6.2. Configuring Replenishment Parameters

In this article we describe:

- Streamline's replenishment parameters, their requirements, and defaults; and
- the possible ways to set up those parameters in Streamline.

Replenishment Parameters

Replenishment parameters are the controls that affect a replenishment plan calculated by Streamline. In other words, they are the inputs of the replenishment plan calculation process. Streamline's replenishment parameters can be divided into three categories:

- Basic parameters. This set of parameters are peculiar to every business and should be always adjusted before planning your inventory.
- Open orders information. Presence of these data depends on the current status of your sales, purchase, transfer, and manufacturing orders. This information describes lines in your open orders the orders that are being currently delivered, shipped, and manufactured. We **strongly recommend** that you provide Streamline with this information if it is available.
- Constraints. These are optional parameters. They allow accounting for ordering constraints such as product shelf-life, minimal or maximal lot size, rounding, and others.

A description, requirements, and default values for the replenishment parameters are given in the table below.

Parameter	Description	Given in	Format	Default value
	Basic parameters	5	2	
Horizon	The number of future periods for which you want to build an ordering plan.	Data aggregation periods	Integer	12
Replenishment strategy	The method that drives the replenishment process. There are two options, Min/max strategy and Periodic strategy.			Periodic strategy
Safety stock periods	ifety stock The number of future periods which		Integer or fractional number (example: 1.5)	1.0

Parameter	Description	Given in	Format	Default value
Service level	The percentage of time (in the long run) that the item is in stock.	Percentage		98%
Lead time	It refers to either the supplier lead time; or the lead time from the DC to the location, depending on the echelon the planning item resides at.	Days		30
Order cycle	If the planning item is sourced from a supplier, this is the frequency your order from this supplier; if it is sourced from a DC, it is the frequency you replenish from the DC.	Data aggregation periods, days, or the Lead times.	Integer	1 data aggregation period
On hand	The quantity of an item that is currently in stock			0
	Open orders informa	tion	!	1
Qty to receive	The amount of the item to be received based on an open order line. That can be manufacturing, transfer, or purchase order.		Integer	0
Delivery date	The expected delivery/build date of the item. It is attached to the corresponding open order line.		Date format	The beginning of the first forecasted period
Qty to ship	The amount of the item to be shipped based on an open sales order line.		Integer	0
Shipment date	The date, the corresponding sales order line should be shipped to the customer.		Date format	The beginning of the first forecasted period
	Constraints			
Min lot	The minimum quantity that you can order from the supplier or DC. The item source – supplier or DC – depends on the echelon the item resides at.			0
Max lot	The maximum quantity that you can order from the supplier or DC.		Integer	0
Rounding	The rounding constraint on the ordered quantity. It allows Streamline to take into account how many items come packed in a carton.		integer	0
Display qty	The minimum number of units a shelf to display. This parameter typically arises in the retail business.			0
Ordering availability	This parameter allows you to define the particular future periods in which Streamline can generate <i>purchase</i> <i>orders</i> . By default this option is disabled, meaning that all future periods are available for placing purchase orders.		Boolean	true

Parameter	arameter Description		Format	Default value
Shelf life	The desired time the item can be in stock.	Data aggregation periods	Integer	∞
Shelf life exceeding	The average percentage of the item replenished quantity that may be discarded.	Percentage	Integer	5% if the Shelf life is given.

Zero value for the *Constraints* means that there are no constraints.

Date formats

If you import data from Excel files (XLS, XLSX), Streamline understands any date that is formatted by Excel standards. For text files like CSV, the date should be in one of the following formats:

- dd.mm.yy
- m/d/yy
- mm/dd/yyyy
- yyyy/mm/dd
- yyyy-mm-dd
- yyyy_mm_dd
- yyyymmdd

Streamline also recognizes these formats in Excel files.

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Replenishment Parameters Configuration Methods

There are several ways to set up replenishment parameters in Streamline. Each of them differs in the spectrum of parameters it is able to set up, and the level of details these parameters are set at.

The table below shows the available methods and the level of detail the modification happens.

