editing Parameters	56
Available Parameters.....	60

Alert on Non-Replenished Items with Hits	60
Alert on Expiring Parameters.....	61
Usage Alert Settings.....	61
Alert on Product Arriving Too Early/Too Late	62
Alert on Calculated VS. Frozen Order Point / Line Point / Order Quantity Variance .	62
Alert on Unconfirmed Purchase Orders	63
Alert for Purchase Orders Past Promise Date	63
Seasonality Analysis Alert	64
Threshold Minimum Usage Adjuster.....	64
Trending Parameters and Adjusters	65
Usage Months for Seasonal and Non Seasonal	65
Rank	66
Rank Parameters.....	66
Threshold Minimum Rank for New Items.....	67
Safety Stock	67
Vendor and Transfer ARP Safety Stock Parameters	68
Vendor and Transfer ARP Safety Stock Adjusters.....	68
Average Shipment Quantity (ASQ) Order Point Adjuster.....	69
Five-high ASQ Order Point Adjuster	69
ASQ/Five Hi Months (Usage Periods for ASQ and Five-Hi calculations).....	70
Threshold Minimum Order Point.....	70
Order Quantity Method (OQM) Parameters.....	70
Apply Rounding to Order Quantity	71
Rounding Value for ARP Vendor	71
Rounding Value for ARP Transfer	71
Abnormal Lead Time Parameters	71
Receipts Used to Calculate Lead Time.....	72
Vendor ARP and Transfer ARP Lead Time Parameters.....	72
Review Cycle.....	72
Freeze Order Point / Line Point / Order Quantity	73
Freeze Rank	73
Freeze Lead Time.....	73
Freeze Safety Stock	73
Chapter 6 Replenishment System Alert Details	75
Overview	75
Available System Alerts	75
IC-5HI 5Hi Max Dollar Increase Exceeded.....	75
IC-ABLTPO Abnormal Lead Time on a PO.....	76

IC-ABLTTT	Abnormal Lead Time on a Transfer	76
IC-ABUSAGE	Abnormal Usage	76
IC-ASQ	ASQ Max Dollar Increase Exceeded	76
IC-AVGLTV	Average Lead Time Limits Applied to Vendor	77
IC-AVGLTW	Average Lead Time Limits Applied to Warehouse	77
IC-CALCVAR	Calculated Value Deviates from Frozen Value	77
IC-EXPIRE	Replenishment Parameters Expiring or Unfreezing	77
IC-MAXRCV	Max Review Cycle for a Vendor has Been Exceeded.....	78
IC-MAXRCW	Max Review Cycle for a Restocking Warehouse Has Been Exceeded..	78
IC-NRWHITS	Non-Replenished Item with Hits	78
IC-PASTPD	PO Past Promise Date	78
IC-POCONF	Unconfirmed PO	79
IC-POEARLY	PO to Arrive Too Early.....	79
IC-POLATE	PO to Arrive too Late for Demand	79
IC-RCTR	Missing Warehouse Transfer Review Cycle Record	79
IC-RCV	Missing Vendor Review Cycle Record.....	80
IC-SEAS	Seasonality/Trend Flag Questionable.....	80
IC-STKOUT	Item Stock Has Been Exhausted in this Warehouse	80
IC-STLSPO	Special Order Suggested PO is Stale	80
IC-STLSTR	Special Order Suggested Transfer is Stale.....	80
IC-TREARLY	Transfer to Arrive Too Early.....	81
IC-TRLATE	Transfer to Arrive too Late for Demand	81
IC-TRNDLIM	Seasonal Trending Limits Applied	81

About this guide

This guide describes workflow, concepts and procedures for using the Infor Distribution FACTS Advanced Inventory Management.

Intended audience

This guide is for FACTS end users, managers, in-house analysts, and trainers who require an understanding of the product and how to use it.

Related documents

You can find the documents in the product documentation section of the Infor Xtreme Support portal, as described in "Contacting Infor" on page 7.

For information about other Infor Distribution FACTS modules or basic usage information, see the other users guides in the Infor Distribution FACTS PDF Library. Access these documents from the bookmarks of this document: FACTSDocNavigation.pdf.

Contacting Infor

If you have questions about Infor products, go to the Infor Xtreme Support portal at www.infor.com/inforxtreme.

If we update this document after the product release, we will post the new version on this Web site. We recommend that you check this Web site periodically for updated documentation.

If you have comments about Infor documentation, contact documentation@infor.com.

Chapter 1 AIM Overview

A red square containing the white number '1', indicating the chapter number.

Introduction

FACTS has been enhanced to implement Advanced Inventory Management (AIM) procedures for more effective replenishment and management of purchasing. The new AIM model includes differences in how data is stored and maintained, the available parameter controls, and the tools used to do procurement and warehouse transfers.

This implementation guide attempts to organize material in a format that assists those individuals responsible for preparing for and coordinating the implementation of the AIM enhancements. The information in this document is presented in a logical manner to assist in understanding the prerequisites to implementation and the sequence of events required for a successful implementation.

Goals

The purpose of implementing AIM procedures and processes is profitability and customer satisfaction. Previously inventory measurement was based on turns but the turns measurement does not necessarily mean profitability. The precision that comes from AIM processing ensures that your business has the right inventory when your customers want it. The ability to consistently provide customers with inventory when it is needed creates greater customer loyalty and eliminates the 'lowest-price game' by providing reliability as a tangible value.

Implementation

The key to successfully implementing AIM is data integrity. The data used for AIM processing must be accurate and complete. Software is good at math and analysis, but not so good at knowing if the data is right. Buyers must become data experts, or the math the system provides will not yield the correct results

It is recommended that you work with your FACTS business consultant in the process of implementing the AIM functionality. Getting the best results requires a thorough understanding of the many principles of inventory replenishment and the parameters that are available. This implementation guide can help you analyze your company requirements and select the proper

parameter settings; however, your business consultant can provide valuable input and assistance in this process.

In many ways, the AIM enhancements turn your buyer and inventory managers into data managers. For the calculations to work most effectively, they must have excellent data feeding the replenishment calculations, and it's the responsibility of the entire organization to ensure the data is accurate and complete. The buyer's first job is to review and update the data so it yields the best results.

There are 3 basic numbers that feed the replenishment calculations: Usage, Lead Time, Review Cycle.

Usage

Usage is the starting point of all the replenishment values. A simple definition of usage is sales (or lost sales) to customers that we delivered or expected to deliver out of our stock, and that represent a potentially-repeatable event.

Usage is recorded at the warehouse that "should" have shipped the goods, and then is "rolled up" to any "distribution center" (DC) warehouses that restock it.

Each individual transaction/sale/lost sale is individually counted as usage unless it's flagged as an "exceptional sale". This flag is available in order entry, and can be overridden later using the Usage Review program.

When a sale is known not to be a repeatable/normal event, it should be flagged as exceptional so it doesn't feed into the usage for that warehouse/item. Training sales reps to properly identify and flag exceptional sales during the ordering process will save time and yield the best results. If you determine at a later point that a sale was exceptional, it can be corrected in Usage Review.

It is also important that the usage be recorded on the proper date. Order entry allows the user to override the default usage date (Order Date), and Usage Review allows you to change the usage date on any transaction.

When returns are processed, it's important that the usage be updated (or not updated) correctly. For example, if the user simply bought too many, the amount being returned should be flagged to update usage (i.e. reduce usage) on the date of the original order – the goal being for the usage values to reflect what we delivered or expected to deliver from stock.

Another example is if we shipped the wrong item. In this case, the credit should remove the original usage on the original date, and the replacement should update usage for the correct item with a

usage date of the original order. Again, the net result is that usage reflects what we delivered or expected to deliver, at the time we should have delivered it.

Another example is if the items were not acceptable to the customer, and they returned them and bought them somewhere else. How usage should be handled in this example depends on what you expect to happen in the future with this customer. If the customer has been lost forever, you may want to credit the usage because you do not expect the sale to be repeatable. If you believe that you can/will win back this customer, you probably do not want to credit the usage on the return.

Lost sales are important to record. They help you understand what you're doing wrong, and they enable you to make adjustments to avoid losing future business. To facilitate recording lost sales, FACTS has Lost Sale Entry on a right-click menu available from most places in FACTS.

Not all lost sales should record usage. Remember that the intent of usage is to capture what you should have shipped and is a repeatable event. If you lose a sale due to pricing, for example, and you don't expect to win future business from this customer, the lost sale should be flagged as exceptional so it does not update usage. However, if you lost it due to a product being unavailable, and you expect to (or hope to) win the business in the future, it should be recorded as a normal (i.e. not exceptional) lost sale.

Another example is if the customer was ordering multiple items and you lost the sale due to one of the products being unavailable, you should enter the lost sales for each of the items they intended to order.

Getting usage right is the first job of your entire organization as usage factors into every one of the replenishment controls. Train everyone to understand the importance and meaning of usage.

Lead Time

Lead time is the time between placing an order and when the goods are available to fill orders, and it's an important factor in replenishment.

FACTS will automatically calculate the average lead time for each item from the Ordered date on POs and transfers and the receipt dates. That means that it's important that these dates be accurate.

If you enter a PO but don't send it to your vendor for several days, the ordered date should be updated to reflect the date you sent the order – failing to update the date will result in a lead time that is longer than it should be.

Also, not all POs should be included in the average lead time calculation. For example, if you place a critical PO for an item and choose to have it expedited, the lead time on that PO is not an accurate reflection of the vendor's performance for normal replenishment purposes. There is a flag in PO Entry to indicate that the lead time should not be updated by this PO.

If you forget to flag a PO properly to ignore lead time, it can be done after-the-fact by using the Lead Time Review program.

How long it takes to get an item from your vendor becomes a critical part of determining when to place the order for the item, so it's important to get the data right.

Review Cycle

Review Cycle is the expected time in days between POs to a vendor or warehouse transfer tickets for a distribution center (DC) warehouse. Thought of in another way, it's the number of days' supply of stock you expect to order each time you place a PO.

Review cycles must be setup for each authorized replenishment path (ARP) in FACTS. An ARP is each vendor or DC that replenishes a stocked item in a warehouse.

Review Cycle Setup is the primary program used in FACTS to setup and maintain review cycles.

Longer review cycles mean more time between orders and therefore larger order quantities.

From these three basic values (usage, lead time and review cycle), we develop the replenishment controls for each item. These values are updated daily by FACTS background processor programs that you schedule typically to be run after hours. Having these values updated daily allows FACTS to very quickly respond to changes in sales.

Average Daily Usage

Average Daily Usage (ADU) is calculated from the usage data discussed above, and represents what we should expect to sell, on average, of the item today.

FACTS supports 3 different methods of calculating ADU, set in Warehouse/Item F/M:

- Backward
- Forward
- Trend

Items which should sell consistently throughout the year, without changes due to changing seasons, should be set as usage type Backward. For these items, we evaluate what has happened in the immediately-preceding time period to determine what we expect to sell today.

If an item's sales are driven by the time of year (e.g. it sells primarily in the spring or fall), it should be set as usage type Trend. For these items, we look at the time period upcoming but 1 year back and apply a trend % to it to determine what we expect to sell today.

Trend Example: If today was May 1, 2013, and we had the following Average Monthly Usage (AMU) values summed from the usage information described above:

Feb 2012	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan 2013	Feb	Mar	Apr
1	6	10	8	1	0	0	0	0	0	0	1	2	15	20

(For this example, we will use a 3-month time period for calculating ADU, but ADU can be calculated on a user-selectable time-period based on the item's rank – more on that later).

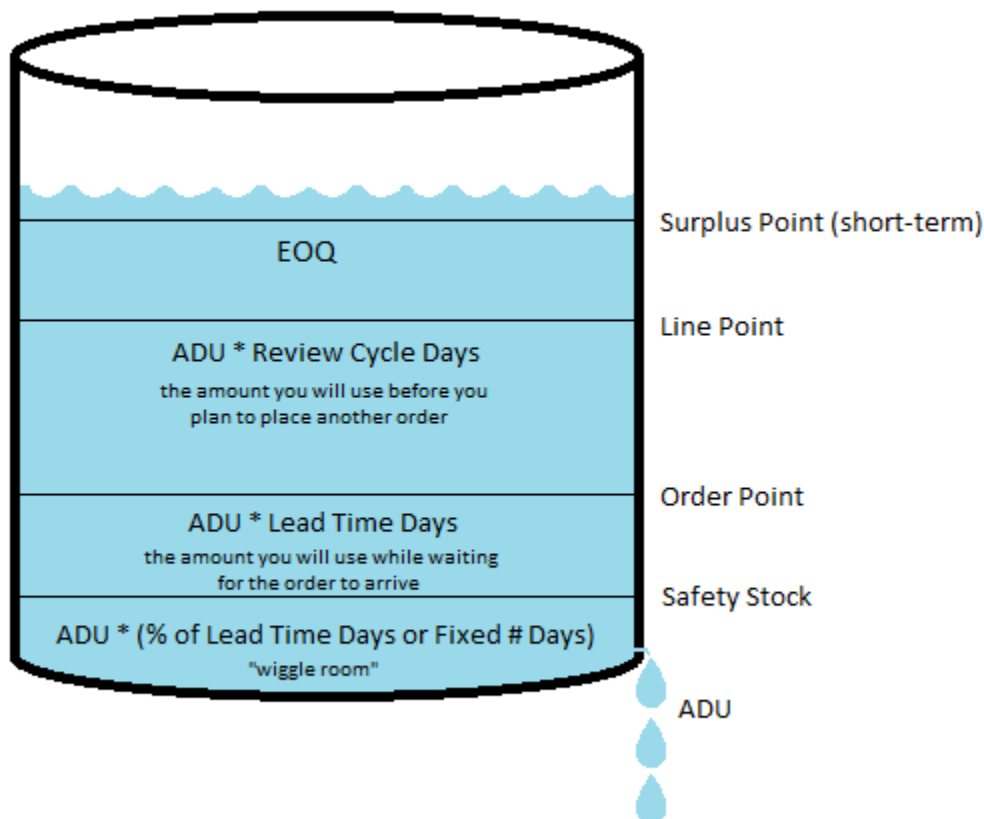
Also, while it's useful for us to use examples of months, it is important to remember that FACTS maintains usage on a daily basis - the AMU values are calculated on 30-day blocks going back from yesterday.

In this example of trending, FACTS first looks at the immediate prior 3 months (**Feb-Apr 2013**) and gets an average monthly usage (AMU) of 12.3 (which is 2+15+20 divided by 3). Then it looks at the same time period a year ago (**Feb-Apr 2012**) and gets an AMU of 5.67 (which is 1+6+10 divided by 3). Those numbers indicate that we are running at 217% year over year ($12.3/5.67$) – this is the trend %.

Finally, we look at the upcoming 3 months from last year (**May – July 2012**) and see its AMU was 3 (which is 8+1+0 divided by 3) and apply the trend % to it. This gives us an AMU of 6.51 (which is 217% of 3). Dividing 6.51 by 30 gives us an ADU of .217.

The Usage type of Forward is the same as Trend with a trend % of 100% - i.e. it doesn't calculate a trend percentage and simply looks at the upcoming timeframe a year ago to determine what we expect to sell today.

To visualize how all of these number work together, picture each item in a warehouse as a bucket. The water in the bucket is your inventory. There is a hole in the bottom of the bucket allowing water to escape. The rate at which the water escapes is your average daily usage. The levels in the bucket illustrate the replenishment values:



Safety Stock

Safety Stock (SS) is the first, base stock value. It's the amount of stock we want to keep as "wiggle room" to avoid stockouts if we place an order late or the vendor is slow in shipping or if we get an unexpected sale, etc.

FACTS' replenishment will use the numbers explained above to predict when the right time is to place an order so that the goods arrive before we hit safety stock. But business doesn't always conform to averages. As a result, it's normal and expected that you will occasionally use safety stock. However, if you are often stocking out, you likely are not carrying enough safety stock. Similarly, if you are never dipping into safety stock, you are likely carrying too much.

Safety stock is calculated from Safety Stock Days (SSD) and can be established as either a % of lead time or as a fixed number of days supply.

When safety stock is calculated as a %, we calculate a number of days supply (SSD) from the lead time (LT). So if LT is 10 days, and safety stock is 25%, SSD is 25% of 10 days, which is 2.5 days supply for safety stock.

The actual safety stock quantity is then safety stock days (SSD) times ADU.

Safety stock parameters control how much safety stock you keep. Greater consistency generally equates to lower safety needs. It is important to consider the impact of lead time on safety stock. For the safety stock parameters, set generally-acceptable values at the Company or Warehouse level, and override for individual vendors and items as needed.

Better lead time values, allow you to reduce safety stock, as does being more proactive with purchasing. When lead times are sporadic, or when you order infrequently causing lead times to be based on old data, or when you are inconsistent or slow placing orders, greater safety stock values will be needed to protect against stock outs.

Order Point

The next value above safety stock is Order Point (OP). Basic Order Point is the stocking level at which, if we place the order the day we reach OP, we should expect to get the inventory before we start using our safety stock. Logically, Order Point is based on the amount we expect to sell during the lead time.

Order Point = Safety Stock + (Lead Time * ADU)

As soon as any replenished item from a vendor hits order point, it's time to cut a PO to that vendor, or we risk running out. Order Point is why it's important to have accurate lead times.

There are several ways we may adjust order point to achieve better results, but we will cover those later.

Line Point

Building from order point, we get to Line Point (LP). Line Point is essentially the target stocking level we want to reach when we place the order and is based on the ARP's Review Cycle (RC). If our

review cycle is 14 days, line point will be based on 14 days of usage, or the amount we expect to sell before we plan to place another PO with this vendor.

Line Point = Order Point + (Review Cycle * ADU)

When we do place an order for an item, we order enough to go from current stocking levels up to line point. Line point is why it's important to establish realistic and accurate review cycles for each ARP.

So the three values: Safety Stock, Order Point and Line Point, build on each other. If safety stock changes, it impacts both OP and LP. If OP changes, it also changes LP. If ADU changes, it impacts all of them. If lead time changes, it will impact potentially safety stock, and it will impact OP, which then changes LP. Review cycle only impacts LP.

