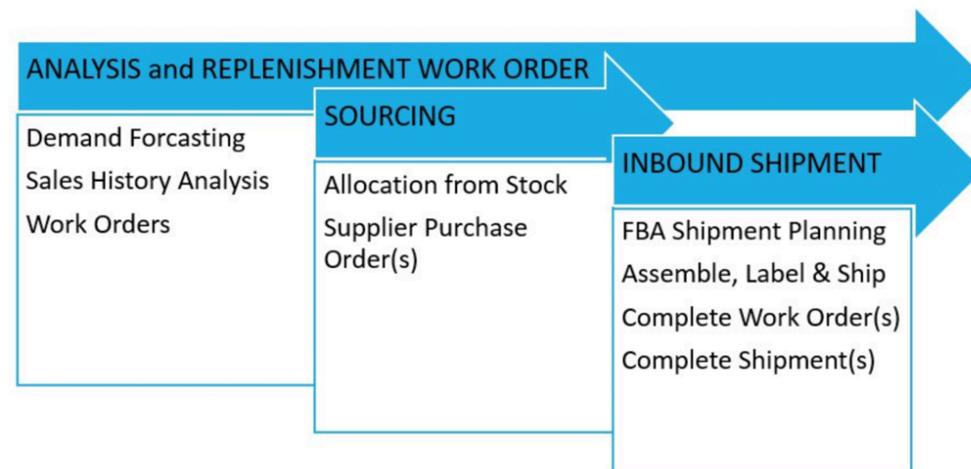


OMS: Replenishment Management (REPL)



- REPL01: Replenishment Planning Setting
- REPL02: Demand Profiles
- REPL03: Sales History Tracking
- REPL04: Replenishment Modes
- REPL05: Purchase Planning
- REPL06: Replenishment Planning Screens

The process and activities associated with determining the demand for base items and the correct replenishment time, including conversion to supplier purchase orders to restock the warehouse or send to Amazon for use on FBA sales orders.



EVP provides a one-stop-shop for managing and processing your replenishment activities. In EVP, merchants have the ability to:

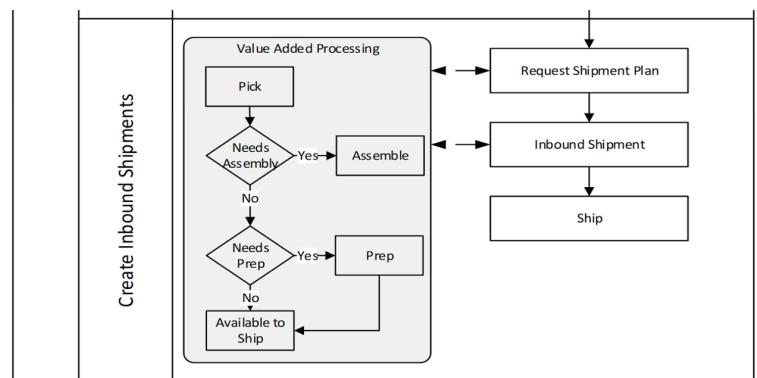
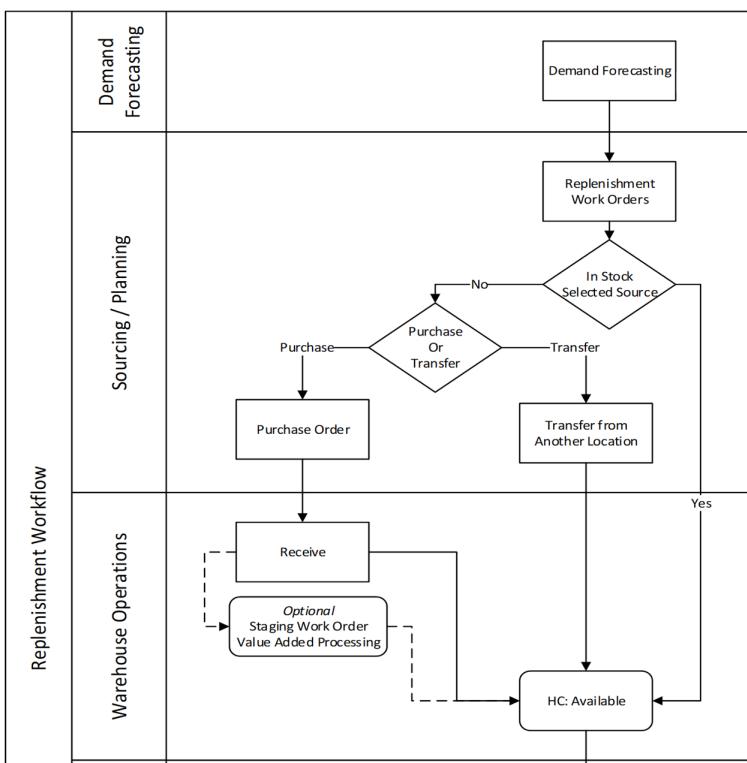
- Analyze and plan items for dynamic “Auto” or “Manual” (Min/Max) replenishment
- Create a Work Order to source inventory from stock and supplier Purchase Orders
 - This will then allocate that inventory from the specified location for those items and generate demand, which in turn makes them unavailable for sale on other sales channels.
 - Assign that work order to a fulfillment location
- Create and receive Cross-Dock POs for the Replenishment Work Order
- Plan FBA Shipments from the Work Order