Method	Level of detail		
	Changes are applied to all of your planning items at once. It means that you can't set up different values for two planning items.		
Importing from the data source			
Editing in the inventory reports	You can set each parameter on an item basis. Bulk changes a supported.		
Importing from Excel			

The table below shows the replenishment parameters each method can modify.

Modifying	Importing from	Editing in	Importing from					
defaults	data source	report	Excel					
Basic parameters								

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	Modifying defaults	Importing from data source	Editing in report	Importing from Excel
Replenishment strategy	~			
Safety stock periods	~	 ✓ 	~	 Image: A set of the set of the
Service level	~	 ✓ 	×	✓
Lead time Order cycle	~	~	~	~
On hand		 ✓ 		 Image: A set of the set of the
·	Open	orders information		
Qty to receive		~	* 1	✓1
Delivery date		~		Y
Qty to ship		~		Y
Shipment date		 Image: A second s		
		Constraints		
Min lot Max lot Rounding Display qty		~	~	~
Shelf life		 ✓ 	~	✓
Shelf life exceeding	~		~	✓

¹Unlike *Importing from the data source, Editing in the inventory report* and *Importing from Excel* do not allow you to set **Qty to receive** and **Qty to ship** for each order individually. They set these parameters as total quantities on all of the corresponding open orders. For example, you have two open purchase orders with quantities to receive of **10** and **20** units correspondingly. Then, you should set the **Qty to receive** as **30** units.

However, if the **Delivery date** is given in the *Importing from Excel* method, Streamline treats that as if the given **Qty to receive** will be delivered on that date. In other words, **Qty to receive** now refers to one order only, not to a total quantity on a set of orders.

Planning horizon is set up using the **Horizon** control that resides in the **Toolbar** of the Demand forecasting tab.

There is a minimal limitation on the **Horizon** parameter when you are planning your inventory. The **Horizon** should be at least as long as the longest **Lead time** and **Order cycle** combination. For example, if the longest **Lead time** is **2** months and the longest **Order cycle** is **3** months, then the **Horizon** should be at least **5** months.

The **Ordering availability** constraint is **configured** using the program **Setting** and options on the **Demand forecasting** tab.

On hand level can be also edited right in Streamline.

As an option, you can override the calculated **Safety stock** by *Editing it in the inventory report* or *Importing from Excel*. In these cases, the updated parameters are used as inputs to compute Streamline's ordering plan.

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However, not all of the parameters shown in the second column of the table can be modified by *Importing from the data source*. The parameters set depends on the data connection that was used to create the project. The table above shows the capabilities for the Database connection and Transactional spreadsheet connection. To find out the capabilities for:

- Aggregated spreadsheet connection, go to the Data type section; or
- any of the 3rd party built-in connections, go to the Inventory Management Systems article.

When to Use Each Method

The first three methods are designed for standard situations:

- If you need to change a parameter for the most (or even all) of your items, amend defaults using the first method.
- Importing from the data source allows you automatically update defaults using the parameters set in your ERP system or other data source that is connected to Streamline.
- Editing in the inventory report is a standard and the most commonly used way for editing replenishment parameters right in Streamline. On one hand, it allows modification on an item basis. On the other hand, bulk changes are also supported.

The last one – Importing from Excel – is an additional way for configuring replenishment parameters. This method can be considered as an alternative to *Editing in the inventory report*. It is handy in the following situations:

- your ERP or data source doesn't have an ability to provide replenishment parameters, however, you can automatically/manually create an Excel file containing them;
- you have several data sources so that replenishment parameters can only be imported separately from the main data.
- you find it more comfortable to define parameters in an Excel file, and then load it into Streamline.

Settings Priority

There is a priority sequence of how Streamline applies given parameter values across the four methods mentioned above. The priority sequence (beginning from the least priority) is the following:

1. Streamline defaults have the lowest priority. The first method sets these. Defaults are shown in gray in the inventory report (see figure below).

2. Parameters imported or reimported (when you update the project) from your data source replace defaults. That happens when you use the *Importing from the data source* method. These replacements are displayed in black in the inventory report (see figure below).

3. Changes made in the inventory report or imported from an Excel file are *overrides* that have the highest priority. They are depicted in blue in Streamline (see figure below).