When issues occur with the calculated replenishment values, it's important to understand the relationship between these numbers so you can determine the best way to address the issues and get the results you want.

For example, if you change ADU, the final impact to LP will be significant because it factors into each of the other values, whereas changing order point will not impact safety stock, and its impact on LP is not compounded.

Rank

Each item in the warehouse is assigned a rank from A to E to represent that item's relative impact on the warehouse operations. 'A' ranked items have the most activity (i.e. hits, orders, transfers, etc.), and 'E' ranked items the least.

Ranks are calculated and assigned automatically each night, based on parameter settings explained later in this document.

There are many settings and controls that can be adjusted by an item's rank. This allows the system to work more efficiently. We will cover each of the Rank-specific settings later in this document.

Adjusters and Fences

There are multiple ways to adjust or limit the values above. Each can be used to address different issues with the calculated values. Most of the values below require expiration dates. It is good practice to set the expiration dates to reasonable lengths of time and to enter memos with each to remind you why the value was originally entered.

T-Min Usage Adjuster

"T-Min" is a term used to indicate a threshold or minimum limit placed on a value. In the case of usage, T-Min is the lowest value we will use when calculating usage. This value is stored as a monthly number, but is used to determine the minimum ADU for an item by dividing it by 30 days.

When FACTS calculates ADU, it then checks to see if a T-Min Usage has been established. If so, and the T-Min is higher than the calculated ADU, ADU is forced up to the T-Min.

This can be especially helpful for newly-established items where there is not sufficient history to calculate a reliable ADU. If your sales team believes they will sell 10 units of a new item per month, setting up a T-Min Usage of 10 will cause FACTS to act (for purchasing purposes) as if you were selling 10 units. However, if sales take off, and you are actually selling 20 per month, the T-Min will be ignored.

Since T-Min Usage changes ADU, it cascades to impact safety stock, order point and line point. As a result, it's not the best way to establish minimum stock levels. It truly causes FACTS to act as if usage was different.

T-Min Order Point Adjuster

In the same way that T-Min Usage props up usage when it falls below the T-Min, T-Min Order Point props up OP when it falls below the T-Min.

When stocking levels drop to order point, it's time to place a new PO, and OP also factors into line point. Setting a T-Min OP can be useful when you want stock not to drop below a specific point, for example if you have a customer commitment to keep a minimum quantity on the shelf.

T-Min order point will not change safety stock, and it doesn't change usage, so if the T-Min OP is used, it moves LP up the same amount as it moved OP.

Always establish an expiration date and a memo indicating why you set a T-Min OP. The system will alert you when the T-Min OP is about to expire so you can verify that the reason for it is still valid before extending it.

Average Shipment Quantity (ASQ) and Five-High Order Point Adjusters

Order Point is a function of usage and lead time, both of which can fluctuate and be unevenly distributed. The order point can end up smaller than a normal, large order from a big customer or smaller than the normal average shipment quantity of larger orders. ASQ and Five-High order point adjusters help eliminate this circumstance.

Average Shipment Quantity (ASQ) Order Point Adjuster

ASQ is an automatic adjuster to order point when it's turned on, and it is calculated by the system.

ASQ is the average of all shipments over a specified time frame. If that average is higher than the calculated order point, order point will be increased to ASQ.

This adjuster is especially helpful when you have an item that sells in large quantities but at fairly large intervals. In that case, the math to calculate OP can result in a stock level that is insufficient to fill your average order. Turning on ASQ will remedy that by increasing order point.

5-Hi ASQ Order Point Adjuster

5-Hi ASQ is similar to ASQ, except that it takes the 5 highest shipment quantities over the specified time period, drops the highest as an outlier, and averages the remaining 4. If the 5-Hi ASQ is greater than the calculated OP, OP will be propped up to the 5-Hi value.

5-Hi ASQ is helpful in cases where you have a few customers who buy in large quantities but many who buy in smaller quantities. In that scenario, basic ASQ will not be high enough to cover the purchases from your large customers.

ASQ and 5-Hi ASQ Fences

For both ASQ and 5-Hi ASQ, there is a maximum cost increase setting that helps limit how large of an increase to OP is allowed.

For example, for an item that costs \$10 EA: If the calculated OP is 100, and ASQ is 130, the value of the increase is \$300 (i.e. $30 * \$10$). If you established a maximum increase of \$250, ASQ would not be applied, and an alert would be raised for the user.

Trending Parameters and Limits

Trending parameters and limits allow AIM processing to automatically adjust for differences that can be measured year over year. For example, trending parameters and limits are used to calculate ADU for seasonal items. You can use these parameters to establish reasonable limits on what the system is allowed to do without human intervention. The system allows you to set the main limits at Company Level, and override as needed, with expiration date and memo.

Trend % Minimum and Maximum

When calculating usage for an item with usage type Trend, it's not unusual for the math to calculate extreme values, especially at the beginning or end of a season or when there is minimal data to use. For example, if a very large order (for example 1000 EA) was placed at the very beginning of the season this year, but total orders up to this point last year were only 10 EA, a trend of 10000% would be calculated, and the system would indicate to order unreasonably high quantities.

If the years were reversed, the trend would be 1%, causing FACTS to order far too few.

As the season progressed of course, these numbers would work themselves out to reasonable, accurate numbers, but to avoid unrealistic values, you can establish fences for the minimum and maximum trend %s allowed.

Safety Stock Days Minimum and Maximum

For items with very large or very short lead times, the basic math can end up calculating safety stock values that are not reasonable. For example, if lead time were 180 days, and safety stock % was 50%, the system would calculate safety stock as a 90-day supply, causing stocking levels to soar.

It is important to establish reasonable limits on the number of days supply of safety stock the system will calculate and use.

These minimums and maximums can be set differently for items purchased from vendors and those replenished from a DC warehouse.

Average Lead Time Minimum and Maximum

Lead time is a measurement of a vendor's (or warehouse's) past performance to predict future performance. For lead time, recent activity is more relevant than old activity because things change over time. Inaccurate lead times cause Line Point (and therefore recommended order quantities) to be unusual or unreasonable.

There are some scenarios in which the normal calculated average lead time should not be used 'as is' when calculating order point. A straight application of lead time assumes that you place an order for the item, and it arrives before you place the next order. For items with long lead times, this may not be the case – you may have several orders in various stages at the same time.

In such cases, for the replenishment math to calculate reasonable order points, you must limit lead time to more reasonable values. For example, if actual lead time is 90 days, but you place orders 30 days apart, you may want to set a maximum lead time to 30.

If the actual lead time is 1 day, order point may be calculated lower than you would like, so establishing a minimum lead time somewhat higher may result in more realistic values.

Minimum and maximum lead time fences can be set differently for items purchased from a vendor and those replenished from a DC warehouse.

T-Min Rank for New Items

Because newly-established items have little or no usage, the automatic ranking would immediately push them down to an E rank, causing the replenishment controls to stop most purchasing activity.

Previously this was countered by "mocking-up" usage for the item (i.e. entering made-up usage numbers for the months prior to taking on the item), but since Rank is now based on document hits, that process will no longer work.

Instead, you can establish a minimum Rank for new items and a number of months since inception that an item should be considered "new". If FACTS calculates a rank lower than the T-Min Rank, it will override it and assign the T-Min. If sales of the item quickly take off, the Rank will increase as warranted.

After the item has been established for more than the specified # months, the T-Min Rank will no longer be applied.

Now that you have a working understanding of the replenishment values and how they are calculated, we need to move on to getting FACTS replenishment running.

There are many parameters and settings that are relevant to FACTS replenishment, and we will cover all of them in this document, but let's start by focusing on the basic ones required to get underway.

In inventory processing there are always exceptions. The key is to establish the primary rules at as high of a level as possible, then make strategic overrides where needed. Managing these settings becomes one of the primary responsibilities of the buyer.

Buyers

Buyer codes can be assigned in multiple ways, but they refer to a person or group who is responsible for replenishment tasks, including purchasing from vendors, initiating warehouse transfers, and handling returns to vendors.

To setup buyer codes, use Buyer Code F/M on the Purchase Orders, Infrequent File Maintenances menu. You establish a code and a name or description.

As you will see below, buyer codes will be assigned to specific replenishment paths (ARPs) and as default buyers for specific warehouse for purchasing that is not related to an established ARP. When FACTS needs to present replenishment-related information to a user, the relevant ARP is used to find the buyer who should be notified.

If your buyer codes are setup for individuals (as opposed to groups or teams) you can specify the FACTS user code the buyer code belongs to. This will allow FACTS to default the buyer code, and it allows FACTS to find the buyer's email address from their user settings.

You may also specify additional emails addresses associated with the buyer code. The email addresses are used to deliver replenishment-related alerts if your system has the Internet Toolkit.

Finally, we haven't discussed the Exception Control Center or alerts specifically yet, but Buyer Code F/M is where you indicate whether replenishment-related alerts will be delivered to the buyer code and whether they will be delivered to the Exception Control Center and/or to email.

Warehouses

Obviously you will have warehouses setup, but for the purposes of replenishment, there is a new set of fields for Default Buyer. Each warehouse should have the default buyer and default review cycle setup. These fields allow FACTS to effectively work with items that are not replenished or that do not have an established ARP.

Choose a buyer code that is regularly used by someone who understands the items in the warehouse.

Note that this is not a substitute for establishing the Review Cycle records for known ARPs.

Vendors

There is no special setup required for vendors, but it is called out here because vendors are a significant part of the replenishment process. There are 2 fields in Vendor F/M that are important to handling customer returns: Default Action and Consolidation Warehouse. If you are implementing the Customer Returns functionality, you should review the settings for these fields.

Items

Item F/M has several important fields that impact FACTS replenishment, including Primary Vendor, Purchasing Line, and Item Type.

Items are presented to the user based on the primary vendor setup in Item F/M. Purchasing Line also plays a role but it not required – we will discuss purchasing lines in more detail later in this document.

Item should be reviewed to be sure the Primary Vendor is properly assigned for all items.

Item Type is also important when dealing with normal replenishment. Non-Stocked and Uninventoried items will not be presented for purchase unless there is a special order. When an item is flagged as Stocked, it will be presented for normal replenishment in warehouses in which the Replenish flag is set.

Warehouse/Items

Warehouse Item F/M contains several very important values that control FACTS replenishment, including the Replenish Flag, Usage Method, and the warehouse/item's ARP.

We have provided several tools for managing these flags, including Warehouse Item F/M, Create Warehouse/Item Records, Transfer/Change Item Codes and Process Warehouse Item Records.

The Replenish Flag must be set if the item's replenishment is to be handled by FACTS. Keeping this flag up to date will ensure that the correct items are presented for replenishment.

Usage Method was discussed earlier and is important to getting good results. The default value is B-Backward, and this setting should be used for all items that are not truly seasonal items. T-Trend

should be used for seasonal items. There is little use for F-Forward, but some unique situations may benefit from this setting.

Finally, establishing the correct replenishment paths for each warehouse/item is critical. If set to 'Direct from Vendor', the ARP will be the primary vendor setup in Item F/M. Otherwise, specify the distribution center warehouse that is responsible for replenishing the item in this warehouse.

Without accurate ARPs, the replenishment processes will not function effectively.

Review Cycles

The review cycle record for each ARP tells FACTS two critical pieces of information used in the replenishment process: the Buyer Code responsible for each item and the # days in the review cycle. There are other values that can be established, like buying targets, but we will cover those later.

Review Cycle Setup looks at all replenished items in the warehouse and presents the user with all of the valid ARPs in that warehouse. Any missing records will be displayed with asterisks (*) in the columns.

Each ARP displayed shows the number of items in that ARP – this allow the user to easily eliminate invalid ARPs by going to the warehouse/item record and correcting the ARP or to Item F/M and correcting the primary vendor.

For each displayed ARP, setup the buyer code responsible for replenishment from that ARP and the review cycle for that ARP. The review cycle is the number of days you normally have between replenishment orders from that vendor or warehouse. Setting minimum/maximum review cycle values prevent the calculation of review cycle from coming up with a value that is not reasonable for your business. You don't want a review cycle of 1 day – you would be placing a PO every day, nor a review cycle of 500 days. Refer to the previous section of this document for a more thorough explanation of how the review cycle impacts replenishment values.

Replenishment Parameter F/M

There are many settings available in Replenishment Parameter F/M, and we will explain all of them later in this document. This section describes the basic or required setup that needs to be done.

When you first run Replenishment Parameter F/M, basic default values for all required fields will be created. For reference, the default values are stored in the XML file meta\ICREPL_defaults.xml.

Required setup involves establishing company-wide settings. Later you can return to setup override values at warehouse, vendor, item, etc., levels, but for now, we need to establish adequate company-level values.

The default values are generally acceptable for most systems, but you should review the following:

Rank, Parameters: These settings determine how FACTS calculates and assigns warehouse/item rank. Refer to the detail replenishment parameter section of this document for specifics on the possible values.

Usage, Usage Months for Seasonal and Non-Seasonal: The default values for these are adequate for most situations. This is where the value for the number of months used to calculate AMU and ADU is derived from (see the sample usage calculation in the previous section).

Safety Stock, Vendor ARP and Transfer ARP Parameters: These determine how safety stock is calculated. Refer to the detail replenishment parameter section of this document for specifics on the possible values.

Lead Time, Receipts Used to Calculate Lead Time: When calculating lead time, more recent receipts are more meaningful than older receipts. This setting instructs FACTS how many receipts to use and how far back to look at the receipts.

Replenishment

With the basic setup complete, you can proceed to the basics of replenishment.

Replenishment basically comes down to answering three questions: When should I place an order/transfer for an ARP?, What items should I order when I do place the order?, and How much of each item should I order?

All of the replenishment controls and values exist to answer these three questions quickly and accurately, and the Buyer's Control Center is the primary place the questions are answered.

Buyer's Control Center Screen:

Wh	Vendor	Vendor Name	Purchasin...	Review Cycle	Ach Amt	Target A...	Ach Wgt	Target Wgt	Ach Cubes	Target Cubes	Spec Ord	Backorder	Critical	Neg PNA	Replenish	Sugg Tr
01	V102	S.E. Industrial Prod. & Equip.		30	999.99%	400	974.14%	350	999.99%		0	2	3	0	0	0
01	V120	Warehouse Interiors, Inc.		14	999.99%		999.99%		94.60%	1000	0	2	0	0	1	0
01	V100	General Industrial MFG		21	486.65%	500	263.00%	300	2.55%	1000	9	0	2	0	0	0
01	V101	Industrial Supply Distributors		21	999.99%	250	999.99%		999.99%		1	0	2	0	1	0
01	V105	Warehouse Equipment Unit...		30	114.62%	4000	999.99%		999.99%		1	0	3	0	1	0
01	V110	Georgia Shipping Equip. C...		7	138.68%	1000	98.88%	500	10.15%	1000	0	0	2	0	0	0
01	V113	Atlanta Crane & Hoists		14	999.99%		999.99%		999.99%		0	0	1	0	0	0
01	V115	World Materials Handling C...		21	999.99%	700	303.13%	500	62.19%	1000	1	0	8	0	1	1
01	V119	Industrial Chemicals Inc.		14	373.68%	500	999.99%		0.00%		0	0	4	0	0	0
01	V100	General Industrial MFG	0000000002	14												
01	V115	National Conveyors, Inc.		14												
01	V999	WHOS		0		0										

The initial screen of the Buyer's Control Center (BCC) is what we refer to as the summary screen. It allows the user to identify the buyer code and activity (Procurement, Transfers or Returns) they want to perform, then presents a prioritized summary of each ARP's activity.

The columns and options differ slightly based on the Activity selected, but the process is very similar. For this part of the guide, we will focus on the Procurement activity.

The other options at the top of the screen (Warehouse, the Calculation Options, and the Filters) will be discussed later. For now, we will assume the defaults are used, which should be fine for most users.

Each ARP assigned to the selected buyer will be displayed and color coded to indicate the priority of the replenishment activity needed for items in the ARP. The summary data includes three sections: general data, buying targets, and prioritization:

The general data section includes the 'To' warehouse, vendor # and name, the purchasing line and the established review cycle.

The buying targets section includes:

Ach Amt – “Achieved Amount” is the total cost of the current recommended order, and can be presented as either the amount itself or the % of the buying target

Target Amt – this is the buying target for cost as identified in Review Cycle Setup

Ach Weight – “Achieved Weight” is the total weight of the current recommended order, and can be presented as either the amount itself or the % of the buying target. For this value to be accurate, you must have entered and maintained weights for each item and UM in Item F/M, UM F/M.

Target Wgt – this is the buying target for weight as identified in Review Cycle Setup

Ach Cubes – “Achieved Cubes” is the total cubes of the current recommended order, and can be presented as either the amount itself or the % of the buying target. For this value to be accurate, you must have entered and maintained cubes for each item and UM in Item F/M, UM F/M.

Target Cubes – this is the buying target for cubes as identified in Review Cycle Setup

The prioritization section includes information on how the ARPs were prioritized and includes the number of items/lines that fall into the following categories:

(Note: PNA is “Purchasing Net Available” and equals On Hand - Committed - Backordered + On Order)

Spec Ord – Items with existing special orders

Backorder – Items that have open backorders

Critical – Items where PNA is less than safety stock quantity.

Neg PNA – Items where PNA is negative. (i.e. if all open purchase orders arrived now, there would still not be enough to fill current needs)

Replenish – Items where PNA is at or below order point

Sugg Tr – Items that are on a suggested surplus transfer

Note: Any item that does not fall within one of the above categories will be given a fixed sort value of “10”, and color coded white. For example, an item that is above order point but below line point would show up with a sort value of “10” and colored white.

Determining When, What and How Much involves some significant data analysis and math. FACTS will look at every item in every ARP assigned to the buyer, and use the replenishment controls which were calculated the night before to answer those three questions.

That analysis also looks at current open orders for any backorder or special order needs, so it can take some time, especially on systems with a high number of SKUs, so it is not done automatically. At least daily, buyers should run the “Recalculate All” option, which performs the analysis on all ARPs and redisplay the prioritized results.

The summary screen of the BCC primarily answers the question “When to buy?”, though it does also provide the achieved amounts for the recommended order, which combines the “What” and “How Much” questions.