- Manage the internal work order for that shipment, and
- Interactively download FBA shipments there are two main parts of the Replenishment Feature
 - Sales History (Sales Velocity)
 - Demand Profiles

These two ingredients are incorporated to create a formula for replenishment. Simply put, *Velocity x Demand Profile = Projected Demand*. EVP makes Replenishment Recommendation to avoid stock-outs based on the projected demand. EVP looks at the Sales History to determine the velocity of your top-selling items and then bounces that against the Demand Profile to predict your projected sales and required inventory amounts. EVP incorporates Sales Velocity data, planning and preparation criteria (i.e., latency, number of planning days, and minimum daily sales), and Demand Profiles to generate Purchase Planning recommendations of when and how much to reorder. Purchase Planning Recommendations generated overnight, so you literally wake up to having all this valuable analysis ready and waiting for you.

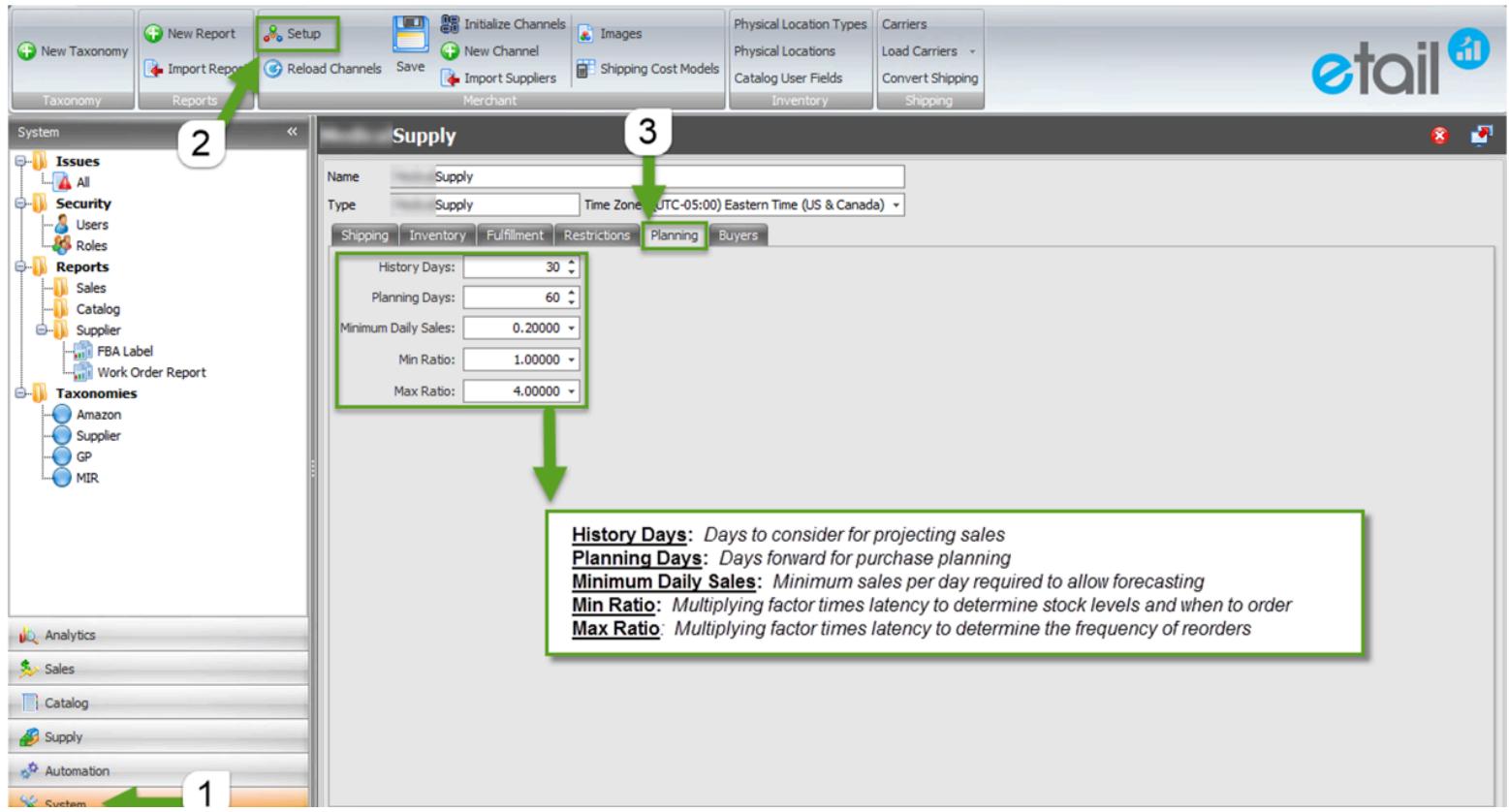
Core Replenishment Workflows

Optional FBA Inbound Shipment Processing



REPL01: Replenishment Planning Setting

Replenishment Planning Settings



History Days

- The default number of Sales History days to consider when projecting future sales
- The number of days the system looks back to determine what your sales volume is.