To ship	To receive	Lead time, days	Order cycle, months	Service level
0	0	60	1	98%
0	 Def 	aults	1	98%
0	0	30	1	98%
0	0	30	2	98%
• D)ata so	ource	2	98%
0	0	90	2	98%
0	0	30	2	98%
0	0	30	3	98%
0	Over	rides	3	98%
0	0	30	3	98%
0	0	30	3	98%

Modifying Defaults Using Program Settings

This method resets the defaults for all your planning items at once.

Let's go to the menu **File** > **Settings** > **Inventory** tab (see figure below).

Settings			×
General Project ABC analysis	Inventory	Distribution cente	r Das
Default lead time 30 + days Default <u>o</u> rder cycle 1 + months	~ * %	Distribution cente	
Safety stock			
Maximum of			
Service level 98.0 🗣 % (2.05·σ·			
Demand of the future 1.0 🚖 r	nonths		
Show columns Lead time Order cycle Min. lot Max. lot Rounding Safety stock settings Display qty Safety stock debt Shelf life Purchase price Actual sales for 0 periods	Note Net ord Excess Next of Deman	arn index der order	ption
Replenishment strategy Periodic <u>Min/Max</u>	Sho <u>w</u> e	entire ordering plan	
		OK	Cancel

This tab contains replenishment defaults for all your locations, except for the distribution centers (DCs).

- **Default lead time** sets the default period of time to deliver a product from supplier to location, or from DC to location. Planning item can be supplied either from a supplier or DC.
- **Default order cycle** sets the default frequency you send replenishment orders to supplier or DC. Planning item can be replenished either from a supplier or DC.
- **Default average shelf-life exceeding** sets default percentage of the replenished amount that might have to be discarded because of **Shelf-life** constraint.
- Service level sets the default service level for the planning items that a sold in your locations.
- **Demand of the future periods** sets the default number of future periods wich demand is used as the safety stock.
- Periodic and Min/Max option set the periodic or min/max method to be used to replenish

items in your locations.

In case, your supply chain includes DCs, the **Distribution center** tab is used to set up the defaults for them (see figure below).

Settings ×
General Project ABC analysis Inventory Distribution center Dat
Enable
Location east V
Transit location (doesn't store inventory)
Default lead time 30 🖨 days
Default average shelf life exceeding 5 🐳 %
Safety stock
Maximum of Service level 98.0 🗣 %
Show columns
Lead time Gross margin
✓ Order cycle □ Turn-earn index □ Min. lot □ Note
Max. lot Net order
Rounding Excess order
Safety stock settings 🗹 Next order date
Display qty Demand forecast
Safety stock debt Include material consumption Shelf life Projected inventory levels
Purchase price
Replenishment strategy
Periodic Show entire ordering plan
O Min/Max
OK Cancel

- **Default lead time** sets the default period of time to deliver a product from supplier to DC.
- Default order cycle sets the default frequency you replenish item from the supplier to DC.
- **Default average shelf-life exceeding** sets default percentage of the replenished amount that might have to be discarded because of **DC shelf-life** constraint.
- Service level sets the default DC service level for the planning items that are sold in your DCs.
- **Demand of future periods** sets the default number of future periods wich demand is used as the DC safety stock.

• **Periodic** and **Min/Max** options set the *periodic* or *min/max* method to be used to replenish items in DCs.

Importing From the Data Source

Consider an example. Our data source in the example is an Excel file having aggregated sales history (see figure below).

Replenishment parameters							Sales history by periods			
А	В	С	D	E	F	G	Н	- I		
Category	Item code	On hand	To receive	Lead time,	Order cycle,	2014-01	2014-02	2014-03		
Concrete_Block	C1020	10	0	60	2	55	54	63		
Fence	F1020	208	0	30	2	24	25	28		
Handles	H1010	30	0	30	2	22	11	11		
Handles	H1020	30	0	30	2	217	211	267		
Hinges	H2010	35	50	90	2	233	228	297		
Hinges	H2020	20	0	90	2	233	228	297		

As you see here, the file contains the following replenishment parameters as **On hand**, **Qty to receive**, **Lead time**, **Order cycle**.