When to place an order

Any ARP that is color-coded on the summary screen should be reviewed for whether an order should be placed. Generally speaking, the higher the ARP appears in the summary screen, the more urgent it is that an order be placed.

Typically, an order should be placed when any “worthy” item in the ARP is at or below order point. There are exceptions, and buyers will sometimes delay placing an order depending on their willingness to risk stock outs of the items in question.

When deciding “When” to place an order, we do not strictly consider where we are in the ARP’s review cycle. If we have worthy items that will stock out before the next planned order, we don’t want to just let the stock out happen because we didn’t expect to place another order this soon. FACTS analyzes all of the items in the ARP and presents needed replenishment activity regardless of where they are in their review cycle.

However, as you will see, review cycle is far more important to answering “What” and “How Much”. It’s just not used to determine “When”.

What to order

Once it’s determined that you should place an order with a vendor or distribution center (remember, that is based on having any worthy items at or below order point), the next question is “which items should I order?”

To answer this question, we need to revisit Line Point.

Line point = order point + (review cycle days times average daily usage), and is generally considered to be the stocking level we want to order up to, with some possible adjustments like economic order quantity (EOQ) and vendor or transfer rounding (more on that when we get to “How Much”).

Normally, when placing an order, we should be ordering all items that are below line point. This keeps the entire line of products for this ARP balanced with each other, making it easier to make buying targets regularly.

At this point, we need to take a closer look at the Buyer's Control Center Detail screen. You get to this screen by double-clicking one of the ARP's on the summary screen:

Target	Current	+/-	Percent
Dollars: 700	7700.52	7000.52	999.99%
Weight: 500	4515.626	4015.626	903.13%
Cubes: 1000	621.9173	-378.0827	62.19%

Sort	Buy	Override	Item	Item Description	Special Order	Recommended	Available	Purchase	UM	Cost	UM	Extension
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I113	Rolling Stock Picking Ladder		4	0	4	EA	330.850	EA	1322.80
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I117	Corrugated Bin Box		1000	0	1000	EA	.480	EA	480.00
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I134	Drum Wrench - steel		29	-5	29	EA	9.610	EA	277.27
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I135	Drum Dolly		18	-1	18	EA	30.060	EA	541.08
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I136	Reinforced Strapping Tape		1445	0	1445	EA	2.470	EA	3569.15
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I137	Nylon Sling - Triangle Choker		16	0	16	EA	16.850	EA	257.28
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I138	Ball Bearing Trolley (for		6	0	6	EA	45.090	EA	268.56
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I158	Floor Paint - heavy duty drum		21	-5	21	DM	30.060	DM	631.26
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	TANUS	TEMPORARY	001914, 001	1		1	EA	10.000	EA	10.00

This screen is essentially a working PO. Each time a recalculate is run for this ARP, the working PO is updated with the new information – quantities can change, new items can appear, and items can be dropped, all based on the current replenishment controls and quantities in the warehouse.

The items that appear in the list by default are the items that “should” be purchased, typically all replenished items in this ARP that are below line point.

The items are prioritized based on the same priority values explained from the summary screen, with the higher priority items appearing first.

You can re-sort the grid by clicking on the column headers.

To change the amount you want to purchase, simply change the value in the green “Purchase” column, but note that manual changes to the purchase quantity will not survive a recalculation unless the “Override” checkbox is selected.

To exclude an item from being purchased, you can either set the purchase quantity to 0, or you can unselect the “Buy” checkbox. This field also will not survive a recalculation unless Override is selected.

You can also manually add items to the working PO by going to the last line in the grid and typing in the item number.

Before we go further into explaining how to use this screen, let's look at each column in the grid and explain their purpose. Note that many of the cells are “clickable”, allowing you to drill down to further information about that cell – these cells have a magnifying glass image on them. The column information is defined as follows:

Buy – this checkbox indicates which items will be included on the purchase order when placed.

Override – this checkbox should be used if you make manual changes to the Purchase quantity or the Buy checkbox, and you want to be sure those manual changes remain even after a recalculation. Selecting override can be problematic because there could be important changes as a result of the recalculate, and they will be ignored.

Item and Item Description – you can directly add items by going to the open line at the bottom of the grid and typing the item number or clicking the “...” button to access item search. You are not allowed to change the item description on this screen, and you cannot change the item number on an existing line.

Notes and Resources buttons – the next two columns provide access to item notes and item resources (Supplemental Resource Manager). The buttons will be yellow if there are existing notes or resources on file.

Special Order – this checkbox indicates whether that line is a special order tie to a sales order, transfer, or customer return. When manually adding an item, you can select this checkbox to establish a special order tie. For existing special order lines, this cell will be a button with the document number and line number it is tied to. Clicking the button will take you to the appropriate document inquiry and load the document for viewing.

Recommended – this is the quantity FACTS replenishment calculated as the value that should be ordered. To see how FACTS arrived at this value, select the “Show Math” button while any cell for the line in question is highlighted. If a surplus stock transfer has been initiated to bring in excess stock from another warehouse, this cell will be yellow.

Available – this is the current available quantity in the warehouse. Clicking this cell displays the Open Docs View for this warehouse and item.

Purchase – this is the current value that would be ordered if you were to create the PO. This value defaults to the recommended value, but can be changed. If there are existing suggested surplus transfers for this item, the Purchase value will be displayed with a yellow background.

UM – this is a drop-box with all available buying UMs for the item. This will default to the default buying UM. This value cannot be changed on a special order line, as it must match the UM on the associated document.

Cost, Cost UM and Extension – the cost and cost UM are defaulted based on current costs and cost contracts. You can change the cost as needed. Updated costs will not survive a recalculate unless Override is selected. Extension is simply the total cost based on the quantity in the Purchase column.

Surplus – this is the amount of surplus stock available in alternate warehouses. This column and the Sugg. Outstanding column will only be displayed if the “Use Surplus” option is selected in PO Static Control. If a number is displayed, the cell will be yellow, and clicking it will display the warehouses and the amount of surplus stock in each. This screen allows the user to initiate a surplus transfer which will in turn reduce the recommended order quantity for this PO.

Sugg. Outstanding – this will be the total quantity already on suggested surplus transfers.

Lead Time – this is the current average lead time days for this item. Clicking on the cell will display the past receipts for this item and warehouse.

Weight and Ext. Weight – weight is displayed from the item and UM identified, and the extension is the total weight based on the quantity in the Purchase column. Clicking on the Weight cell will display the item’s units of measure.

On Order and Backorder – these are the current quantities on order and backordered for this item in this warehouse. Clicking the On Order cell displays all relevant order documents, and clicking on the Backordered cell displays all open documents for the item.

Order Pt, Line Pt, EOQ – these values are the current calculated replenishment values for this item. Additional details on these values are available on the “Show Math” screen.

AMU – AMU is the current calculated ADU times 30. FACTS calculates usage on a daily basis, but it is easier to understand when displayed as a “monthly” value. Clicking on this cell displays the usage summary view. Additional details about AMU are available on the “Show Math” screen.

Surplus – this surplus column displays the amount of surplus stock is on-hand in this warehouse.

Usage Mtd, Rank, Item Class, ARP – these fields are for reference only and display the item’s usage method, rank in the warehouse, item class, and normal ARP (useful if you are purchasing the item from an alternate source).

This Buyer’s Control Center Detail screen presents you with the list of items that “should” be ordered. “Should” of course is based on what you want to accomplish. For example, options at the top of the BCC detail screen allow you to exclude special order lines and non-replenished items.

There is also an option to “Show Items Above Line Point” – this option will allow you to see all of the items in this ARP, even if they are not ready to be ordered. Items that are not ready to be ordered will be displayed with a Purchase Quantity of 0, but it can be useful to see all of the items in the ARP, and it allows you to investigate why FACTS is not recommending you purchase an item.

FACTS distinguishes between replenishment POs and emergency buy POs using a flag on the PO header. A replenishment PO is consider the normal buying cycle PO and is used to determine where you are in the review cycle for the vendor.

A PO that is for an emergency buy for select items would not be considered a replenishment PO and would not reset/restart the review cycle.

On the detail screen, we display the last replenishment PO number, its date, and how many days are remaining in the review cycle. Clicking the button beside the field will display the PO in PO Document Inquiry.

Replenishment Actions

Replenish Action allows you to select between Line Buy, Emergency Line Buy and Below Order Point Buy. Of these three options, only Line Buy is considered a replenishment PO.

A Line Buy is the default type of buy. When it’s determined that it’s time to place a PO (because there are worthy items below Order Point), a line buy will select all items that are below line point and recommend an order to bring them all back to line point.

The idea here is that since you’re placing a PO anyway, you should go ahead and order anything you know you’ll need for the review cycle.

An Emergency Line Buy is used to bring in only those items and quantities you need before it's time to place the next regular PO with this vendor. If the ARP's review cycle is 14 days, and it's been 10 days since the last PO, an emergency line buy will calculate the PO for the remaining 4 days – i.e. what you need to buy to cover the next 4 days.

This option will not be available if you are already past the review cycle for this ARP. It works simply by setting the Adjusted Review Cycle (we will discuss the adjusted review cycle more in the section on making targets) to the number of days remaining in the review cycle, and doing a standard line buy with the new review cycle.

The idea here is to avoid interrupting the review cycle by placing a small PO to take care of any current crises. Buying for the remaining time in the review cycle hopefully prevents having to do another emergency buy in a couple of days.

A Below Order Point Buy is another type of emergency buy, but it limits the recommended order to only those items that are currently below order point. The downside of this is that an item that is just above order point and is expected to fall below order point tomorrow would be left off the PO, potentially causing you to have to do yet another emergency buy.

How Much to order

Once it's determined that we need to order an item, the next question is "how much should we order?" The answer to this question brings in many different values and settings.

The BCC will do the math for you and present the recommended order quantity (ROQ) in the green Purchase column. To help you understand how FACTS came up with the ROQ, we have added the "Show Math" option. Click on any cell in the row you want to see the math for, and click the Show Math button. The display will include all of the information FACTS used to determine the amount to order.

It is important to become very familiar with this screen, as it will help reinforce what all the numbers mean and how they impact the final results. Here is a sample of the data that could be displayed in the Show Math screen:

```

Usage
-----
Usage Method: T - Trend
Rank: A
Approved Replenishment Path (ARP): Vendor -> World Materials Handling Co. (V116)
Costing Method: LIFO
Record Establish Date: 07/06/2009
Usage Months: 3.0000
-
Raw Trend Percent = (Bucket 3 / Bucket 1) * 100
Raw Trend Percent = (595 / 165) * 100
Raw Trend Percent: 360.61%
-

```

Prior Year Hit Dates: 04/30/2011 - 04/29/2012

Prior Year Hits Required: 3

Current Year Hit Dates: 04/30/2012 - 04/29/2013

Current Year Hits Required: 3

-

Prior and Current Year Hits achieved

Minimum Trend Percent: 50%

Maximum Trend Percent: 250%

-

Trend Dates: (01/30/2012 - 04/29/2012) vs. (01/29/2013 - 04/29/2013)

Trend Usage: 165 EA vs. 595 EA

Trend %: 250.00%

Trend Usage Dates: 04/30/2012 - 07/29/2012

Trend Usage: 390 EA

AMU = (Trend Usage * Trend%) / Usage Months

AMU = (390 * 250.00%) / 3 = 325.0000 EA

-

AMU: 325.0000 EA

ADU = AMU / 30

ADU = 325.0000 / 30

ADU: 10.8334 EA

-

Threshold Minimum: 180.0000 EA

-

Effective AMU: 325.0000 EA

Effective ADU: 10.8334 EA

Order Point

Average Lead Time (LT): 82

Safety Stock Percent (SS%): 50

Safety Stock Days Supply (SSD) = LT * (SS% / 100)

SSD = 82 * (50/100) = 41 days

Average Daily Usage (ADU): 10.8333 EA

-

Safety Stock Quantity (SSQ) = ADU * SSD

SSQ Calculated = 10.8333 * 41 = 444.1667 EA

Safety Stock Minimum Days: 7

Safety Stock Maximum Days: 30

Safety Stock Quantity Minimum = $7 * 10.8333 = 75.8331$ EA

Safety Stock Quantity Maximum = $30 * 10.8333 = 324.9990$ EA

Safety Stock Quantity: 324.999 EA

-

Calc OP = $(LT * ADU) + SSQ$

Calc OP = $(82 * 10.8333) + 324.999$

Calc OP = 1214 EA (rounded to stocking)

-

T-Min Order Point: 600 EA

-

Average Shipment Quantity (ASQ): 76 EA

-

5-high ASQ (5HI): 90 EA

5HI Values: $(80 + 80 + 100 + 100) / 4$, 200 dropped

-

Selecting Order Point...

Calculated: 1214, ASQ: 76, 5HI: 90, T-Min: 600

CALC selected

OP: 1214 EA

Line Point

Line Point = $Order\ Point + (Review\ Cycle * ADU)$

Line Point = $1213.3323 + (21 * 10.8334)$

Line Point: 1441 EA (rounded to stocking)

Recommended Order Quantity (ROQ)

Temp Line Point in use: 1441 EA

Net Available: $(On\ Hand - Committed - Backorder + On\ Order)$

Net Available: $(0 - 0 - 0 + 0) = 0$ EA

Line Point: 1441 EA

Up to Line Point: $Line\ Point - Net\ Available$

Up to Line Point = $1441 - 0 = 1441$ EA

-

Economic Order Quantity (EOQ)

Average Daily Usage (ADU): 10.8333 EA
 Average Monthly Usage (AMU): 324.9990 EA
 Product Cost: 2.470/EA
 R Cost: 5.000
 K Cost%: 30
 Calculated EOQ: $\text{sqr}((24 * \text{AMU} * \text{R_Cost}) / ((\text{K_Cost} / 100) * \text{Cost}))$
 Calculated EOQ: $\text{sqr}((24 * 324.9990 * 5.000) / ((30 / 100) * 2.470))$
 Calculated EOQ: 229 EA
 Minimum Days Supply (MinDS): 7
 Minimum Supply EOQ = (MinDS * ADU)
 Minimum Supply EOQ = (7 * 10.8333) = 75.8331 EA
 Maximum Days Supply (MaxDS): 180
 Maximum Supply EOQ = (MaxDS * ADU)
 Maximum Supply EOQ = (180 * 10.8333) = 1949.994 EA
 Effective EOQ: 229 EA
 -
 Comparing Up To Line Point to EOQ: Up To Line Point selected
 Calculated ROQ: 1441 EA
 Rounding to 5 EA
 Effective ROQ: 1445 EA

Arriving at ROQ

The steps to arriving at the ROQ are:

- 1 calculate the correct usage
- 2 calculate the order point (which could be adjusted with an OP Adjuster)
- 3 calculate a good line point (which is dependent on the review cycle)
- 4 order enough to get to line point
- 5 increase to EOQ (explained below) if applicable
- 6 apply rounding

Economic Order Quantity (EOQ)

Economic order quantity is used to optimize the order quantity based on the cost to place an order (R-Cost) vs. the cost to carry the item (K-Cost). Since storage costs can vary greatly for inventory, K-Cost isn't uniform for all items. For example: a warehouse could hold a thousand times more 'USB flash drives' that it could 'Volkswagen Bug®' automobiles. The Bugs have a higher K-Cost

than the flash drives. EOQ answers the questions: what is mathematically the most cost-effective quantity to buy and should you buy larger quantities less frequently?

EOQ will never reduce the order quantity, but it may increase the order quantity if it determined that it's better to put more on the shelf and order it less frequently.

The EOQ calculation has been established and proven over decades of use, but it requires accurate R-Cost and K-Cost values, which are set in Replenishment Parameter F/M.

Economic Order Quantity (EOQ) Calculation

Average Usage is by Month

$$\sqrt{\frac{24 * R - Cost * AvgUsage}{K - Cost\% * UnitCost}}$$

Rounding

Rounding is the last step when determining the recommended order quantity. It is used to further optimize the order quantity. Rounding applies to both transfer and purchase orders and increases to the 'next' quantity/UM as needed.

Making Buying Targets

Buying targets are typically established by a vendor or a purchasing manager, and are used to help secure the lowest costs for shipping, the best pricing discounts, or best use of container space when placing orders. Buying targets are setup in Review Cycle Setup, and can be established for Cost, Weight and/or Cubes.

For buying targets to be used, the proper information must be maintained – i.e. accurate costs, weights and cubes must be entered for each item.

Buying targets are displayed in the BCC detail screen. As you make changes to the purchase quantities, etc., the buying targets are updated and displayed.

Making buying targets regularly depends on using proper review cycles and following good procedures. Buyers will often manually increase the purchase quantities of popular items when trying to make a buying target (i.e. “top off the truck”), but this causes a number of problems:

- These popular items are the ones you rely on to make your targets, and when you become overstocked on them, it's more difficult to make target the next time.
- You are ignoring items that are likely to drop below order point sooner than the popular items, making it more likely that you will have to do an emergency buy before the review cycle is through.

Instead of simply guessing what to order more of, we have added a field “Adjusted Review Cycle” to the BCC detail screen. Increasing the review cycle will recalculate all of the items in the ARP based on the new review cycle (i.e. it will suggest a line buy for more days). This will proportionately increase the quantities of all items in the ARP and potentially bring in items that were not even on the radar at the original review cycle.

Increase the adjusted review cycle until the buying target is reached.

By making targets this way, the next time you need to place an order for this ARP, the line will be balanced, and you will be less likely to need to go back to this vendor for an emergency buy.