Note: It is important to consider that if you use a longer period of time, the system will take the average sales over that time frame to determine what to order now. This means you could potentially end up ordering a large quantity even if you are not selling right now because the system is averaging over the entire last year. For this reason, it is better to use a 30 or 60-day window

Planning Days

- The default number of days you want to plan “forward” for Purchase Planning
- This impacts the Projection Screen, allowing you to see all projected order events/sale events over this timeframe. This is *not* how many days you are ordering for, but only how far out you can visually see different ordering/planning activities.

Minimum Daily Sales

- Minimum sales per day required to allow forecasting

Min Ratio

- Used to calculate min stock level (safety stock) to determine when to order to avoid stock out
- Multiplies item latency by this factor to determine stock levels and when to order

Max Ratio

The Max Ratio is a factor for determining the number of days you want to cover in order to keep from running out of stock too quickly.

- Used to determine your ordering frequency and how much to order to replenish stock

- The closer this number is to 1, the tighter you run your inventory. So if you set the min ratio to be one, you would be saying that you want the inventory to arrive the day that you run out

Note: We recommend this number always be greater than 1 (but if they want to keep inventory tight, then use 1.1).

- Example: If you enter a Min Ratio of 1 for an item with a latency of 7 days, you are going to order enough stock to cover seven days. In this scenario, your inventory is going to be purchased in just enough time to cover selling out by the time your next shipment reaches you. One is typically the most aggressive. If you enter a Min Ratio of 1.5 (for item(s) with a latency of 7 days), you will receive 10.5 days of inventory.

- Min Ratio Calculation: *Average Daily Sales x Number of Days Safety Stock*

- The Min Ratio Calculation is used to determine the Inventory Level that you must reach before the system suggests that you reorder
- Average Daily Sales = Sales for Historical Period/Historical Period)
- Number of Days of Safety Stock = *Latency x Min Ratio*
- Min Ration Calculation (detailed)
- (*Sales for Historical Period/Historical*

- Multiplies item latency by the Max Ratio factor to determine the frequency of reorders
- Increasing this number will indicate a higher order quantity and lower order frequency
 - The default we recommend for your Max Ratio is 4.
- *Max Ratio x Latency* = Number of days to order.
- Multiplying “Max Ratio x Latency” by your Average Daily Sales is the Quantity you would be ordering to replenish stock.
- Max Ratio Calculation: *Number of Days to Order X Average Daily Sales* = Quantity to Order
 - Number of Days to Order = *Latency x Max Ratio*
 - Average Daily Sales = *Sales for Historical Period/Historical Period*

REPL02: Demand Profiles

Demand Profiles

Demand Profiles account for both year over year growth as well as a single point in time growth. Demand Profiles are determined based on what you have sold and how much your product will grow.

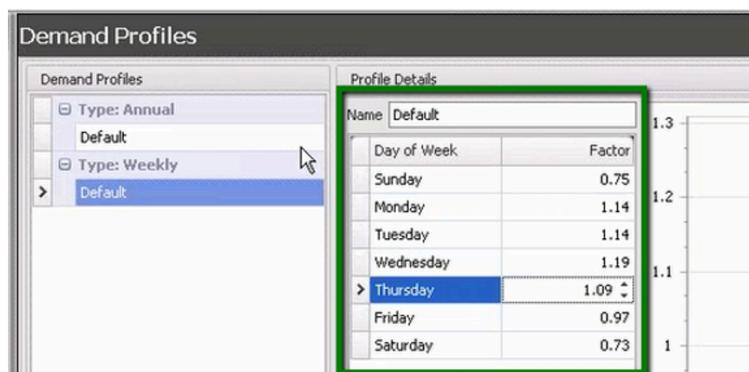
Demand Profiles are created by you, the Merchant, to further inform EVP of both your Annual Growth Curve and Seasonality of your products.

The EVP Replenishment feature is a powerful tool. It is important to note that the power of the tool lies in the accuracy of the estimates that go into creating the Demand Profiles. Continued business analysis and evaluation that informs strategic adjustments will increase the power of the tool to make recommendations that meet your product demand and business growth requirements. EVP Replenishment offers advanced capabilities to create customized planning Demand Profiles based on sales history trends, including:

- Create 30-day, 90-day, or 365-day planning Demand Profiles
- Evaluate Demand Profiles against sales history and adjust to mirror actual demand reality
- Examples of Demand Profile models are Seasonal trend items such as Holiday lighting, winter gear, sports calendar trends, recreational seasons, Q4 calendar trends, etc.

Demand profiles are made of a combination of Weekly Factors, Annual Events, and Model Items and impact both history calculation and future projection.

Weekly Factor – Daily Factors for a typical week are based on a deviation from a standard sales quantity of 1 unit. Less than one would mean sales of less than 1 unit sold while greater than one would mean more than 1 unit sold.