Now, we will use the Aggregated spreadsheet connection to create a new project based on this data source. To do this, we go to the menu **File** > **New** > **Spreadsheet connection** > **Aggregated data** and set the proper meaning for our spreadsheet columns (see figure below).

CSV delimiter	Sales and propert	ties Stock on har	nd history Reve	enue history Or	ders to receive			
Compose date from None	Category	ltem code	On hand	Qty to receive	Lead time, days	Order cycle, months	2014-01	l
	Item category -	ltem code 🛛 👻	On hand	Qty to receive	Lead time 🔍	~]	
	Concrete_Block	C1020	10	0	60	ltem code	55	
	Fence	F1020	208	0	30	Item description	24	
	Handles	H1010	30	0 30	30 Item category 2	Item category 2 Location	22	
	Handles	H1020	30	0	30	Location category	217	
	Hinges	H2010	35	50	90	Channel Sales price/unit	233	
	Hinges	H2020	20	0	90	Purchase price/unit Inventory value/unit	233	_
	Nails	H2510	80	0	30	Inventory value	129	
	Nails	H2520	0	0	30	On hand Qty to ship	95	
	Screws	H2810	20	0	30	Oty to receive	14	
	Lumber (launch a	L2010	50	10	30	Delivery date In transition cost	11	
	Lumber (launch a	L2020	5	0	60	Lead time Lead time variance	38	
	Lumber (launch a	L2030	73	0	60	Order cycle	6	
	Lumber (launch a	L2101	61	0	60	Rounding Min lot	22	
	Lumber (launch a	L2102	52	0	30	Max lot	31	
	Lumber (launch a	L2140 (New prod	84	0	30	Shelf life, periods Supplier code		
OK Save Cancel	2	112020	200	•	20	Info field	nr	

Finally, we click **OK** to start the import process and create the project.

Now, let's go to the **Inventory planning** tab to see the imported replenishment parameters (see figure below).

^ Item code	Model type	On hand	Days of supply	To ship	To receive	Lead time, days	Order cycle, months	Min lot	Service level	Safety stock
C1020	Seasonal	10	4	0	0	60	2	0	98%	4
F1020	Seasonal	208	208	0	0	30	2	0	98%	4
H1010	Seasonal	30	43	0	0	30	2	0	98%	1
H1020	Seasonal	30	4	0	0	30	2	0	98%	15
H2010	Seasonal	35	4	0	50	90	2	0	98%	19
H2020	Seasonal	20	2	0	0	90	2	0	98%	19
H2510	Seasonal	80	15	0	0	30	2	0	98%	9
H2520	Seasonal	0	0	0	0	30	1	0	98%	4
H2810	Seasonal	20	34	0	0	30	1	0	98%	2

Now, let's demonstrate how Streamline automatically synchronizes replenishment parameters that were changed in the data source.

To illustrate this, we open our Excel file and change, for instance, **Lead time** for item **C1020** (see figure below).

	А	В	С	D	E
1	Category	Item code	On hand	Qty to receive	Lead time,
2	Concrete_Block	C1020	10	0	45
3	Fence	F1020	208	0	30

Then, we saved the Excel file and clicked the **Update data** button in Streamline. As you see from the figure below, the lead time has been updated.

Category	ltem code	Model type	On hand	Days of supply	To ship	To receive	Lead time, days	Order cycle, months
Concrete_Block	C1020	Seasonal	10	4	0	0	45	2
Fence	F1020	Seasonal	208	208	0	0	30	2
Handles	H1010	Seasonal	30	43	0	0	30	2
Handles	H1020	Seasonal	30	4	0	0	30	2

Any Streamline project stores a link to the data source. This link is used to synchronize the project with the data source when you click the **Update data** button.

Editing in the Inventory Reports

Streamline has three main tabs which are designed to plan your inventory. These are **Inventory planning**, **Intersite optimization**, and **Distribution center**. Each of these tabs may contain a set of custom reports displaying a slice of your inventory. We use term *inventory report* to refer to any of these reports.

Modifying replenishment parameters using inventory reports is the easiest and the most commonly used way to adjust and fine-tune the replenishment process before getting the ordering plans.