Creating the PO

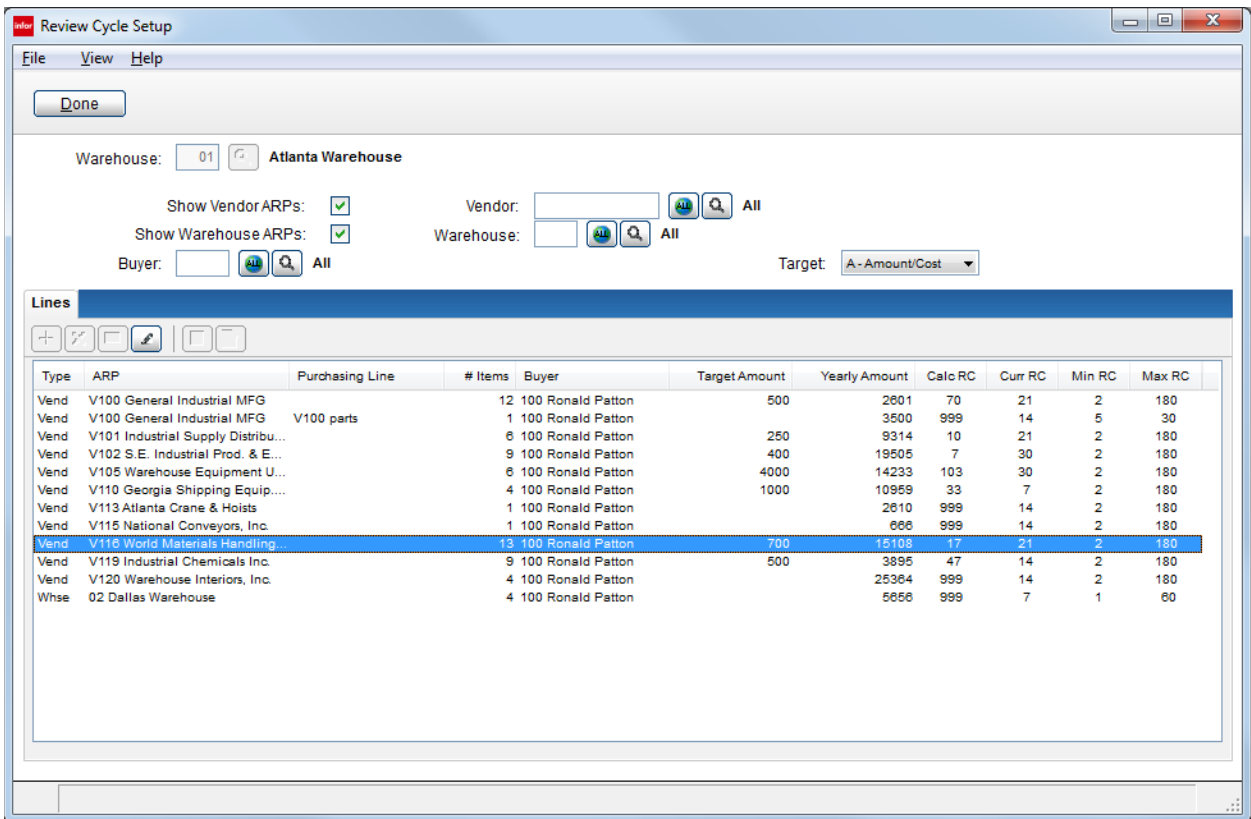
The last two values that you can review or set prior to creating the PO are the RM Contact (if you have Relationship Management) and the Freight amount.

Once you are satisfied with the items and quantities, simply select the Create PO button on the BCC detail screen. The PO will be created, and you will be given the opportunity to view/edit the PO. This allows you to make any additional changes prior to printing.

Chapter 4 Review Cycle Setup



Review Cycle Setup is used to establish review cycles and buying targets for all ARPs, both vendor and transfer.



This program will analyze all of the replenished items in the selected warehouse, and display all of the ARPs (both vendor and warehouse) represented. The ARP for each item is established in Warehouse/Item F/M.

For each ARP, we display the # of items in the warehouse that are replenished by that ARP, and the review cycle and buying targets established. If no review cycle is setup, an asterisk will appear on that line, indicating that the review cycle should be setup.

To view the items in the replenishment path you can select the Show Items button on the Setup Review Cycle screen or select View>Items in the ARP from the menu.

When you have finished modifying review cycle information, you can select File>Create Missing Review Cycle Records to generate additional review cycles, or you can select File>Update Min/Max Review Cycle to update the review cycle minimum and maximum values based on your changes.

Surplus Stock

When surplus stock is available in a warehouse for an item that is being replenished on a PO or a TR for another warehouse, the BCC will make the buyer aware of the presence of the surplus stock by changing the color of the Surplus cell to yellow.

If you are not seeing the surplus, look at the “Use Surplus” setting in PO Static Control F/M – it must be selected to activate this functionality.

Clicking on the yellow Surplus cell presents you with a list of the alternate warehouses that have surplus and the quantities:

The screenshot shows a window titled "Surplus selection for Warehouse 01, Item I136". It contains a "Done" button, a "To Whse:" field with "01 Atlanta Warehouse", and an "Item:" field with "I136 Reinforced Strapping Tape". Below this is a "Lines" section with a table of surplus options. The table has columns for Whse, Description, Surplus Qty, UM, AMU, Lead Time, Existing Sugg. Transfer, and Existing Transfer. One row is highlighted for "Dallas Warehouse" with a surplus quantity of 5010. A "Quantity to use from surplus:" field is set to 1000, and a "Total Selected:" field at the bottom is also set to 1000.

Whse	Description	Surplus Qty	UM	AMU	Lead Time	Existing Sugg. Transfer	Existing Transfer
02	Dallas Warehouse	5010	EA	45.666	5	1000	0

From this screen, you can select a warehouse and enter the quantity you want to be transferred from that warehouse.

When you exit the screen, the BCC detail screen will be updated:

The screenshot shows the Buyers Control Center (BCC) interface. At the top, there are buttons for 'Exit' and 'Create PO', and a 'Show Math' button. Below these are fields for Buyer (100 Ronald Patton), Warehouse (01 Atlanta Warehouse), Vendor (V116 World Materials Handling), and Rank (-All). A summary table shows Target, Current, +/-, and Percent for Dollars, Weight, and Cubes. Below this are options for including non-replenish items, importing suggested special orders, and showing items above line point. A table at the bottom lists items with columns for Sort, Buy, Override, Item, Special Order, Recommended, Available, Purchase, UM, Cost, UM, Extension, Surplus, and Sugg. Outstanding. Item I136 is highlighted in blue, and its Purchase column is yellow, indicating a surplus transfer.

Sort	Buy	Override	Item	Special Order	Recommended	Available	Purchase	UM	Cost	UM	Extension	Surplus	Sugg. Outstanding
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I113	<input type="checkbox"/>	4	0	4	EA	330.850	EA	1322.000	14	
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I117	<input type="checkbox"/>	1000	0	1000	EA	.480	EA	480.000	0	
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I134	<input type="checkbox"/>	29	-5	29	EA	9.610	EA	277.277	80	
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I135	<input type="checkbox"/>	18	-1	18	EA	30.060	EA	541.080	9	
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I136	<input type="checkbox"/>	1445	0	445	EA	2.470	EA	1099.150	5010	1000
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I137	<input type="checkbox"/>	16	0	16	EA	16.850	EA	257.288	100	
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I138	<input type="checkbox"/>	6	0	6	EA	45.090	EA	268.556	25	
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	I158	<input type="checkbox"/>	21	-5	21	DM	30.060	DM	631.260	10	
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	TANUS	<input checked="" type="checkbox"/>	001914.001	1		EA	10.000	EA	10.000		

Notice in the screen above that the Purchase column for I136 was changed to yellow, indicating that a surplus transfer is being used to partially fill the recommended quantity, and it has been reduced by the surplus transfer amount.

The Sugg. Outstanding column now shows the total outstanding surplus transfers for that item.

Creating the transfer tickets for these quantities is done by the buyer responsible for the transfers. They will see the suggested transfers when they select the Transfer activity from the BCC main screen.

Suggested Purchase Orders (POs) and Transfers (TRs)

Generally speaking, suggested POs should no longer be used for stocked/replenished items. The BCC will automatically pick up backordered lines and special orders for both purchase orders and transfers, and the existence of suggested POs can actually make the replenishment process more cumbersome.

For non-stocked items, suggested POs can be helpful for some reporting, but are not required for the BCC.

For temporary items, suggested POs should continue to be used.

It is recommended that you turn off suggested PO and TR handling in SO Entry Options F/M (SOF915) for Stocked, Nonstocked and Uninventoried items.

Replenishment type suggested POs and TRs are no longer used in FACTS.

There are several new uses of suggested TRs which are automatic:

- When requesting a surplus transfer to supplement or replace a recommended PO or TR, a special order suggested TR will be created.
- When a customer return must be sent to a consolidation warehouse for return to the vendor, a special order suggested TR will be created.

Transfers

Warehouse transfers are handled by the BCC in the same way as purchases, with a few differences in the detail screen.

Target	Current	+/-	Percent
Dollars:	3957.98	3957.98	0.00%
Weight:	1236.528	1236.528	0.00%
Cubes:	18.8566	18.8566	0.00%

Sort	Transfer	Override	Item	Item Description	Special Order	Recommended	Available	From Avail	Requested	From On Ord
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1114	Digital UPS/Parcel Post Scale		8	0	8	8	EA
070	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1136	Reinforced Strapping Tape	Surplus	1000	0	5162	1000	EA
050	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1120	Hand Held Stretch Wrap		149	61	750	149	1EA

Included on the detail for transfers are some additional columns that can be helpful:

- From Avail – this is the current quantity available in the ‘From’ warehouse.
- From On Ord – this is the current quantity on order in the ‘From’ warehouse – i.e. the amount that should be coming in to the ‘From’ warehouse.
- From BackOrd – this is the current quantity backordered in the ‘From’ warehouse.

These values help you understand what you may actually be able to get from the DC. However, it's important to request the amount you actually need, as the presence of backordered amounts in the DC will trigger the purchasers in the DC to order more.

If you reduce your transfer request to match what is available in the DC and lose sales as a result of having inadequate stock, it's critical that you record the lost sales – otherwise the DC never gets visibility that they failed to stock enough quantity, and the problem will not be corrected.

Warehouse/Item F/M

Most of the warehouse/item-specific settings are available on the Restocking tab of Warehouse/Item F/M.

The screenshot shows the 'Warehouse Item F/M' window with the 'Restock' tab selected. The 'Warehouse' is '01 Atlanta Warehouse' and the 'Item' is 'H36 Reinforced Strapping Tape 180ft, 1\"w'. The 'Stocking UM: EA' is displayed. The interface includes various input fields and checkboxes for replenishment parameters:

- Replenish:** ARP: → Direct from Vendor
- Rank:** Freeze: Frozen Rank:
- Usage Method:** Expiration Date: Memo:
- Calculated AMU:** EA Months: Date Range for AMU: Trend Percent:
- Effective AMU:** EA
- Apply T-Min Usage:** T-Min Usage: EA
- Average Lead Time:** Expiration Date: Memo:
- Safety Stock:** % Freeze: Frozen Lead Time:
- Assign T-Min OP:** T-Min Order Point: EA
- Order Point:** EA Expiration Date: Memo:
- Line Point:** EA Freeze: Frozen OP: EA
- Order Quantity:** EA Freeze: Frozen LP: EA
- EOQ:** EA Use EOQ: Frozen OQ: EA

Buttons for 'Replenishment Parameter Maintenance' and 'Show Replenishment Math' are visible in the top right.

The options to freeze controls and the T-Min values, while available here are actually stored in the Replenishment Parameters file and can be maintained from Replenishment Parameter F/M as well.

In general, freezing values should be avoided where possible, as frozen values are inflexible. There are some situations which require frozen values, but when possible, address the need by using T-Mins. When you do freeze a value, always enter a reasonable expiration date (meaning not too far in the future) and a memo explaining the purpose of the freeze.

In the past, it was common to freeze the rank of a new item, but we now have a T-Min Rank for new items which can be set in Replenishment Parameter F/M that will automatically be applied based on the Record Established Date on the Main tab of Warehouse/Item F/M. It is generally preferable to allow that T-Min Rank be applied as opposed to freezing the rank, but it is important that the record established date be accurate.

The usage method can be frozen. This prevents the seasonality analysis alert from analyzing the warehouse/item record. In cases where you are certain that the usage method is correct, it is actually helpful to freeze the usage method.

Safety stock can be set at multiple levels in Replenishment Parameter F/M – for example, it can be set at the vendor, purchase line, or item level – so it should be rare that you need to set it at the warehouse/item level. Before freezing safety stock at the warehouse/item level, seriously consider

setting it at a higher level, as it will reduce maintenance tasks and result in more consistent safety stock across all of your items.

Note that you have access to Replenishment Parameter F/M and the Show Math options from the Restocking tab.

The Usage tab shows a monthly summary of the item's usage and provides direct access to Usage Review:

The screenshot shows the 'Warehouse Item F/M' window with the 'Usage' tab selected. The window title is 'Warehouse Item F/M'. The menu bar includes 'Audit' and 'Help'. The toolbar contains buttons for 'Exit', 'New', 'Delete', 'Save', and navigation arrows. The 'Warehouse' is set to '01 Atlanta Warehouse' and the 'Item' is 'H36 Reinforced Strapping Tape 180ft, 1"w'. The 'Usage' tab is active, showing a table of usage data for the period 04/2012 to 04/2013. A 'Usage Review' button is visible in the top right of the data area.

Period	Desc	Qualified	Actual	Stock Out	Cust Hits	Doc Hits	Safety Dip %	EOP On Hand	Turns (Usage / OH)
04/2013	APR	175	175	31					999.9
03/2013	MAR	230	230	31			99%	0	999.9
02/2013	FEB	190	190	0	1	1	0%	977	.2
01/2013	JAN	0	0	0			2%	1077	.0
12/2012	DEC	0	0	0			0%	1294	.0
11/2012	NOV	0	0	0			0%	1488	.0
10/2012	OCT	0	0	0			0%	1230	.0
09/2012	SEP	0	0	0			0%	1385	.0
08/2012	AUG	0	0	0			0%	1701	.0
07/2012	JUL	120	120	0	3	3	0%	1722	.1
06/2012	JUN	120	120	0	2	2	0%	1840	.1
05/2012	MAY	150	150	0	2	3	0%	1597	.1
04/2012	APR	70	70	0	2	2	0%	1015	.0
13 PD Usage			1055				13 PD Avg OH	1224.9	Turns .9

The Receipts tab shows all receipts of all types and provides direct access to Lead Time Review:

Warehouse: 01 Atlanta Warehouse
Item: H36 Reinforced Strapping Tape 180ft, 1" w

Main | Restock | Usage | Sales | Cost | Activity | Receipts

Filters

Entered From Date: 01/30/2013
Entered To Date: Today

Refresh

Lead Time Review

Document	Receipt/Shp #	Type	Date	Units	UM	Cost	UM	Lead	Ignore	Abnormal
NP0100	00001	PO	04/26/2013	8	EA	2.470	EA	240	N	N
001028	00001	PO	03/30/2013	160	EA	2.470	EA	2	N	N
001018	00001	PO	03/23/2013	160	EA	2.490	EA	2	N	N
001004	00001	PO	03/17/2013	160	EA	2.470	EA	3	N	N
000994	00001	PO	03/09/2013	170	EA	2.490	EA	2	N	N
000979	00001	PO	03/02/2013	105	EA	2.470	EA	2	N	N

Enter the lower date range restriction, F1-First

The options for rounding order quantities are only available from Replenishment Parameter F/M.

There are now many ways to update the warehouse/item settings, including Replenishment Parameter F/M, Process Warehouse Item Records (which utilizes Microsoft Excel) and Transfer/Change Item Codes.

Min/Max Technique

The option of using Min/Max instead of OP/LP no longer exists in FACTS.

Min/Max is a static, inflexible approach to replenishment. In cases where you absolutely must lock down stocking quantities, you can simulate Min/Max by setting a T-Min Order Point to the Min and freezing line point to the Max.

We have provided data conversion options when converting from pre-FACTS 7.8, and these options are presented to the user during the data conversion:

- Convert frozen minimums to T-Min Order Point (recommended)
- Convert frozen maximums to frozen Line Point (not recommended)

Lead Time Review

As discussed earlier, it is critical that the average lead time (LT) be an accurate representation of the vendor or distribution center's actual performance. The average lead time is calculated by looking at actual receipts, based on the settings in Replenishment Parameter F/M, Receipts Used to Calculate Lead Time, and subject to the minimum and maximums for vendor or transfer ARPs.

Lead Time Review provides access to the receipts for a warehouse/item and allows you to directly impact them in several ways.

“Abnormal” refers to a lead time that was outside established parameters – i.e. it was unusually long or short. FACTS automatically sets the abnormal flag as receipts are processed, and this flag is useful during lead time review to quickly see questionable receipts.

A receipt may be abnormal and also correct. The fact that it's flagged as abnormal is not an automatic indication that it should be changed.

“Ignore” refers to a lead time that is excluded from the average lead time calculation. This flag is never automatically set by FACTS. It can be set by the user when entering or receiving the PO, and it can be set from within lead time review.

When a receipt was intentionally shipped differently than normal (e.g. it was expedited or requested to be delayed), setting it to Ignore is one option to ensure that it doesn't adversely impact the average lead time calculation.

Another option for handling lead times that are not wanted in the LT calculation is to qualify the lead time. When you enter a qualified lead time, you are indicating that FACTS should use the receipt in the LT calculation, but it should use the number of days you specify as the lead time. This can be useful when you have relatively few receipts for this ARP.

Based on the settings in Replenishment Parameter F/M, the average lead time will not use receipts older than a specified number of months, so entering a qualified lead time instead of ignoring it, can help ensure the average LT is being updated.

There are many reasons why actual lead times may be inaccurate, including:

- When a product was shipped using a faster shipping method to expedite delivery on a specific order
- When stock is purchased as a “pre-buy” to take advantage of early purchase discounts, but shipment is delayed
- When stock is received in the system long after it actually showed up in the warehouse (delay in data entry)

The Lead Time Review Screen:

Warehouse: 01 Atlanta Warehouse
 Item: H00 Pallet Loading Hand Truc
 Type: P - Purchase Order
 PO/Transfer #:
 Receipt/Ship #: All

ARP: 100
 Default Buyer: Ronald Patton
 Purchasing Line:
 Item Type: S Stocked
 Item Class: DCK Dock Equipment
 Item Active: Yes

Avg Lead Time: 11
 Show Lead Time: B - Abnormal

Lines

Vendor Active: Yes
 Contact 1: Roger Smith 404-393-9444
 Our Customer #: S890-0
 Contact 2: Gloria Faye (404)393-9457
 Web Site:
 Purchasing Invoices MTD: 9271.72
 YTD: 85347.34
 PYR: 104206.00

Abnormal: Ignore:
 Actual Lead Time: 275
 Qualified Lead Time:

Type	PO/Transfer #	Receipt/Ship #	Ignore	Abnormal	Actual LT	Qualified LT	Ordered	Received	Quantity	UM	Vendor	Ship From	Buyer	From ...	S
PO	001246	00001	N	Y	275		07/28/2012	04/30/2013	1	EA	V100	SAME	100		
PO	001253	00001	N	Y	267		08/06/2012	04/30/2013	14	EA	V105	SAME	300		
PO	001269	00001	N	Y	266		08/07/2012	04/30/2013	1	EA	V110	SAME	100		

The “Show Lead Time” drop box on the right limits which receipts are displayed. The default is to show only receipts with abnormal lead times, but you can also select “Ignore” (only show receipts that have been excluded from the LT calculation) or “All”.