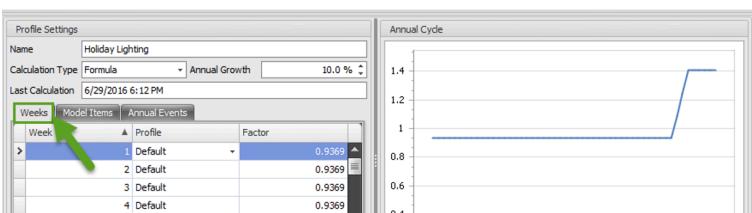


Annual Events – are set to identify the selling season starts, peak dates, and season end as well as a factor of increased sales projected during the peak based on previous sales history trends. Demand Profiles are built using either a Model or Formula Calculation Types:

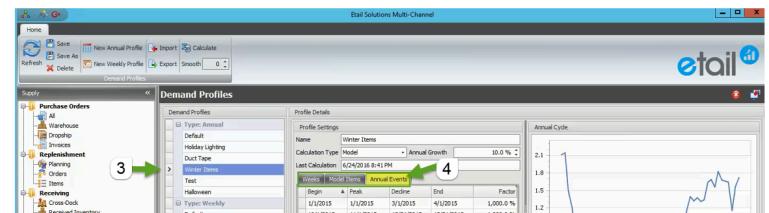
1. Model
 - a. Uses a sales listing that illustrates actual sales history trend
 - b. Ignores Annual Events.
2. Formula
 - a. Uses the Annual Events to mathematically calculate the annual demand
 - b. Indicate start of incline, peak, decline, and end dates
 - c. Ignores model items



Weekly Factors



Annual Events



REPL03: Sales History Tracking

Sales History Tracking

Sales Activity			
Last Sale	Units (Week)	Units (Month)	Units (Year)
11/18/2015	17	17	80
12/1/2015	30	119	1,881

Financial Details						
Demand	Sold	Purchased	Cost	Sales	Profit	Margin
846	846			9,077.58	848.94	9.35 %

Sales History

Last Sale	\$ Last Day	# Last Day	\$ Last 7	# Last 7	\$ Last 30	# Last 30	\$ Last Year	# Last Year
12/15/2015	0.00	0	1,824.21	214	5,419.41	517	10,166.20	961

Sales History provides your “Selling Velocity.” This tells you what you’ve sold in a given period of time. You can configure whether you want to look back 30 days, 90 days, or 365 days.

EVP tracks Sales History to record

- Actual Sales Activity for the previous day
- Sales market conditions for the day for each item
- Jobs run late at night to pull in this data into EVP where it is integrated and stored

Replenishment lives and breathes on the quality of sales history. EVP pulls actual sales history data, which is integrated and stored directly in EVP. There are two sales recording jobs that are set up to run for the EVP replenishment feature.

1. Record Daily Sales Status

- a. Flag Item to Track Status recording answers the question “What was the market like for this item on this day?” by capturing actual sales item-level data for the sales market conditions such as high and low price and the market price
- b. Record Listing Status pulls in item details on a daily basis for qualitative analysis, which allows for intelligent review against market dynamics, plus helps answer the question “Why did sales behave this way in a given time period?”

2. Record Daily Sales Activity captures your actual sales activity for the previous day, looks at any item that has sold in the past per the Sales History settings (i.e., 30 days), plus Any item sells EVP will automatically flag the sales channel record to track for planning purposes

REPL04: Replenishment Modes

eDC7.4 Replenishment Modes

- **Auto**

- Dynamic Replenishment in which the system leverages Sales History and the Demand Profile data to recommend replenishment planning quantities and schedules for these items.
- Auto Mode: the EVP system calculates the Minimum and Maximum inventory quantity numbers based on a variety of information such as sales history, "minimum factor," latency, sales velocity, and replenishment frequency.
 - The minimum is a function of how many days' worth of product you want to keep in stock. EVP uses a multiplier called a "minimum factor" to come up with the number of days' worth of product you want to keep stocked and then look at the projected sales for that item to determine the minimum quantity you want to keep stocked to avoid a "stockout." For example: If it takes seven days to get the item in stock and the sales velocity is two units per day, then I would want to keep at least 14 in stock.
 - Maximum quantity is a function of determining how often you want to purchase the product to replenish the item(s). The lower quantity you want to purchase, the more often you will need to purchase. Merchants vary from 1 week to 90 days on frequency. This is highly dependent on the lead time of how long it takes the items ordered to be delivered. As a result, EVP takes a factor of the lead time to determine how many days you want to purchase inventory for. If a merchant wants to purchase 28 days' worth of inventory, we pass that through the projected sales quantity for that number of days to come up with the quantity to purchase for replenishment.

- **Manual**

- Minimum Stock and Maximum Stock are values entered by Merchant. By default, we want the system to calculate these numbers for us. However, you may run into scenarios where you want to set a manual minimum and maximum.
 - For example, if you just supplied new products to FBA, the system will not have a valid Sales History to provide an accurate sales velocity. If you want to make an educated guess on how much you want to set for a minimum and maximum quantity, you will use the Min/Max setting.
 - Time Ranges: In addition to stock levels, we can also set manual Time Ranges in EVP replenishment planning. Time ranges are related to how far back into Sales History and how forward you want to look for strategic planning projections. Time ranges are based on two main components: 1) Number of History Days and 2) Number of Planning Days. Time Ranges can be set first at a “Global” level, next at a “Supplier” level, and finally (if desired) at an “Item” level. For example, a merchant may decide on Global settings for their entire catalog to do 90 days history and 30 days planning. The merchant might then wish to narrow parameters for a particular Supplier.