There is a default report called **All items** located under each of the mentioned tabs. It displays all the available inventory. Let's open the **Inventory Planning by Month** built-in example and proceed to the **Inventory planning** tab (see figure below).

🗊 Start 7 New fil:		and forecasting s	V 1000	entory planning	🖽 Rej		Dashboard						
Search		🔍 🎇 Se	ettings 🛄	In transition de	tails 📓	Export table	🕶 🎥 Exp	port paramet	ers 🦉 Imp	oort parameters	s 🔻 🛒 P	Planned ord	ers Overall pu
lte	em code	Description	Supplier	Model type	On hand	Days of supply	To ship	To receive	Lead time, days	Order cycle, months	Service level	Safety stock	Purchase price
89654	4-T	Toaster [co	3850	Constant le	41	46	0	0	30	1	98%	16	248.99
VR215	56 200	Vital Reds 2	1012	Linear trend	590	50	0	0	30	1	98%	27	16.74
VB216	66 150	Vital Blue 1	1012	Linear trend	54	38	0	0	30	1	98%	14	0
L2010	0	Lumber [se	3850	Seasonal &	54	130	0	0	30	1	98%	2	0.99
H2510	0	Nails [seaso	3850	Seasonal &	69	11	0	0	30	1	98%	13	0.1
C1020	0	Concrete bl	3850	Seasonal &	15	35	0	0	30	1	98%	1	4.09
B0546	65-R	Basketball 2	3850	Seasonal &	266	52	0	0	30	1	98%	11	13.69
56540	05 Beatles	One Style X	4008	Seasonal &	1456	224	0	100	30	1	98%	47	9.29
56540	05 Beatles S	One Style S	4008	Seasonal &	1181	386	0	100	30	1	98%	39	9.29
0 56540	05 Beatles	One Style	4008	Seasonal &	811	266	0	300	30	1	98%	79	9.29

As you see, the report contains columns such as **On hand**, **To ship**, **To receive**, **Lead time**, and others. These replenishment parameters refer to your locations that *are not* distribution centers (DCs). Replenishment parameters for DCs are on the **Distribution center** tab. This example doesn't contain DCs, thus, **Distribution center** tab is hidden.

By default, inventory reports show columns for only those replenishment parameters that were imported from your data source. However, you can include all the available parameter by changing the display settings of the report. To do this:

- 1. Click the **Setting** button on the report's toolbar.
- 2. Select the parameters you want to add into the report by checking the corresponding options in the **Show columns** section (see figure below).

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Settings >	<
General Project ABC analysis Inventory Distribution center Dat	}
Default lead time 30 🖨 days	
Default order cycle 1 🜩 months 🗸	
Default average shelf life exceeding 5 🚔 %	
Safety stock	
Maximum of	
∑ Service level 98.0 🗣 % (2.05°σ°√cycle)	
Demand of the future 1.0 + months	
Show columns	
Lead time Gross margin	
☑ Order cycle	
Min. lot	
Max. lot Net order	
□ Rounding □ Excess order ✓ Safety stock settings ✓ Next order date	
 ✓ Safety stock settings ✓ Next order date ✓ Display qty ✓ Demand forecast 	
Safety stock debt	
Shelf life Projected inventory levels	
✓ Purchase price	
Actual sales for 0 🜩 periods	
Replenishment strategy	
Periodic Show entire ordering plan	
O Min/Max	
OK Cancel	1
	1

This example has the **Min lot** parameter given. Let's show it by checking the **Min. lot** option. The result is shown in the figure below.