Editing a line allows you to change the abnormal, ignore and qualified fields.

Usage Review

The initial screen presented by Usage Review is a summary view for the selected warehouse and item. It presents a daily view of usages beginning with the date specified and going back the number of days selected.

Warehouse: 01 Atlanta Warehouse
 Item: I136 Reinforced Strapping Tap
 Beginning Date: Today
 Days To Display: 9 - 90 Days
 Item Type: S Stocked
 Item Class: WHS Warehouse Equipment
 Item Active: Yes Date Established: 07/06/2009
 Rank: A
 Usage Months: 3
 High Usage Multiplier: 1.5
 Low Usage Multiplier: .5
 Recalculate Usage
 Abnormal Only

Math for Usage Range: Usage Timeframe (3 Periods Immediately Prior to last 30 days): 12/31/2012 to 03/31/2013
 Total Usage Over That 3 Periods: 420 EA
 Average Usage Over That 3 Periods: 140 EA
 Low Usage Limit (low multiplier (.5) times average usage): 70 EA
 High Usage Limit (high multiplier (1.5) times average usage): 210 EA

Date	Actual Usage	Qualified Usage	Total 30 Day Us...	Comparison Usage Range	Abnor...
04/30/2013	0	0	175	70 - 210	
04/29/2013	0	0	175	70 - 210	
04/28/2013	0	0	275	53 - 160	High
04/27/2013	0	0	275	53 - 160	High
04/26/2013	20	20	275	53 - 160	High
04/25/2013	0	0	255	53 - 160	High
04/24/2013	0	0	255	53 - 160	High
04/23/2013	0	0	255	53 - 160	High
04/22/2013	65	65	255	53 - 160	High
04/21/2013	0	0	190	53 - 160	High
04/20/2013	0	0	190	53 - 160	High
04/19/2013	0	0	190	53 - 160	High
04/18/2013	50	50	190	53 - 160	High
04/17/2013	0	0	140	53 - 160	
04/16/2013	0	0	190	45 - 135	High

This view provides a high-level perspective of the usage, including rolling 30-day usage values and the “normal” range based on the setting in Replenishment Parameter F/M. It allows you to see where spikes or troughs in usage occur.

You cannot edit usage from this summary screen. FACTS maintains usage values at the individual document level, not in monthly or even daily buckets.

To make changes to specific documents, you must proceed to the detail screen by drilling down on one of the lines on the summary screen:

The screenshot shows the 'Usage Review Detail' window. At the top, there are buttons for 'Done', 'Replen F/M', 'Cust Inq', and 'View Doc'. Below these are various filter fields: Warehouse (01 - Atlanta Warehouse), Item (1136 - Reinforced Strapping Tag), Item Type (S - Stocked), Item Class (WHS - Warehouse Equipment), Item Active (Yes), and Date Established (07/06/2009). There are also fields for Beginning Date (04/26/2013), Days To Display (3 - 30 Days), Rank (A), Usage Months (3), High Usage Multiplier (1.5), Low Usage Multiplier (.5), Filter, For Usage Warehouse (01 - Atlanta Warehouse), Show Usage (- All), and Type (- All). An 'Apply Filter' button is present.

The 'Lines' section shows customer information: Customer: C119 - Bradley Manufacturing Co., Active: Yes, Ship To City/State, Salesperson: 30 - Sally Furness, Sales Invoices MTD: 8732.42, YTD: 60772.80, and PYR: 58989.71. There are checkboxes for 'Update Usage' and 'Same As Actual', and a field for 'Usage Date' (04/26/2013) and 'Actual Usage' (20 EA). A table below shows usage data:

Usage Date	Type	Document	Receipt	Invoice	Line	Whse	Usage	Actual Usage	Qualified Usage	UM
04/26/2013	SO	001460		001667	002	01	Y	20	20	EA
04/22/2013	SO	001487		001664	001	01	Y	65	65	EA
04/18/2013	SO	001487		001689	002	01	Y	50	50	EA
04/15/2013	SO	001503		001705	002	01	Y	20	20	EA
04/05/2013	SO	001525		001728	001	01	Y	20	20	EA
03/30/2013	SO	001529		001732	001	01	Y	100	100	EA

Documents shown in the Usage Review Detail screen can be flagged to not update usage, and you can change the usage date or enter a qualified usage value different from the actual usage.

There are many filter options available to limit which documents are displayed:

Beginning Date defaults to the date you drilled down on from the summary screen. Documents with usage on that date and earlier (for the number of days selected) will be displayed.

The “Show Usage” drop box will limit the display to document with the Update Usage flag set to the same value as the drop box. That can be helpful if you need to find a document that was improperly flagged not to update usage.

Note: there is a flag in order entry and lost sale entry for “Exceptional Sale” – if Exceptional Sale is set to Yes, the Update Usage flag is set to No. If Exceptional Sale is No, Update Usage will be Yes.

The “Type” drop box limits the documents displayed to the selected document type.

To explain the “For Usage Warehouse” drop box, we first need to discuss the concept of “Rolled-Up Usage”.

Rolled-Up Usage

When a warehouse is a distribution center (DC) and replenishes another warehouse, the DC warehouse must stock for and purchase for itself (if it directly services customers) and for each warehouse it replenishes (and any warehouses those warehouses replenish, and so on). These complex ARPs require FACTS to analyze the usage all the way “down the line”.

The summary screen of Usage Review displays the total “rolled-up” usage for the selected warehouse and all warehouses “down the line” from it.

However, when going to the detail screen, the individual documents are displayed one warehouse at a time. The “For Usage Warehouse” drop box will include all of the warehouses “down the line” and will default to the originally-selected warehouse.

When the DC warehouse is selected in the drop-box, only documents shipped directly from the DC will be displayed. Selecting one of the other warehouses will display the documents that shipped from that warehouse.

Note also that warehouse transfers are never counted as usage and are never displayed in Usage Review.

Average Daily Usage (ADU) and Average Monthly Usage (AMU) are calculated daily by a process that typically runs at night, so changes to the usage values on documents will not be reflected in these numbers until that process is completed. However, you can force these values to be recalculated for the selected warehouse/item by selecting the “Recalculate Usage” button from the summary screen.

Purchasing Lines

A purchasing line is a group of items that are purchased together from a vendor.

An example of when a purchasing line (PL) may be required would be a vendor that sells heavy equipment and spare parts for the equipment. The vendor may not allow you to put equipment and parts on the same PO, so they can be separated into different purchasing lines.

Another example could be any vendor with multiple departments which require separate POs.

Purchase Line Entry allows you to setup the purchasing line, assign it to a vendor and add items to it. All of the items on a PL must have the primary vendor assigned to the purchasing line.

You can also put an item on a PL from Item F/M.

Once you have established a purchasing line, it will be available in all of the replenishment activities, including the buyer's control center, review cycle setup, replenishment parameter F/M, exception control center, and many reports.

Most replenishment parameters can be set at the purchasing line level, allowing you to control the replenishment behavior of items in one purchasing line differently from those in another.

Purchasing lines are not required, and you can have some items from a vendor be in a purchasing line while others from the same vendor are not in any purchasing line.

A recalculate in the BCC will separate purchasing lines, and the results cannot at this time be combined into a single PO, but you are allowed to manually add an item from one PL onto the BCC detail screen for a different PL or even a different vendor. Note that unless the Override checkbox is selected, a subsequent recalculate operation will remove the manually-added item from the BCC detail screen.

Exception Control Center

The Exception Control Center (ECC) is a critical part of the FACTS inventory management system and must be consistently reviewed by all buyers.

There are a series of alerts that FACTS looks for and notifies buyers about via the ECC, and missing these alerts not only eliminates many of the benefits of the proactive features of FACTS, but it can cause problems in some cases.

In Replenishment Parameter F/M, many of the settings have expiration dates. When those dates pass, the setting is removed. The only way the buyer knows that the expiration date is approaching is via the ECC.

Date	Alert Code	Description	Notice	Whse	Item	Replen	Rank	Vendor	Fro...	P-Line
06/04/2013	IC-POEARLY	PO to Arrive Too Early	Expected Sup...	01	I102	Yes	A	V100		
06/04/2013	IC-TREARLY	Transfer to Arrive Too Early	Expected Sup...	01	I104	Yes	A	V100	01	
06/04/2013	IC-TREARLY	Transfer to Arrive Too Early	Expected Sup...	01	I100	Yes	A	V110	01	
06/04/2013	IC-TREARLY	Transfer to Arrive Too Early	Expected Sup...	01	I100	Yes	A	V110	01	
06/04/2013	IC-TREARLY	Transfer to Arrive Too Early	Expected Sup...	01	I149	Yes	B	V119	01	
06/04/2013	IC-TREARLY	Transfer to Arrive Too Early	Expected Sup...	01	I102	Yes	A	V102	01	
06/04/2013	IC-TRLATE	Transfer to Arrive Too Late for Demand	Expected Sto...	01	I152	Yes	A	V119	01	
06/04/2013	IC-TREARLY	Transfer to Arrive Too Early	Expected Sup...	01	I157	Yes	A	V118	01	
06/04/2013	IC-POEARLY	PO to Arrive Too Early	Expected Sup...	01	I147	Yes	B	V120		
06/04/2013	IC-TREARLY	Transfer to Arrive Too Early	Expected Sup...	01	I147	Yes	B	V116	01	
06/04/2013	IC-TRLATE	Transfer to Arrive Too Late for Demand	Expected Sto...	01	I116	Yes	A	V100	01	
06/04/2013	IC-POEARLY	PO to Arrive Too Early	Expected Sup...	01	I100	Yes	A	V100		
06/04/2013	IC-TREARLY	Transfer to Arrive Too Early	Expected Sup...	01	I148	Yes	A	V119	01	
06/04/2013	IC-TRNDLIM	Seasonal Trending Limits Applied	Calculated Tr...	01	I136	Yes	A	V116		
06/04/2013	IC-PASTPD	PO Past Promise Date	26 days past ...	01				V100		
06/04/2013	IC-POCONF	Unconfirmed Purchase Order	# Days: 34	01				V120		
06/04/2013	IC-PASTPD	PO Past Promise Date	8 days past ...	01				V100		
06/04/2013	IC-POCONF	Unconfirmed Purchase Order	# Days: 8	01				V104		
06/04/2013	IC-POCONF	Unconfirmed Purchase Order	# Days: 8	01				V100		

The ECC automatically delivers alerts to buyers based on which ARP they are responsible for.

Many of the alerts are dependent on settings in Replenishment Parameter F/M or other places (noted in the detailed listing of the available alerts).

Each time the user opens the ECC, all open alerts are validated to be sure they still apply. If the alert is obsolete, it is automatically removed.

Furthermore, most alerts have a pre-established “re-raise” interval. Even if an alert was deleted by the user, if the condition that triggered the alert remains unresolved after the re-raise interval number of days, it will be redisplayed and moved to the top of the list.

Using the ECC is simply a matter of reviewing the alerts and responding to them or deleting them. You should always delete alerts that you have addressed or have acknowledged but do not need to do anything about. Keeping this ECC list clean and small helps ensure that you notice important issues as they arise. If the list gets lengthy, it’s more likely that you will miss something or stop reviewing the list altogether.

The ECC includes a “Close All” button that will close (delete) all of the alerts currently displayed at the time Close All is selected.

The filters at the top of the ECC allow you to limit the results in many ways. Additionally, you can re-sort the list by any of the columns – the “Notice” column is designed to allow sorting in order of severity. By default, the items are sorted by descending date, with the most recent issues appearing at the top of the list.

Buyers should typically spend time in the ECC every day looking for and addressing issues as they arise.

As an alternative to the ECC, buyers can choose to have exceptions delivered via email if they have the Email Toolkit licensed. Buyer Code F/M has the option to deliver alerts to the ECC, Email or Both.

If a buyer chooses to have exceptions delivered to email, they will lose benefits like automatic removal of obsolete items, filtering, etc., and they will have to organize the exceptions in their email folders. To facilitate organization, all emails generated for alerts have consistent subject lines.

Review the details of the available alerts later in this document.

Process Warehouse Item Records

Process Warehouse Item Records is a new way to handle mass updates to settings in warehouse/item F/M. It utilizes an Excel spreadsheet and requires Excel 2010 or higher.

To use process warehouse item records, the user must have a home directory setup in User Code F/M and have Excel 2010 installed on their workstation.

Process Warehouse Item Records Screen:

Process Warehouse Item Records

Template Help

Action: E - Export

Records: E - Only Existing

Order: I - Item

Beginning: [] First

Ending: [] Last

Filters

Warehouse: 01 Atlanta Warehouse

Warehouse to check: [] Not Applicable

Item Class: [] All

Buyer: [] All

Vendor: [] All

Purchasing Line: [] All

Item Type: B - Both

Replenish Status: B - Items Replenished or Not

Review Status: N - Only Items Not In Review

Export Dir: C:\infor\FACTS78_Demo\home\N4

Export File Name: []

Overwrite File:

Template

None

Ok

Cancel

Select the action to process

It is important to understand how process warehouse item records (PWIR) works and what it does, as it is possible to use it improperly and caused unintended problems.

Items are exported to a spreadsheet where they can be edited and then imported back into FACTS. When the import takes place, all of the values in the spreadsheet for the items being imported are imported whether or not they were changed on the spreadsheet. If a value was changed in FACTS after the export but before the import, the import will bring back the value that was on the spreadsheet, overwriting the change that was made in FACTS.

To limit the possibility of conflicting changes, when an export is done, the spreadsheet should not be edited over long periods of time. The desired changes should be made and re-imported quickly. Furthermore, it is helpful to limit the items exported and imported, for both speed and limiting unwanted changes.

When items are exported to a spreadsheet, they are flagged as pending review, and the user who exported the item is captured. The items will remain flagged as “pending review” until they are imported or the pending flag is cleared.

When exporting items, you can select to only export items that are not in review (see the Review Status drop box). This is intended to limit the possibility of multiple users exporting the same item to different spreadsheets and stepping on each other's changes.

The options for Action are: Export, Import, and Clear Pending.

When importing, it will import the spreadsheet you currently have open in Excel, and it will only import the visible lines, meaning you can use the Excel filters to only show the lines you want to import.

When exporting and when clearing pending, all of the filters on the PWIR screen are used to determine which items are exported or cleared.

The options for Records are: Only Existing, Only New, and New & Existing

This is a very important field because PWIR can be used to create new warehouse/item records as well as edit existing ones, and you can create new records accidentally if you are not paying attention.

"Only Existing" means export items that are already setup in warehouse/item F/M for the selected warehouse.

"Only New" means export items that are setup in the "Warehouse to check" warehouse but are not in the selected warehouse. These items, when imported, will create NEW warehouse/item records.

All of the other fields except Export File Name and Overwrite are filters for selecting which items to export. All import filtering is done on the spreadsheet itself.

The spreadsheet that is created is a copy of the standard spreadsheet included with FACTS, and it is version controlled. If an export is made to one version of the spreadsheet, and changes are made to the PWIR program that require a newer version, the prior spreadsheet will not be able to be imported.

PO Static Control F/M

PO Static Control has several settings that are important to implementation of FACTS replenishment.

First is the Use Surplus option on the General tab. Selecting this causes the BCC to automatically look for and display available surplus stock in other warehouses. If you have a single-warehouse implementation, this should be turned off.

The other important set of values is on the Buyers Control Center tab:

Rank	Special Order	Backorder	Critical	NPNA	Replenishment	Surplus Wh/Tr
A	90	80	70	60	50	70
B	90	80	70	60	50	70
C	70	70	50	50	40	50
D	70	70	30	30	30	30
E	70	70	30	30	30	30

Color Codes

- 90-100
- 80-89
- 70-79
- 60-69
- 50-59
- 0-49

Enter the priority of 'A' ranked special order items (0-100)

The color coding and prioritization of replenishment actions in the BCC is controlled by these settings. The section on the BCC above explains what constitutes Critical, NPNA, etc. Refer to that section for a thorough description of those terms.

When FACTS is doing a “recalculate” function in the BCC, it evaluates each item in the ARP and selects for it the highest value it achieves based on the table above. If the item has some backorders, and is also critical and it is an A-ranked item, its highest category is Backorder, and its value is 80.

The BCC then accumulates the number of items in each category for display on the BCC summary screen, and assigns the highest value of any items in the ARP to the ARP itself. This determines the color coding of the ARP line and the relative position of the line in the list.

On the detail screen, each item’s value is used to determine its position in the grid and its highlight color.

As you can see above, the relative importance of an A-ranked item is greater than a C, D or E-ranked item. This relative importance can be adjusted and tweaked to meet your specific needs.

For example, the chart above indicates that an A-ranked item that is critical gets a priority of 70, which is equivalent to a special order C-ranked item. If you considered all special orders of any rank to be the same level of importance, you could change the special order values for C, D and E ranks to 90.

Overview

Replenishment Parameters F/M encompasses the parameter settings necessary to utilize many of the features of FACTS' advanced inventory management. The inventory and replenishment settings can be established at the company, warehouse, from warehouse, vendor, purchasing line, and/or item levels. When FACTS needs to access one of the parameters, it considers what company, warehouse, from warehouse, vendor, purchasing line and item the parameter is needed for and selects the setting to use based on the most specific one available.