- **Mixed**

- Use case example: A merchant may wish to set their FBA listing to a Replenishment Mode of either Auto or Min/Max but decide to set the FBM listing to Off if they plan to stop selling the FBM listing.
- Because every listing carries its own Replenishment Mode, it is possible to have one listing set to Auto while another listing for the same EVP Master SKU might be set to Manual or Off. “Mixed” means there is some combination of Auto, Min/Max, and or Off

- **Off**

- Not being planned

Identifying items to turn on Replenishment would be a good weekly (or monthly) activity. Note, if you add new items to EVP will need to wait until sales begin to occur to turn on Replenishment.



REPL05: Purchase Planning

Purchase Planning

Purchase Planning runs after the Daily Sales Status, and Daily Sales Activity jobs are complete.

- Processes any items that have planning active and generates a model for estimating planning recommendations
- Runs once a day in an “off hours” window
- Generates a “best recommendation” for planning based on real-time Sales History, Sales Activity, and modifications made to the Demand Profiles

The Planning Recommendations can be seen on the Projections Tab of the Replenishment Planning Screen, which displays a view of:

- Sales History
 - Sales
 - Stock
 - Published Quantity
- Projections
 - Sales Estimated based on Sales History and Demand Profiles
 - Planning Events
 - Replenishment Events to leverage existing unallocated stock
 - Purchase PO Events with recommended order quantity
 - Subsequent future inventory replenishment amounts
 - Lost Sales Estimation due to stock-outs if not replenished

Replenishment			
Mode	Last Check	Latest Reo...	Stock Out
Auto	11/20/2015	12/21/2015	12/18/2015
Auto	11/20/2015	12/11/2015	12/22/2015

- Last Check: Indicates the last day the system evaluated this item to come up with a Min/Max,

Stock Dates		
Stock-Out	Reorder By	Reorder
12/19/2015	12/18/2015	205

- Stock-Out: The date the system expects this item to go out of stock if not reordered by the Reorder Date

Stock Out date, etc. This date should never be more than a day old as this job is run every night in the automation.

- Latest Reorder: The day the EVP system is saying you need to place an order (or replenish from Merchant owned stock locations) for this product to avoid a Stock Out. Note: Each EVP Sku has multiple listings (or Channel Records). What this field displays is the most urgent reorder date of all Channel Records/Listings for that EVP Sku.
- Stock-Out: The date the system estimates the merchant will run out of stock of this item if not reordered (or replenish from Merchant owned stock locations) by the recommended "Latest Reorder" date based on Sales History, projected future sales, and lead time required for supplier delivery of the purchased product.

- Reorder By: The date the item must be reordered (or replenish from Merchant owned stock locations) in order to avoid stock out (per the Stock Out date)
- Reorder: The number of items needed to be reordered (or replenish from Merchant owned stock locations) according to your replenishment settings in EVP

Reorder Logic is based on EVP Replenishment Planning, calculating an average sales per day number, and then looking back through sales history capturing the published quantity.

- EVP does not consider a day nothing was published in the average
- Any day there is stock, or there is a sale is included in the average
- Having stock for a long period but not selling would lower the average sales per day number
- "In stock" and "out of stock" will average down depending on the time cycle length of "in stock" and "out of stock."
- Amazon can receive a few pieces resulting in an item being "in stock" and "out of stock" on the same day
 - Planning level is only by the day (not more granular)

Navigation icons: Back, Forward, Home, Search, etc.

REPL06: Replenishment Planning Screens

This screenshot shows the top navigation bar of the Purchase Planning by Item application. It includes buttons for Save View, Save View As, Delete View, Export Data From Current View, Select All, Clear All, Max 50, Planning Mode, Order Mode, Update Items, Calculate, Preferences, Add to Order List, and Create Work Order.

Purchase Planning by Item

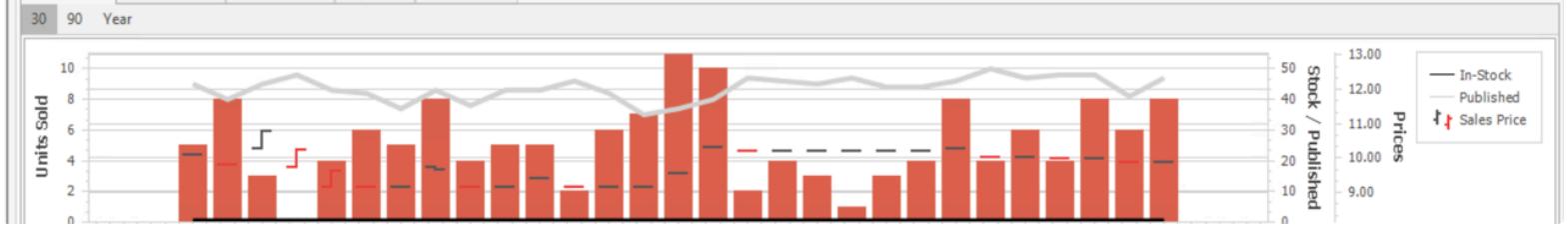
Exact Phrase Contains Advanced Show/Hide Columns

Sku		Sales Activity										Replenishment			Stock	
Master SKU	Order	Last Sale	Sales (Day)	Units (D... ▾)	Sales (Week)	Units (Week)	Sales (Month)	Units (Month)	Sales (Year)	Units (Year)	Mode	Last Check	Latest Re	Supplier	In Stock	
SBD N008792	✓	9/28/2020	\$303.40	15	\$1,367.20	67	\$3,906.90	191	\$28,076.29	1,343	Auto	9/28/2020	9/29	1,000	11	
SBD N126162	✓	9/28/2020	\$153.32	12	\$649.35	51	\$3,899.21	315	\$15,336.23	1,222	Auto	9/28/2020	9/29	1,000	4	
SBD 90592363-01	✓	9/28/2020	\$161.92	11	\$1,043.31	72	\$3,672.81	251	\$43,299.20	2,621	Auto	9/28/2020	9/29	1,000	-29	
ROT 15019	✓	9/27/2020	\$79.04	8	\$450.06	45	\$1,540.12	158	\$14,955.07	1,467	Auto	9/28/2020	9/29	55	7	
SBD N413423	✓	9/28/2020	\$102.27	7	\$888.24	61	\$3,247.72	225	\$14,999.24	1,034	Auto	9/28/2020	9/29	1,000	15	
GAR 964-04117B	✓	9/27/2020	\$259.98	6	\$882.20	20	\$1,433.36	32	\$4,155.17	93	Mixed	9/28/2020	9/29	56	3	

Supplier (auto) Demand Profile Select All Show All

Listing			Settings						Calculation			Financial D Stock Dates			
Channel SKU	Channel	UOM	Mode	Model	Min	Max	History	Planning	Last Calc	Planning Status	Demand	Stock-Out	Reorder By	Quantity	Type
ROT 15019	Amazon_US	EACH	Auto	<input type="checkbox"/>	25	103	60	90	9/28/2020	Completed	45	9/28/2020	9/29/2020	103	Purchase
ROT 15019	Walmart	EACH	Auto	<input type="checkbox"/>		60	90	9/28/2020	No Sales	<input type="checkbox"/>				None	
ROT 15019	eBay	EACH	Auto	<input type="checkbox"/>	1	?	60	90	9/28/2020	Low Sales	<input type="checkbox"/>			None	

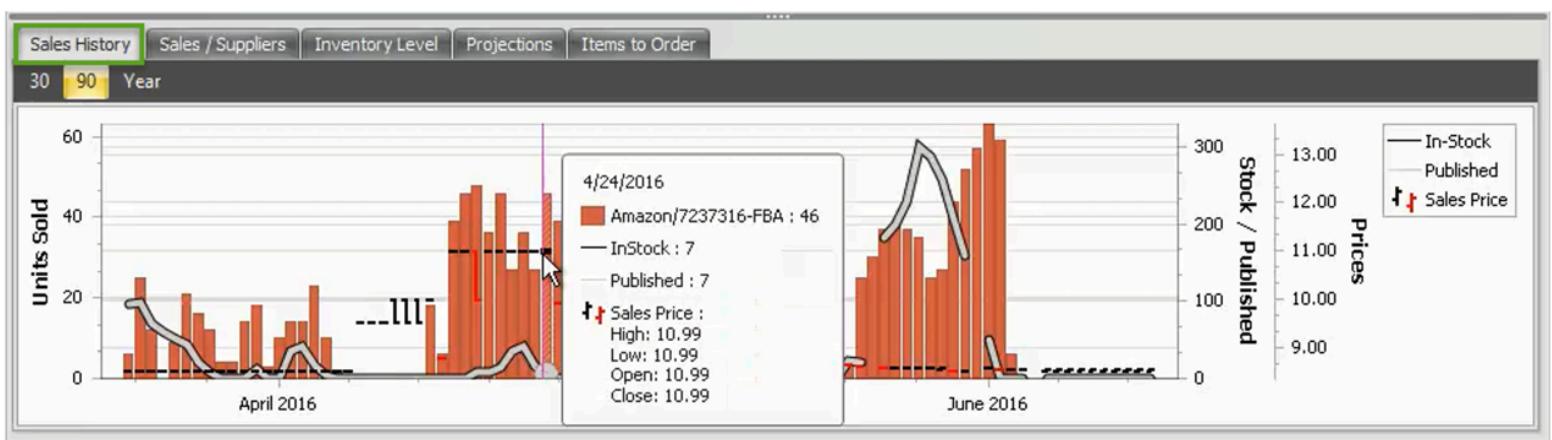
Sales History Sales / Suppliers Inventory Level Projections Items to Order