The hierarchy, listed from least to most specific is:

- Company
- Warehouse
- Vendor
- Purchasing Line
- Item
- Warehouse / Item
- From Warehouse (for Transfer Review Cycle only)

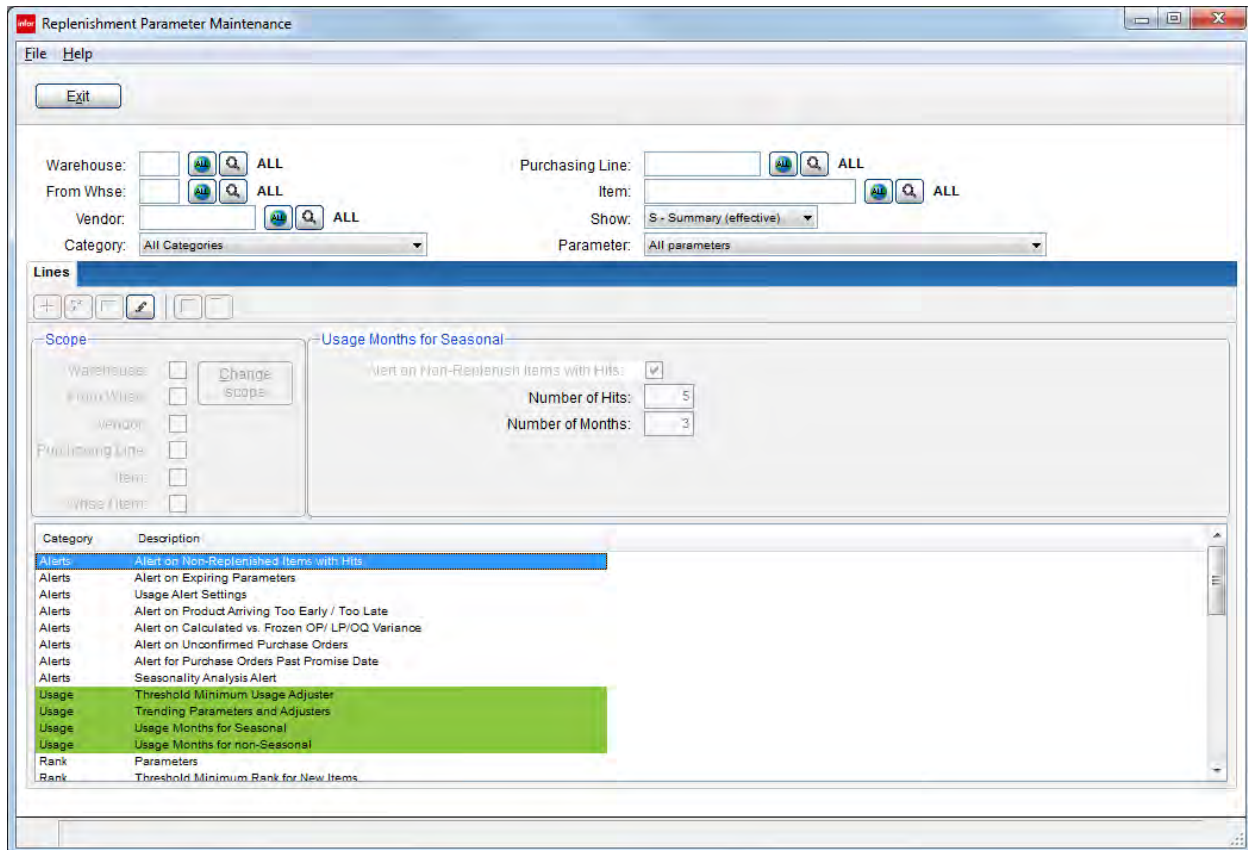
It is helpful to set parameters at the least specific hierarchy as possible, as this reduces the maintenance effort required. For example, if you set safety stock at the company level, it will apply to all items in all warehouses, and changing just that parameter changes the safety stock for all items.

If you then determine that a different safety stock setting is needed for the items from a specific vendor, you can create a safety stock parameter for that vendor. In that case, all items from that vendor will get the vendor-specific setting, and all other items will get the company setting.

Not all parameters are allowed to be set at any and all levels. For example, setting a T-Min Order Point is something that can only be done at the most specific, warehouse-item level.

Creating and Editing Parameters

Replenishment Parameter Maintenance provides access to all of the available parameter settings at all of the hierarchy levels (referred to as the Scope).



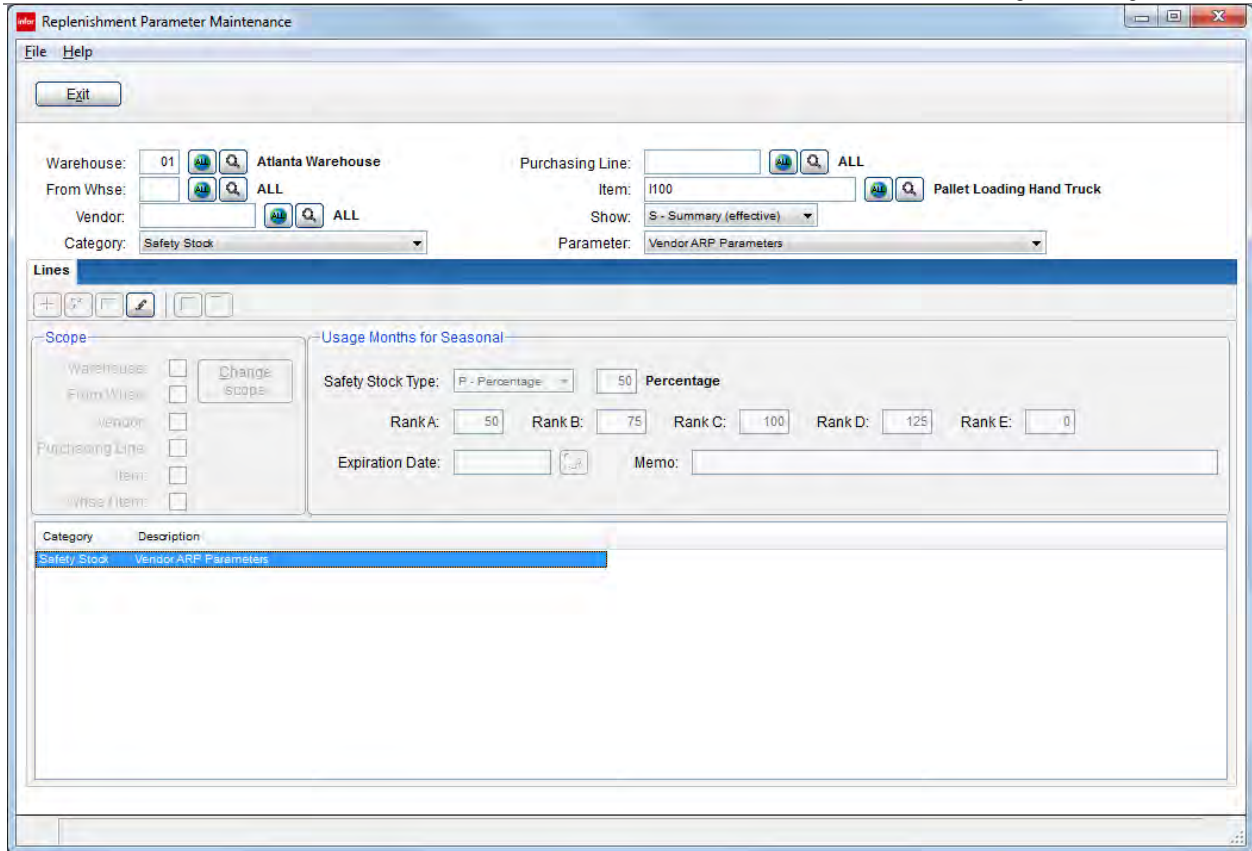
Replenishment Parameter Maintenance organizes the available parameters into categories. By default, all categories are displayed. By choosing a specific category in the Category drop box, the display will be limited to only parameters in that category.

The fields for Warehouse, From Whse, Vendor, Purchasing Line and Item are used to control the scope of the parameters entered. Notice the “Scope” section of the line entry and the “Change Scope” button. When editing a parameter, you can set the scope of the parameter by selecting Change Scope. The scopes that are available for any particular parameter are determined by what is valid for the parameter and by which fields (Warehouse, Vendor, etc.) you have entered values for.

For example, if you entered warehouse 01 in the Warehouse field, the parameters that are allowed to be set at the warehouse level will be able to have the warehouse scope selected. If the warehouse field is blank, none of the parameters will allow the warehouse scope to be selected.

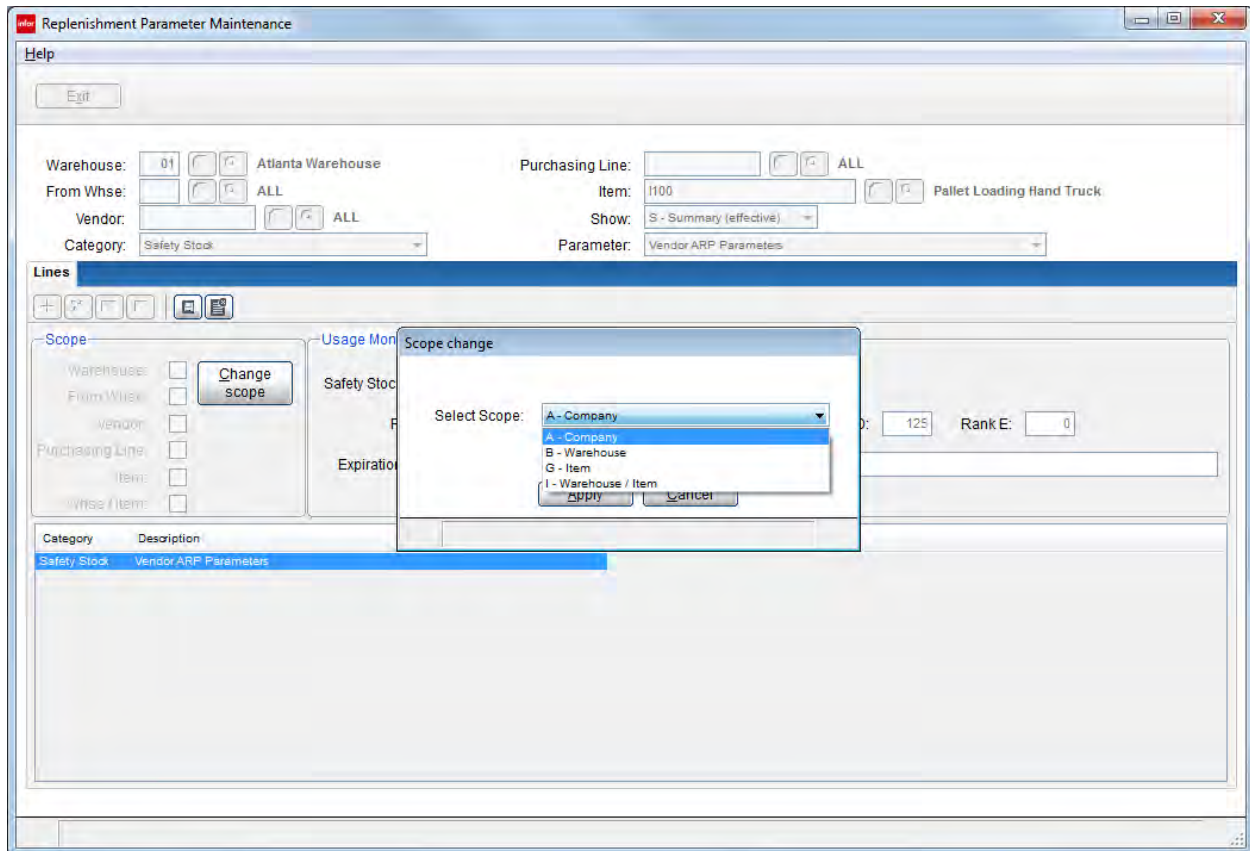
When setting company-level parameters, all of the fields can be left blank.

To better explain the relationship between the fields and the scope, consider the screen below where warehouse 01 and Item I100 are entered, and we have selected the Safety Stock, Vendor ARP Parameter:



Notice that the line values displayed are type percentage, the values are 50, 50, 75, 100, 125 and 0, and that none of the checkboxes under “Scope” are checked. The fact that none of the scope selections are checked indicates that the safety stock parameters displayed are company-level parameters.

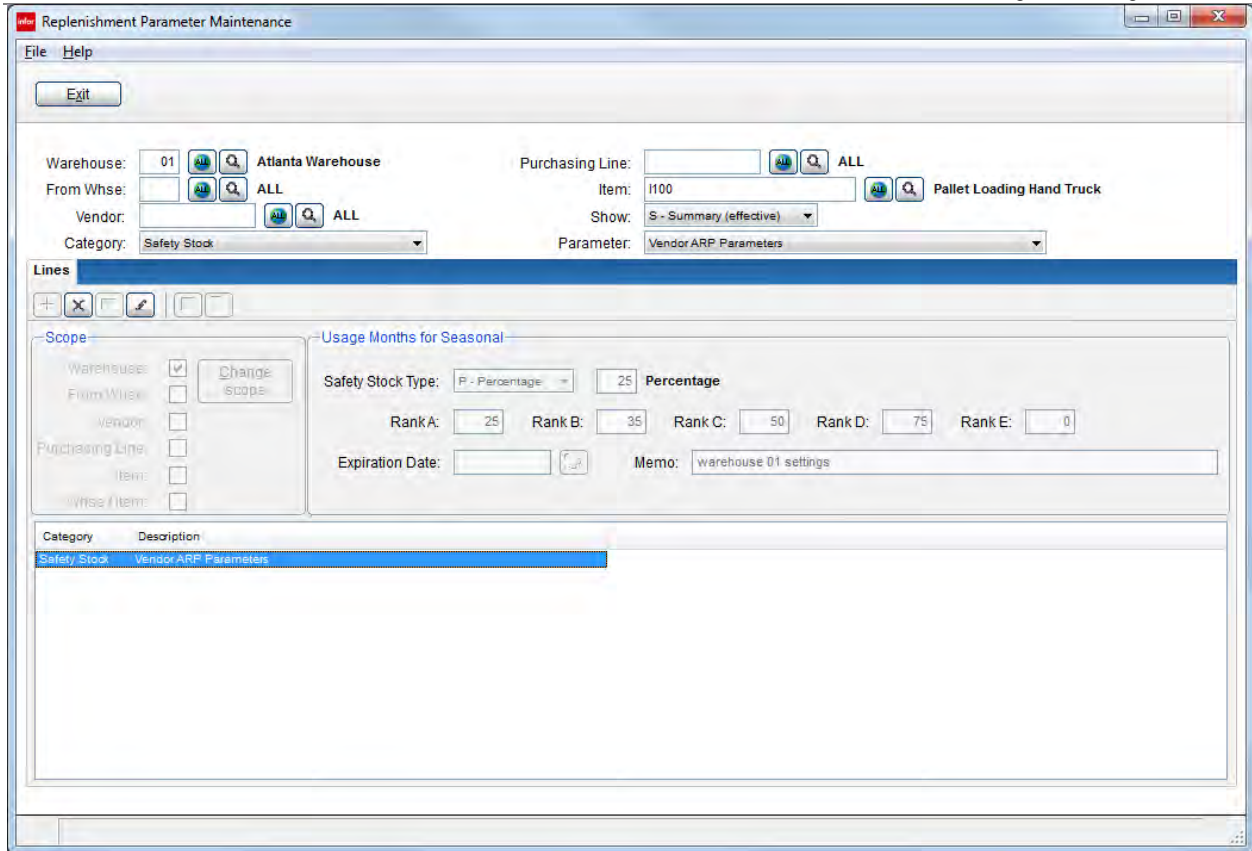
Editing the line and clicking the “Scope” button presents the following options:



Company, Warehouse, Item and Warehouse/Item are all available because this parameter allows those scopes and because values have been entered for warehouse and item.

If values had been entered for Vendor and Purchasing Line, additional scope options would be available in this window.

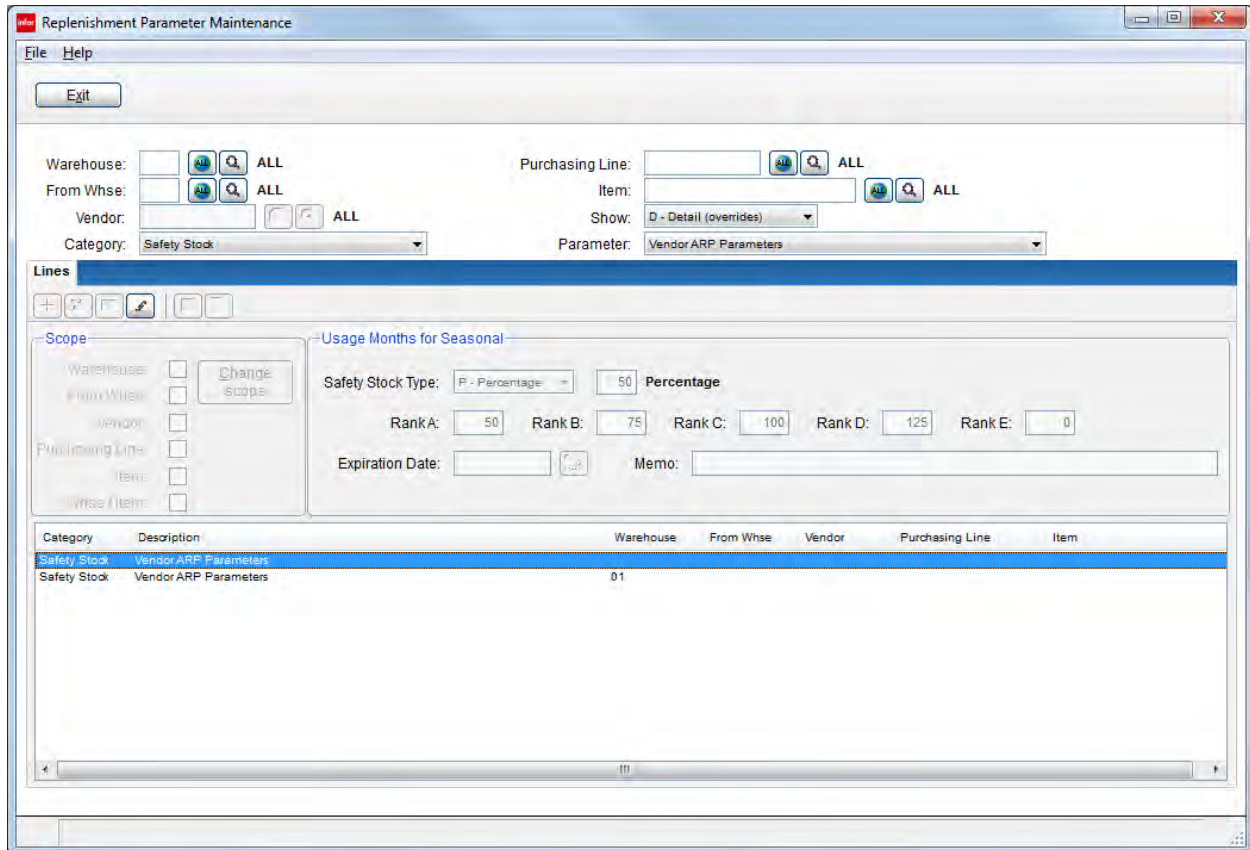
Selecting Warehouse for the scope and changing the safety stock parameters creates a new parameter at the warehouse level, leaving the company-level parameters unchanged. Before the record is saved, you will be prompted to verify that you intend to change to a more specific scope.