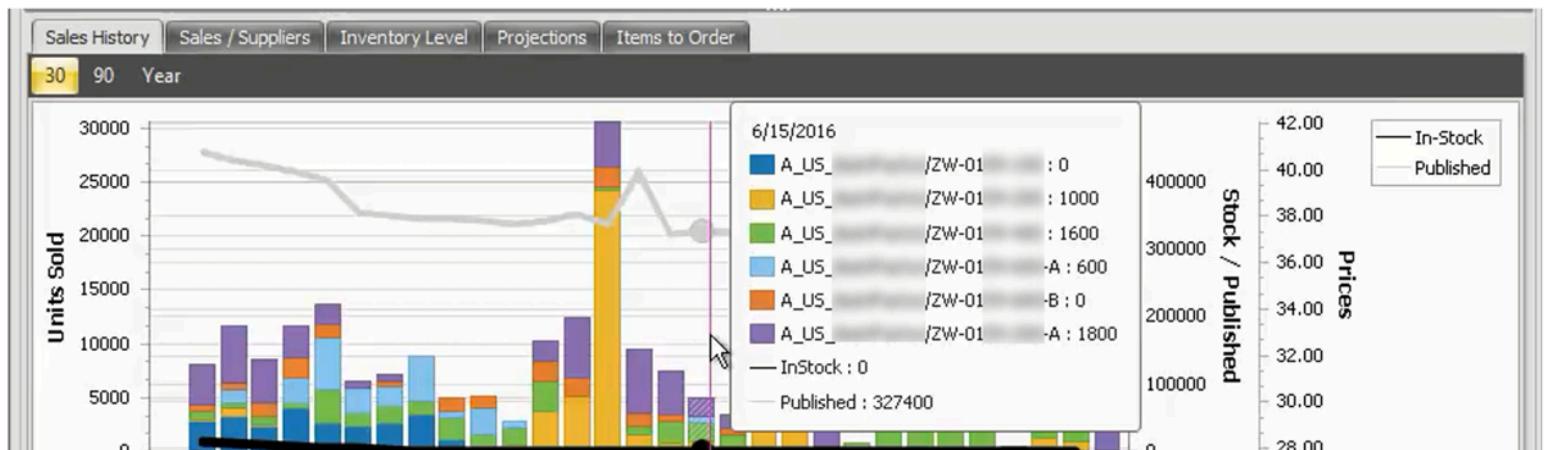
Sales History Tab

The Sales History tab provides a snapshot of units sold at the EVP Master SKU level for an indicated time period. The default opens to 30 days. Click “90” day or “Year” to change the time span for the view.

Single Sales Listing View:



Multiple Sales Listing View:



Sales/Suppliers Tab

The Sales/Suppliers tab provides the detail very similar to what you see on the Catalog screen. Indicates ALL Sales Channel Records (Listings) associated with the Master SKU highlighted in the section above and which Suppliers the item can be purchased from.

The screenshot shows the Sales / Suppliers tab with two tables of data:

Sales

Channel	Sku	UOM	Qty	Status	Availability	Publication	Review	Sale Price	Unit
Amazon	7237316-FBA	EA	1	Existing	Actual	PriceAvailability	Verified	\$8.50	USD
Amazon	7237316	EA	1	Existing	Unavailable	PriceAvailability	Rejected	\$8.62	USD
Amazon	ACME-7237316	PACK_3	3	Existing	Actual	PriceAvailability	Verified	\$19.53	USD
Amazon	ACME-7237316-1	PACK_10	10	Existing	Actual	PriceAvailability	Verified	\$63.60	USD

Supplier

Channel	Sku	UOM	Qty	Latency	Quantity	Date	Cost	Unit
Acme	7237316	EA	1	5	6,793	6/5/2016 1:46 PM	\$2.72	USD
Amazon Fulfillment	7237316-FBA	EA	1	0	0	6/16/2016 12:32 PM	\$2.71	USD
Dynamics GP	ACME-7237316	EA	1	0	0	6/16/2016 12:32 PM	\$2.71	USD
Final	ACME-7237316	EA	1	0	0	6/16/2016 12:32 PM	\$2.71	USD

Inventory Levels Tab

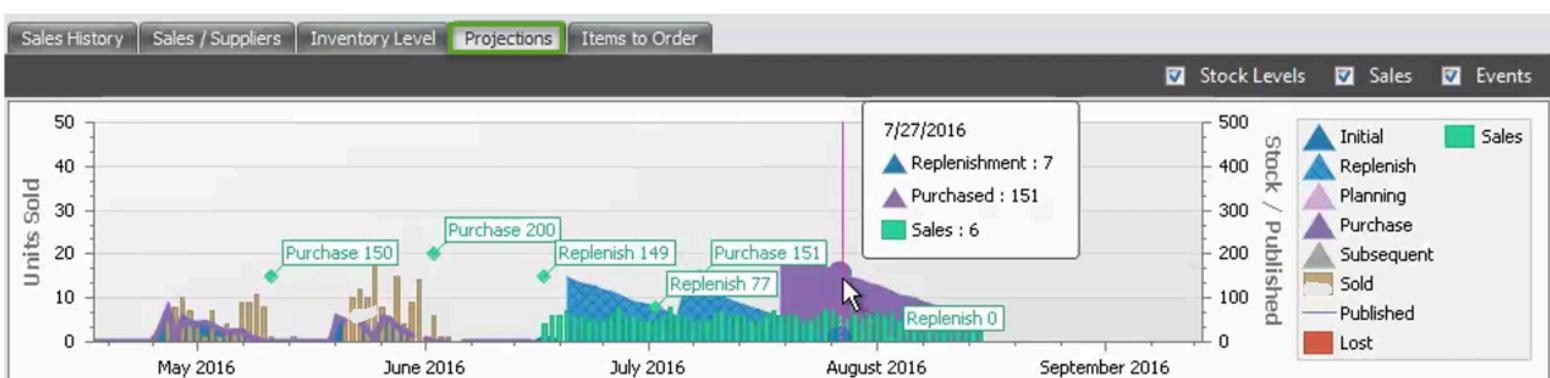
The Inventory Levels tab shows all transactional inventory Quantities. This shows your Stock location inventory as well as FBA locations of FBA Staging (located in your warehouse being prepped for shipment to FBA), FBA Transit (in route via inbound shipment to FBA), FBA Unsellable, and FBA Stock.

Sales History	Sales / Suppliers	Inventory Level	Projections	Items to Order
Update Allocation		Update Demand		
Stock	Location Name	Date	Quantity	Latency
	Group: FBA			
	FBA Staging	6/2/2016 7:04 PM	362	0
	FBA Transit	5/27/2016 11:47 AM	-1	0
	FBA Unknown	1/8/2016 6:19 PM	0	0
	FBA Unsellable	5/10/2016 1:04 PM	13	0
	FBA US Stock	6/5/2016 12:17 PM	-28	0
	Group: Warehouse			
	Drop Ship	4/28/2016 5:59 PM	0	0
Supply	Location Name	Date	Quantity	Latency
	Channel Name: Acme			
	Default	6/5/2016 9:56 AM	2,498.00	5
	RSC AL	6/5/2016 1:46 PM	962.00	5
	RSC IL	6/5/2016 1:46 PM	1,332.00	5

Projections Tab

The Projections tab provides useful information for current actual Sale quantities (indicated by the brown bars on the left) and projected sales quantities (indicated by the green bars on the right). Projections are shown at the individual listing level. The “Dots” on the graph indicate “Events” such as Purchasing of inventory from suppliers or Replenishing from existing stock-based on EVP projections of sales history and available stock. The color key on the right indicates what type of event these are, such as an Initial, Replenishment, or Purchasing Event.

- Initial: Last Replenishment Event for current stock
- Replenish: Replenish from existing stock
- Planning: Future stock requiring planning actions
- Purchase: Replenish from purchase order to supplier(s)
- Subsequent: Future replenishment planning events
- Sold: Items sold prior to present day
- Published: Quantity published
- Lost: Sales lost due to a stock out or a projected stock out if stock is not replenished



The Projections Tab can be used to:

- View all items by projected stock out date to avoid lost sales due to selling out
 - Measure the recommended purchase against current data to avoid the purchase of low demand or seasonal inventory
 - Evaluate and modify your demand profiles to mirror actual sales trends for continuous optimization of the system's planning recommendations.
 - The system auto-adjusts purchase recommendations based on actual sales, which is downloaded nightly
 - Create a Work Order to identity sourcing of inventory from existing unallocated stock (including unallocated stock on inbound Purchase Orders)

Items to Order Tab

The Items to Order tab displays items you have added to create a Work Order in order to replenish via existing stock or Cross-Dock Purchase Order(s) to replenish from one or more supplier channels.

Work Order Creation

When requested, EVP will create your Work Order as well as automatically recalculate your Replenishment Planning to ensure that these items no longer appear in the Replenishment List as needing to be ordered.

EVP will consider unallocated stock at your own warehouse locations if you have identified these as replenishment sourcing locations in your settings. The remaining items required to complete the work order would need to be sourced through your available supplier locations. The next step is the Purchase Order generation.



Purchase Planning by Item

Sku		Sales Activity				Replenishment		Stock	
Order	Sku	Last Sale	Units (Week)	Units (Month)	Units (Year)	Mode	Last Check	Supplier	In Stock
<input checked="" type="checkbox"/>	0313-0001	10/11/2015 8:05 PM	6	6	228	Auto	6/1/2016	0	24
<input checked="" type="checkbox"/>	0119-0003	10/6/2015 3:12 PM	0	132	774	Auto	6/1/2016	0	-450
> <input checked="" type="checkbox"/>	0074-0002	4/19/2015 9:48 AM	13	163	165	Auto	6/1/2016	0	-161
<input checked="" type="checkbox"/>	0064-0003	4/19/2015 5:22 AM	124	231	321	Auto	6/1/2016	0	-82

Record 3 of 7

Supplier (auto) Demand Profile Select All Show All

Listing			Settings						Stock Dates			
	Channel SKU	Channel	UOM	Mode	Model	Min	Max	History	Planning	Stock-Out	Reorder By	Reorder
>	WILD-0473-6PK-1FBA	Amazon	PK_6	Auto		66	294	30	60	6/12/2016	6/2/2016	289

1 Review "Items to Order" list and quantities

Sales History Sales / Suppliers Inventory Level Projections Items to Order Remove Remove All

Thumbnail	Sku	Title	UOM Qty	Margin	UOM	Quantity	Total Inv...	Profit
	ID		Stock-Out	Reorder	Sales Rank	30 Day #	30 Day \$	

your own warehouse locations if you have identified these as replenishment sourcing locations in your settings. The remaining items required to complete the work order would need to be sourced through your available supplier locations. The next step is the Purchase Order generation.