Notice in the screen above that the warehouse scope checkbox is selected, indicating that the parameters displayed are at the warehouse level.

The “Show” drop box is set to Summary, which tells RPM to display the parameter that would be the effective parameter given the values entered in the fields (in this case warehouse 01 and item I100).

Changing the Show drop box to Detail and clearing the Warehouse and Item fields will display all of the parameters entered for safety stock for any level:



This shows that there are two parameters entered for safety stock – a company level parameter and an override for warehouse 01.

Using these techniques, you can enter parameters at any of the available scopes and review all of the parameters that are on file. Deleting parameters at various levels is simply a matter of using the delete line option.

Available Parameters

We will now review all of the available parameters in the order they are presented in replenishment parameter F/M.

Alert on Non-Replenished Items with Hits

The term “hits” refers to an item appearing on a sales order, transfer or other document that drives activity in the warehouse.

If an item is set not to be replenished, it may be important to know that an increased level of activity is occurring with this item so it can be reevaluated. If an increased level of activity is occurring on a non-replenished item, it may be desirable to start stocking the item.

This alert can be set at any of the levels in the replenishment parameter hierarchy other than From Warehouse.

Alert on Non-Replenished Items with Hits	Indicates whether an alert should be generated
Number of Hits	The # of document hits needed for an alert to be raised
Number of Months	The # months back to look for hits

If an item that is not replenished has the indicated # of document hits in the # months specified (going back from today), an alert will be raised.

Alert on Expiring Parameters

Most of the parameters, when set at a scope that is more specific than company level, will require entry of an expiration date. FACTS will generate an alert to the responsible buyer before the parameter expires, giving the buyer the opportunity to review whether the parameter should be extended, adjusted or allowed to expire.

Once the expiration date has been reached for a parameter, the parameter is removed.

This parameter can only be set at the company level.

Alert on Expiring Parameters	Indicates whether an alert should be raised prior to a parameter expiring
Days Before Expiration	The number of days prior to the expiration to raise the alert

Usage Alert Settings

FACTS flags usage as abnormally high or low based on the setting in this parameter. The summary screen of Usage Review displays whether the 30-day usage is high or low.

The last 30 days of usage is compared to the prior number of months' usage indicated by this parameter. The prior months usage is then multiplied by the multipliers indicated to determine whether the last 30 days usage should be considered high or low.

Example: if usage months was 3, high usage multiplier was 1.5 and low usage multiplier was .5, if the current month's usage was higher than the sum of the prior 3 months' usage times 1.5, the current month would be considered hi usage. If it was lower than the prior 3 months times .5, it would be considered low.

Usage Months	The number of months usage to use as the comparison usage
High Usage Multiplier	The value for the multiplier when calculating high usage.
Low Usage Multiplier	The value for the multiplier when calculating low usage.

Alert on Product Arriving Too Early/Too Late

This alert is referred to as the “timeline analysis.” It provides the buyer with advance notice that a PO or transfer will not arrive before a stockout is likely to occur or if, when the goods arrive, there will be a serious overstock of the item.

Providing that advance notice gives the buyer options to address the issues before they cause potentially serious consequences like losing customers.

The calculations are based on current stocking levels, average daily usage of the items and expected delivery dates of the PO or transfer.

If, based on those values, the item is expected to be stocked out for “Too Late Days” or more when the PO or transfer arrives, an alert will be generated.

For “Too Early Days”, if there will be that many days’ supply or more on hand when the PO or transfer arrives, an alert will be raised.

Alert on Product to Arriving Too Early/Too Late	Indicates whether an alert should be raised when a product is expected to arrive too early or late
Too Early Days	The expected number of days’ supply that will trigger an alert
Too Late Days	The number of days of expected stockout that will trigger an alert

Alert on Calculated VS. Frozen Order Point / Line Point / Order Quantity Variance

A warehouse/item can have its Order Point, Line Point and/or Order Quantity set and frozen with an expiration date for the freeze. Freezes can be dangerous because they are set at a specific point in time, and while the frozen values may have been reasonable at that time, things can change.

For example, key customers may discontinue purchasing an item, but the frozen values have the buyer continuing to stock unnecessarily high quantities. Conversely, sales for an item may accelerate, but the frozen values are stuck at low values causing frequent stockouts.

To help alleviate these issues, you can setup the parameters for this alert.

FACTS automatically recalculates the replenishment controls each day. In the case of items with frozen controls, the calculated values are simply ignored in favor of the frozen values. FACTS will check the calculated values against the frozen values, and if they deviate by more than the limits established in this parameter, an alert will be sent to the responsible buyer so they can evaluate whether the frozen value is still appropriate.

Alert on Variances Exceeding These Limits	Indicates whether an alert should be raised when a variance exceeds the specified limits
<p>Variance Exceeding values can be entered in Units, Cost, and/or Percent. Variance limits can be entered separately for Order Point, Line Point and/or Order Quantity. If the variance between the Calculated versus Frozen value exceeds any one of the values, an alert will be raised. If a value is left blank, it is ignored for purposes of raising an alert.</p>	
Units	OP, LP and OQ are all unit quantity references. If

	the frozen value is higher or lower than the calculated value by the entered number of units, an alert will be raised.
Percentage	If the frozen value is the entered percentage higher or lower than the calculated value, an alert will be raised.
Cost	The difference in the frozen units and the calculated units will be multiplied by the item's cost, and if the total cost difference is higher than the entered cost, an alert will be raised.

Alert on Unconfirmed Purchase Orders

Many distributors request that the vendor confirm receipt of all purchase orders. This process may create some additional administrative work, but a lost purchase order that isn't discovered for many days can cause stockouts and angry (or lost) customers.

Purchase Order Entry had a field for indicating that the purchase order has been confirmed by the vendor. It is manually updated, and use of it is optional.

If you select this setting, buyers will receive an alert if a PO for a vendor they are responsible for remains unconfirmed after the number of days specified.

This parameter can be set at the company, warehouse, vendor, and/or purchasing line levels.

Alert on Unconfirmed Purchase Orders	Indicates whether an alert should be raised for purchase orders that have not been confirmed in a specified number of days.
Number of Days	If the PO remains unconfirmed this many days after it was printed, an alert will be generated.

Alert for Purchase Orders Past Promise Date

There are many reasons vendor might be late delivering a purchase order, and the sooner your buyer is made aware of the problem, the more likely you will be able to resolve the situation before it becomes a crisis.

This parameter indicates that if a PO is more than the specified number of days past the promise date and has not been received, an alert should be raised to the buyer.

This parameter can be set at the company, warehouse, vendor and/or purchasing line level.

Alert on Purchase Orders Past Promise Date	Indicates whether an alert should be raised for purchase orders that have exceeded their promise date.
Number of Days	The number of days past the promise date for a purchase order to generate an alert.

Seasonality Analysis Alert

Seasonality analysis will look at a full year's activity, and if the activity is concentrated in only a few months, it will be considered seasonal. What the level of concentration is and how many months it is concentrated in are selected in this parameter.

For example, some may consider an item seasonal if 75% of the activity occurs in a 3 month period. Others may consider it seasonal if 80% occurs in a 4 months period.

In either case, items with too few total hits can be excluded from the analysis, as can items that have not been setup in the warehouse for a long enough period of time.

In warehouse/item f/m, the Usage Type is selected and may be frozen. This field can be set to Trend, which is how FACTS flags an item as seasonal.

If seasonality analysis determines that the usage type is set incorrectly, an alert will be generated.

If the usage type is frozen, the item will not be analyzed. If seasonality analysis raises an alert, but you are certain the usage type is correct, simply freeze the usage type so the alert will not be raised in the future.

This parameter can only be set at the company level.

Perform Seasonality Analysis	Whether the analysis should be performed at all.
Percentage of Hits	The percentage of hits that must occur in the specified number of months for the item to be considered seasonal
Months of Hits	The number of months that must contain the entered percentage of hits for the item to be considered seasonal
Months Established Hits	New or "young" items will not have enough history for seasonality analysis to be meaningful. Typically 18 or more months would be required.
Minimum Hits	If an item has very few hits in the past year, the seasonality analysis will not be meaningful.

Threshold Minimum Usage Adjuster

Usage is the most basic measurement in the replenishment process, and having good usage values is critical. There are several situations in which the actual usages number can produce distorted average usage values, and T-Min Usage is one way these can be addressed.

When new items are setup to be stocked in a warehouse, there is usually an expected or projected sales/usage amount, and a time period in which the item is expected to reach those numbers. During that start-up time, it can be helpful to have the system act as if it had at least that amount of usage.

Also, some items experience very sporadic usage throughout the year. They aren't seasonal items, but the usage is unpredictable and may go months with no sales, then have significant sales. These items can be managed by establishing a T-Min usage.

As described above, a T-Min value will be ignored if the actual usage is higher than it, allowing items that exceed expectations to be unhindered by the T-Min value.

T-Min Usage can only be set at the warehouse/item level.

T-Min Usage Quantity	The quantity to use as the minimum monthly usage.
Expiration Date	All T-Min Usage entries must have an expiration date.

Trending Parameters and Adjusters

A trend % of 100 means that the current year is exactly the same as last year.

When calculating average usage for a Trend type item, it can be helpful to establish some limits using the values in this parameter set.

Generally, at the beginning and end of the sales season, small differences in transactions from one year to the next can cause unreasonable trends to be calculated.

When either the minimum or maximum trend % is applied, an alert will be raised to the appropriate buyer so they can verify, if desired, that the data is accurate.

The prior and current year hits values must be achieved before a trend % will be applied. This prevents the minimum and maximum trend %'s from being applied when statistically meaningless numbers are being used.

Not applying a trend % is the same as using a trend % of 100.

This parameter can be set at any level.

Apply seasonal trend minimum and maximum	Whether the minimum or maximum should be applied
Minimum Trend %	The smallest trend % to allow
Maximum Trend %	The largest trend % to allow
Prior Year Hits	The minimum number of hits the item must have in the prior year before any trend % will be applied
Current Year Hits	The minimum number of hits the item must have in the current year before any trend % will be applied

Usage Months for Seasonal and Non Seasonal

When calculating average usage, the time period that is analyzed is set by these two parameters.

When you use fewer months of activity to calculate average usage, your replenishment will respond more quickly to changes in sales. But using too few months will result in statistically questionable results.

So a balance should be struck so you have enough data to make the averages meaningful, but you don't use data that is older than necessary.

To find this balance, we allow the number of months to be based on the item's rank, which is a measure of the relative amount of activity the item experiences.

Typically the fastest-moving items will use 3 months of usage, and the slowest will use 6.

You are also able to use a different number of months for seasonal vs. non-seasonal items.

Both of these parameters can be set at the company and/or warehouse levels.

Rank A	The number of months to analyze when calculating average usage for an A ranked item.
Rank B	The number of months to analyze when calculating average usage for a B ranked item.
Rank C	The number of months to analyze when calculating average usage for a C ranked item.
Rank D	The number of months to analyze when calculating average usage for a D ranked item.
Rank E	The number of months to analyze when calculating average usage for an E ranked item.

Rank

Ranking is a method of classifying products based on their relative activity to other products in your warehouse. Activity is measured by document hits - the number of times a product appears on a sales order, warehouse transfer, or lost business transaction, regardless of quantity or cost.

The products with the most activity are ranked as A items, and products with fewer hits are ranked as B, C, D, and E, based on how your ranking levels are defined.

Rank Parameters

Rank is calculated based on the rank type and the associated values in this parameter.

The Percentage type will calculate rank by adding up all of the hits for all of the items in the warehouse over the number of months specified. Then ranks are established by establishing break points based on the percentages assigned.

For example, if A is 80%, we would calculate how many hits is 80% of all of the hits for all items. Listing all items, with the most hits at the top and the least at the bottom, we accumulate total hits starting from the top of the list, going down. When the accumulated hits reaches 80% of all hits, all items above that point and any additional items with the same number of hits below that point, will be A items.

That process is continued for the remaining items in the warehouse.

The Hits type is a straight number of hits over the number of months selected. All items with the number of hits or higher are given the indicated rank.

Most companies use the Percentage type calculation for rank.

This parameter can be set at the company and/or warehouse level.

Rank Type	Select Percentage or Hits type ranking
Months Used to Calculate Rank	Number of months of activity analyzed when calculating rank
Rank A	The number of hits or the percentage of hits for an item to be an A ranked item
Rank B	The number of hits or the percentage of hits for an item to be a B ranked item
Rank C	The number of hits or the percentage of hits for an item to be a C ranked item
Rank D	The number of hits or the percentage of hits for an item to be an D ranked item
Rank E	The number of hits or the percentage of hits for an item to be an E ranked item

Threshold Minimum Rank for New Items

This setting applies to all new replenished items setup in a warehouse. Based on the record established date in the warehouse/item f/m, for the first number of months specified in this parameter, the item's rank will not fall below the T-Min rank.

During the first given number of months, if the item's calculated rank is higher than the T-Min, the calculated rank will be used.

This prevents new items with very little usage from falling immediately to an E rank, which would cause replenishment to stop.

After the given number of months, the item's calculated rank will not be subject to the minimum.

This parameter can be set at the company and/or warehouse level.

Minimum Rank	The minimum rank that will be used new replenished items in the warehouse
Number of months	The number of months the minimum rank will be used

Safety Stock

Safety stock, also referred to as safety allowance, is the stock you carry to account for ordering delays, late shipments, unpredictable lead times, slow receiving, etc. Proper safety stock values can protect against stockouts without bloating inventory.

If safety stock is never used, you are likely carrying too much of it. If you are experiencing many stockouts or are frequently having to make emergency buys, safety stock may be too low.

In normal environments, you will occasionally dip into safety stock and will occasionally require emergency buys or have stockouts.

The more consistent you are with placing orders on time, following up with vendors to ensure they received your purchase order, receiving items as they arrive, etc., the more likely you can lower safety stock.

Furthermore, the more accurate you are with recording usage and lost sales, the more accurate your inventory amounts will be, resulting in fewer stockouts.

Vendor and Transfer ARP Safety Stock Parameters

Safety stock parameters can be set separately for items replenished from a vendor (Vendor ARP) and items replenished from a distribution center warehouse (Transfer ARP), reflecting the fact that you have more control over the performance of your own DC than that of your vendors.

Safety stock type controls how safety stock is calculated, and it can be set to either Percentage of Lead Time or Number of Days. Both settings result in a number of days supply of safety stock.

Percentage means to take the average lead time for the item, then take the given % of that lead time. For example, if the lead time is 10 days, and you are using 30%, the safety stock will be calculated at 3 days' supply (ADU) of the item.

These parameters can be set at the company, to warehouse, from warehouse (for Transfer ARP), vendor and/or purchasing line (for Vendor ARP), item, and/or warehouse item levels, allowing you very tight control over safety stock levels.

Safety Stock Type	Indicates either Days or Percentage
Default Value	The default number of days or percentage safety stock if rank is not known
Rank A	The # days or percentage used for A ranked items
Rank B	The # days or percentage used for B ranked items
Rank C	The # days or percentage used for C ranked items
Rank D	The # days or percentage used for D ranked items
Rank E	The # days or percentage used for E ranked items

Vendor and Transfer ARP Safety Stock Adjusters

Because safety stock can be a function of lead time and is based on ADU, unreasonably high or low safety stock values can be calculated. To prevent very large or meaninglessly low safety stock values, you can establish minimum and maximum days of safety stock, by item rank, with these parameters.

These parameters can be set at the company, to warehouse, from warehouse (for Transfer ARP), vendor and/or purchasing line (for Vendor ARP), item, and/or warehouse item levels

Minimum Days (Ranks A – E)	The minimum Safety Stock days
Maximum Days (Ranks A – E)	The maximum Safety Stock days

Average Shipment Quantity (ASQ) Order Point Adjuster

ASQ is used to adjust order point to account for some usage/sales patterns which normal usage math fails to address. If you have few customers buying an item infrequently but in large quantities, average usage may calculate an order point that will never put enough stock on the shelf to service your larger orders.

ASQ increases the order point to the average of all your shipments during the specified number of months (in the ASQ / Five Hi Months parameter) to ensure you order enough to fully service your large orders.

5-Hi is a more specific/targeted version of ASQ. When working through challenging sales patterns, try ASQ first, then implement 5-Hi if you are still not getting the order quantities you need to service your larger customers.

ASQ and 5-Hi should typically be implemented at lower levels on the hierarchy to account for usage patterns for specific items or groups of items. These settings are not typically intended to be implemented for an entire warehouse, for example.

Use ASQ	Indicates whether to use the ASQ adjuster
Include Transfers in ASQ	Indicates whether warehouse transfer shipment quantities should be included in the ASQ calculations. For central distribution centers, this should be set to Yes.
ASQ maximum dollar increase	If entered and the cost of the increase in order point for ASQ exceeds this maximum, ASQ will not be used.
ASQ minimum hits	The # of document hits required before ASQ can be calculated

Five-high ASQ Order Point Adjuster

Five Hi is used to adjust order point to account for some usage/sales patterns which normal usage math fails to address. If you have many customers buying an item in relatively low quantities, and very few customers buying that item in very large quantities, average usage may calculate an order point that will never put enough stock on the shelf to service the large orders.

Five Hi increases the order point to the average of the largest single shipments to ensure you order enough to fully service your large orders.

Use 5-Hi	Indicates whether to use the 5-Hi adjuster
Include Transfers in 5-Hi	Indicates whether transfer shipment quantities should be included in the calculation – when using a central distribution center, this should be set to Yes.
5-Hi maximum dollar increase	If entered and the cost of the increase in order point for 5-Hi ASQ exceeds this maximum, 5-Hi ASQ will not be used.
5-Hi minimum hits	The # of document hits required before 5-Hi ASQ can be calculated

ASQ/Five Hi Months (Usage Periods for ASQ and Five-Hi calculations)

If ASQ or Five Hi is in effect for calculating the order point for an item, the number of periods in the ASQ and Five Hi can be entered here. If omitted, the Rank Usage period that corresponds to the item ranking will be utilized for ASQ and Five Hi calculation. By default, 12 periods of usage will be utilized for ASQ and Five Hi calculation.

Months used to calculate ASQ	The number of months to analyze when calculating ASQ.
Months used to calculate 5-Hi	The number of months to analyze when calculating 5-Hi.

Threshold Minimum Order Point

There are some circumstances in which you want to guarantee a specific quantity of an item will be on the shelf, even though usage numbers alone may not justify it. For example, you may have made an agreement with an important customer to keep a minimum quantity on the shelf. The T-Min Order Point establishes the minimum order point for the item. If the calculated order point is lower than the T-Min, it will be increased to the T-min. If the calculated order point is higher than the T-Min, the calculated value will be used.

T-Min Order Point can only be set at the warehouse/item level, and it is also accessible from Warehouse/Item F/M.

Apply a threshold minimum	Indicates whether to apply a T-Min order point
T-Min Order Point	The minimum order point

Order Quantity Method (OQM) Parameters

These parameters can be set separately for Vendor and Transfer ARPs and separately for seasonal (Trend) and non-seasonal items. R-Cost (reorder cost) can certainly be different when ordering from a vendor vs. transferring in from your own distribution center, and you may choose to use EOQ for one vs. the other.

Similarly, K-Cost (cost to carry) can be different for seasonal items, etc.

However you choose to break it down, having accurate K-Cost % and R-Cost \$ is needed if you choose to implement EOQ.

R Cost \$	Reorder cost - the cost to process an order for an item
K Cost %	The annual cost to carry inventory divided by the average inventory value.
Minimum Days Supply	The minimum days supply to use when calculating EOQ
Maximum Days Supply	The maximum days supply to use when calculating EOQ

Use EOQ	Indicates you want to apply the economic order quantity calculation
---------	---

Apply Rounding to Order Quantity

Many vendors refuse to break boxes or pallets of some items. If you have such items that must always be ordered in specific increments, you can activate rounding for purchase orders and/or warehouse transfers by this parameter.

Apply Rounding on Purchase Order	Indicates whether you want PO order quantities to be rounded
Apply Rounding on Transfers	Indicates whether you want Transfer order quantities to be rounded

Rounding Value for ARP Vendor

If rounding is applied to PO order quantities, you can indicate the quantity and UM for a specific item by setting this value.

Round to the next	The amount to round the recommended order quantity to the next multiple of for purchase orders
UM	The unit of measure of the round to quantity

Rounding Value for ARP Transfer

Round to the next	The amount to round the recommended order quantity to the next multiple of for warehouse transfers
UM	The unit of measure of the round to quantity

Abnormal Lead Time Parameters

FACTS will automatically notify the buyer with an alert when a new lead time appears to be unusual. The settings in this parameter are used to determine what is abnormal.

There is a separate setting for lead times on POs and those on transfers, as you may have different standards for what is abnormal for your own distribution center.

% of Average for Too Low	If the new lead time is less than this % of the current average, it will be flagged as abnormal, and an alert will be raised to the buyer
% of Average for Too High	If the new lead time is more than this % of the current average, it will be flagged as abnormal, and an alert will be raised to the buyer

Receipts Used to Calculate Lead Time

When calculating the average lead time, we want recent information, and including too many receipts can allow recent performance to be hidden.

This parameter controls how many receipts to use in the average and how far back the system is allowed to go when looking at receipts.

Documents that are set to Ignore lead time are skipped.

Number of Receipts	This is the maximum number of receipts to use for the calculation
Number of Months	This is the maximum number of months back a receipt can be to be used in the calculation

Vendor ARP and Transfer ARP Lead Time Parameters

Lead Time is part of the calculation for Order Point, and in cases where very long lead times occur, they can cause the order point to grow to unrealistically high levels. Similarly, if average lead time ends up being a very small number, it can lead to meaninglessly small order points.

To prevent either of these situations from occurring, you can establish a minimum and maximum lead time to use in the order point calculations.

Use a Minimum / Maximum Days for Lead Time	Indicates whether to apply a minimum and maximum lead time
Lead Time Minimum Days	Smallest # of days to use for the average lead time
Lead Time Maximum Days	Largest # of days to use for the average lead time

Review Cycle

Review Cycles are a critical part of the replenishment calculations and are required for all established ARPs for replenished items.

Typically review cycles are maintained in Review Cycle Setup, but they can also be maintained in Replenishment Parameter F/M. For details on review cycles, see the section on Review Cycle Setup.

Buyer Code	Buyer code for the ARP
Review Cycle	The number of days expected between orders for this ARP
Review Cycle Min	Minimum number of days to use when calculating a new review cycle
Review Cycle Max	Maximum number of days to use when calculating a new review cycle
Buying Target \$	The target order amount (optional)
Buying Target Lbs	The target weight (optional)

Buying Target Cubes	The target volume (optional)
---------------------	------------------------------

Freeze Order Point / Line Point / Order Quantity

A warehouse/item can have its Order Point, Line Point and/or Order Quantity set and frozen with an expiration date for the freeze. These values are also available to be maintained from Warehouse/Item F/M.

Order Point	Indicates whether the order point is frozen and the value
Line Point	Indicates whether the line point is frozen and the value
Order Quantity	Indicates whether the order quantity is frozen and the value

Freeze Rank

A specific item's rank in the warehouse can be set and frozen for a time period. This will prevent the system from automatically recalculating the item's rank until the expiration date is reached. This value can also be maintained from Warehouse/Item F/M.

Freeze Rank	Indicates whether the rank is frozen and the rank
-------------	---

Freeze Lead Time

The lead time to use for a warehouse/item can be set to a specific value and frozen to prevent the system from recalculating it. This can be useful for new vendors where there is little history from which to calculate an accurate lead time.

This value can also be maintained in Warehouse/Item F/M.

Freeze Lead Time	Indicates whether the lead time is frozen and the value
------------------	---

Freeze Safety Stock

The safety stock for a warehouse/item can be frozen to prevent the system from recalculating the safety stock value.

This value can also be maintained in Warehouse/Item F/M.

Freeze Safety Stock	Indicates an item's safety stock is frozen
---------------------	--

Overview

The following alerts are integral parts of the advanced inventory management system in FACTS. These alerts are automatically delivered to the proper buyer via the Exception Control Center or email, based on the settings in Buyer Code F/M.

To properly use the FACTS replenishment system, you must be familiar with these alerts and be prepared to respond to the issues they represent.

See the section above on how to use the Exception Control Center for more information on how to see and respond to the alerts.

Note that the re-raise intervals are the number of days, after the alert is raised, that the alert will be re-raised to the user if the condition that caused the alert remains. Whether the alert was ignored or deleted, it will be moved back to the top of the list if the condition still exists. This helps prevent alerts being forgotten or overlooked.

The available subscription values are used for subscribing to the alerts outside of the ECC. Alerts will automatically be delivered to the appropriate buyer, so only users who are not established buyers will need to be concerned with the subscription values.

Available System Alerts

The available system alerts are described in this section.

IC-5HI 5Hi Max Dollar Increase Exceeded

The cost associated with increasing the calculated order point to the average of the 5 highest shipment quantities exceeded the limits of the increase as established in Replenishment Parameter Maintenance.

When this limit is exceeded, order point is not adjusted at all. Proper responses to this alert could include increasing the limit, setting a T-Min Order Point for the effected item, or making a mental note of the situation and doing nothing.

Available Subscription values: Warehouse, Item

Re-raise interval defaults to 14 days

IC-ABLTPO Abnormal Lead Time on a PO

A new receipt of a PO had a lead time that is abnormally high or low based on the settings in Replenishment Parameter Maintenance.

Proper responses to this alert could include going to Lead Time Review and entering a qualified lead time, setting the lead time to ignore, or doing nothing if the lead time was valid.

Available Subscription values: Warehouse, Vendor

Re-raise interval defaults to 7 days

IC-ABLTTR Abnormal Lead Time on a Transfer

A new receipt of a warehouse transfer had a lead time that is abnormally high or low based on the settings in Replenishment Parameter Maintenance.

Proper responses to this alert could include going to Lead Time Review and entering a qualified lead time, setting the lead time to ignore, or doing nothing if the lead time was valid.

Available Subscription values: To Warehouse, From Warehouse

Re-raise interval defaults to 7 days

IC-ABUSAGE Abnormal Usage

Usage for the last 30 days is abnormally high or low based on the settings in Replenishment Parameter Maintenance.

Proper responses to this alert could include going into Usage Review and verifying whether the usage is accurate, examining why usage is dropping or rising so quickly, adjusting qualified usage or the update usage flag on specific documents, or doing nothing other than making a mental note to keep an eye on the item.

Available Subscription values: Warehouse, Item

Re-raise interval defaults to 14 days

IC-ASQ ASQ Max Dollar Increase Exceeded

The cost associated with increasing the calculated order point to the average shipment quantity exceeded the limits of the increase as established in Replenishment Parameter Maintenance.

When this limit is exceeded, order point is not adjusted at all. Proper responses to this alert could include increasing the limit, setting a T-Min Order Point for the effected item, or making a mental note of the situation and doing nothing.

Available Subscription values: Warehouse, Item

Re-raise interval defaults to 14 days

IC-AVGLTV Average Lead Time Limits Applied to Vendor

A new PO was received, and when the new average lead time was calculated, it was outside the limits established in Replenishment Parameters Maintenance.

Proper responses to this alert could include going to Lead Time Review to investigate whether the recorded lead times are accurate and reviewing the limits you have established in Replenishment Parameter F/M to determine whether they are appropriate.

Available Subscription values: Vendor, Warehouse, Item

Re-raise interval defaults to 14 days

IC-AVGLTW Average Lead Time Limits Applied to Warehouse

A new transfer was received, and when the new average lead time was calculated, it was outside the limits established in Replenishment Parameters Maintenance.

Proper responses to this alert could include going to Lead Time Review to investigate whether the recorded lead times are accurate and reviewing the limits you have established in Replenishment Parameter F/M to determine whether they are appropriate.

Available Subscription values: From Warehouse, To Warehouse, Item

Re-raise interval defaults to 14 days

IC-CALCVAR Calculated Value Deviates from Frozen Value

One of the frozen values (order point, line point or order quantity) on a warehouse/item deviates from the calculated value by more than the limits established in Replenishment Parameter F/M

Proper responses to this alert could include reviewing the frozen values to determine whether they are still valid, should be adjusted, or should be removed altogether.

Available Subscription values: Warehouse, Item

Re-raise interval defaults to 30 days

IC-EXPIRE Replenishment Parameters Expiring or Unfreezing

A parameter in Replenishment Parameter Maintenance is soon to expire or unfreeze and should be evaluated prior to the expiration date.

Proper responses to this alert could include extending the expiration date for the parameter or reviewing the parameter and allowing it to expire.

Available Subscription values: To Warehouse, Vendor, Purchasing Line, From Warehouse, Item

Re-raise interval defaults to 7 days

IC-MAXRCV Max Review Cycle for a Vendor has Been Exceeded

Based on the last purchase order date, it is past time to reorder from this vendor. The maximum review cycle, set in Review Cycle Setup, has been exceeded.

Proper responses to this alert could include checking whether you do need to place a PO for this vendor, changing the Max Review Cycle setting, or simply making a mental note and deleting the alert.

Available Subscription values: To Warehouse, Vendor, Purchasing Line

Re-raise interval defaults to 7 days

IC-MAXRCW Max Review Cycle for a Restocking Warehouse Has Been Exceeded

The last time a transfer was made exceeds the Maximum Review Cycle.

Proper responses to this alert could include checking whether you do need to place a transfer from this warehouse, changing the Max Review Cycle setting, or simply making a mental note and deleting the alert.

Available Subscription values: To Warehouse, From Warehouse

Re-raise interval defaults to 7 days

IC-NRWHITS Non-Replenished Item with Hits

An item that is not being replenished has been experiencing an increased level of activity.

Proper responses to this alert could include evaluating the item for what is driving the increased activity, changing the item to a replenished item, or simply making a mental note and deleting the alert.

Available Subscription values: Warehouse, Item

Re-raise interval defaults to 7 days

IC-PASTPD PO Past Promise Date

An existing purchase order is past the established promised date and has not been received yet.

Proper responses to this alert could include calling the vendor to inquire on the delivery status of the PO.

Available Subscription values: Warehouse, Vendor, Ship From

Re-raise interval defaults to 2 days

IC-POCONF Unconfirmed PO

A purchase order remains unconfirmed after the time limit established in Replenishment Parameter Maintenance.

Proper response to this alert could include calling the vendor to inquire whether they received the PO.

Available Subscription values: Warehouse, Vendor

Re-raise interval defaults to 1 day

IC-POEARLY PO to Arrive Too Early

When this PO arrives, there will already be enough available stock to exceed the # days supply specified in Replenishment Parameter Maintenance.

Proper responses to this alert could include calling the vendor to see if the PO can be cancelled, planning to cross-dock the good when they arrive to send them back to the vendor, determining that you should run a promotion on the item to dump the excess stock, etc.

Available Subscription values: Warehouse, Item

Re-raise interval defaults to 3 days

IC-POLATE PO to Arrive too Late for Demand

By the time the PO arrives, this item will have been stocked out for more than the number of days specified in Replenishment Parameter Maintenance.

Proper responses to this alert could include placing an emergency buy or a warehouse transfer to bring in additional stock before the stockout occurs.

Available Subscription values: Warehouse, Item

Re-raise interval defaults to 3 days

IC-RCTR Missing Warehouse Transfer Review Cycle Record

There are replenished items in this warehouse that are setup to be transferred from another warehouse, but the restocking warehouse has no review cycle record setup in Review Cycle Setup.

Review Cycle records are required for all established ARPs. The proper response to this alert is to go to Review Cycle Setup and create the review cycle record.

Available Subscription values: To Warehouse, From Warehouse

Re-raise interval defaults to 7 days

IC-RCV Missing Vendor Review Cycle Record

There are replenished items in this warehouse for this vendor, but the vendor has no review cycle record setup in Review Cycle Setup.

Review Cycle records are required for all established ARPs. The proper response to this alert is to go to Review Cycle Setup and create the review cycle record.

Available Subscription values: To Warehouse, Vendor, Purchasing Line

Re-raise interval defaults to 7 days

IC-SEAS Seasonality/Trend Flag Questionable

Seasonality analysis indicates this item's usage method is potentially set incorrectly.

Proper responses to this alert could include evaluating whether the item's usage type is set correctly, changing the usage type in Warehouse/Item F/M and freezing the Usage Type.

Available Subscription values: Warehouse, Item, Usage Method

Re-raise interval defaults to 30 days

IC-STKOUT Item Stock Has Been Exhausted in this Warehouse

A new transaction for this item has caused the available stock in this warehouse to fall to or below zero.

Proper responses to this alert could include checking for incoming orders for this item and determining whether an emergency buy should be placed.

Available Subscription values: Warehouse, Item

Re-raise interval defaults to 7 days

IC-STLSPO Special Order Suggested PO is Stale

A special order suggested PO remains unaddressed (not pulled onto a document) past the allowable number of days setup in SO Static Control F/M.

Proper responses to this alert could include evaluating whether the suggested special order is still valid or placing the PO to fill the special order.

Available Subscription values: Warehouse, Vendor, Item

Re-raise interval defaults to 1 day

IC-STLSTR Special Order Suggested Transfer is Stale

A special order suggested transfer remains unaddressed (not pulled onto a document) past the allowable number of days setup in SO Static Control F/M.

Proper responses to this alert could include evaluating whether the suggested special transfer is still valid or placing the transfer to fill the special order.

Available Subscription values: To Warehouse, From Warehouse, Item

Re-raise interval defaults to 1 day

IC-TREARLY Transfer to Arrive Too Early

When this transfer arrives, there will already be enough available stock to exceed the # days supply specified in Replenishment Parameter Maintenance.

Proper responses to this alert could include calling the DC warehouse to see if the transfer can be cancelled, planning to cross-dock the good when they arrive to send them back to the DC, determining that you should run a promotion on the item to dump the excess stock, etc.

Available Subscription values: Warehouse, Item

Re-raise interval defaults to 3 days

IC-TRLATE Transfer to Arrive too Late for Demand

By the time the transfer arrives, this item will have been stocked out for more than the number of days specified in Replenishment Parameter Maintenance

Proper responses to this alert could include placing an emergency transfer to bring in additional stock before the stockout occurs.

Available Subscription values: Warehouse, Item

Re-raise interval defaults to 3 days

IC-TRNDLIM Seasonal Trending Limits Applied

The seasonal trend percentage for this item and warehouse was higher than the maximum allowed percentage or lower than the minimum allowed percentage entered in Replenishment Parameters File Maintenance.

Proper responses to this alert could include simply making a mental note that the limit was applied, checking the usage to determine whether a higher or lower trend % is actually warranted, etc.

Available Subscription values: Warehouse, Item

Re-raise interval defaults to 30 days