7	New filter All	items												
2	arch	0	🎡 Settings 🛛 🌉	In transition	details 📓	Export ta	ble 🔻 🏠	xport param	eters 🏴 Imp	oort parame	eters 🔻 🎙	Planned	orders Overa	l purchase
	Industry	Group	ltem code	On hand	Days of supply	To ship	To receive	Lead time, days	Order cycle, months	Min lot	Service level	Safety stock	Purchase price	Qty
	Consumer	Electronics	89654-T	41	46	0	0	30	1		98%	16	248.99	29
	Pharmacies	Pharmacies	VR2156 200	590	50	0	0	30	1	1000	98%	27	16.74	1000
	Pharmacies	Pharmacies	VB2166 150	54	38	0	0	30	1	100	98%	14	0	100
	Consumer	Building	L2010	54	130	0	0	30	1		98%	2	0.99	0
	Consumer	Building	H2510	69	11	0	0	30	1	1000	98%	13	0.1	1000
	Consumer	Building	C1020	15	35	0	0	30	1		98%	1	4.09	11
	Consumer	Sporting	B05465-R	266	52	0	0	30	1	60	98%	11	13.69	60
	Fashion	T-Shirts	565405 Beatles	1456	224	0	100	30	1	100	98%	47	9.29	0

Yellow background in the report header indicates editable columns.

To edit a replenishment parameter in any inventory report:

- 1. Double click on the cell you want to edit.
- 2. Enter the new value.
- 3. Press Enter to apply the change.

In our example, we have changed the **Min lot** from **1000** to **100** for item **VR2156 200** (see figure below).

ltem code	On hand	Days of supply	To ship	To receive	Lead time, days	Order cycle, months	Min lot	Service level	Safety stock	Purchase price	Qty
89654-T	41	46	0	0	30	1		98%	16	248.99	29
VR2156 200	590	50	0	0	30	1	100	98%	27	16.74	160
VB2166 150	54	38	0	0	30	1	100	98%	14	0	100

As you see, quantity to order, recommended by Streamline, has also changed.

Streamline immediately recalculates all of the outcomes as you change any of the replenishment parameters.

Direct changes in inventory reports are *overrides*. They are depicted in blue (see figure above).

To revert to the original parameter value:

- 1. Double click on the cell with the override.
- 2. Delete the override.
- 3. Press Enter to apply the change.

Streamline allows you to create custom reports based on filters. Those reports display the same columns as the **All items** report does. A custom inventory report is a filtered view of the **All items** report. It also allows you to make changes to the replenishment parameters just in the same way as we describe above.

A popular way to make bulk changes to a strictly defined set of planning items is to create a filtered view first and then set up your parameter for all of the items in this view.

Distribution center tab provides the same possibilities to modify replenishment parameters as **Inventory planning** tab does (see figure below).

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ngs 📖 In transit	ion details 📓	Export report	Expor	t parameters	🟴 Import par	ameters 🔻 🖷	Planned orders	Overall pure	chase value is 70
ltem code	Location	DC on hand	Days of supply	DC to ship	DC to receive	DC lead time, days	DC order cycle, months	DC service level	DC safety stock
05-T48	DC	64	24	0	0	30	1	98%	70
016542 Yellow	DC	232	9	0	0	30	1	98%	52
016543 Purple	DC	154	15	0	0	40	1	98%	96
45645-HW	DC	0	0	0	0	30	1	98%	2
056329 N PW	DC	110	75	0	0	50	1		0
056329 PU PW	DC	98	12	0	0	30	1	98%	9
120565 MB	DC	68	21	0	0	30	1	98%	14

Intersite optimization tab duplicates (see figure below) the replenishment parameters shown in the **Inventory planning** tab. Normally, this tab is used to create and export transfer orders between location, not to specify replenishment parameters. However, you can also set them there.

	🕽 Start 🛛 🔤 De	mand forecas	ting 🔍	Inventory	planning	anter-s	tore optimiza	tion 📃 R	eports	Dashbo;
7	New filter All ite	ems								
Se	earch 🔍	🎡 Settings	🚚 In tr	ansition deta	ails 📓 Ex	ort table	 The Export 	parameters	📲 Import	parameters
	ltem code	Location	On hand	Days of supply	To ship	To receive	Lead time, days	Order cycle, months	Service level	Safety stock
1	dress	east	500	95	0	626	30	1	98%	224
2	dress	north	500	39	0	123	30	1	98%	0
3	dress	west	500	61	0	54	30	1	98%	125
4	t-shirt	east	500	76	0	200	30	1	98%	0
5	t-shirt	north	500		0	0	30	1	98%	0
6	t-shirt	west	500	53	0	156	45	1	98%	155

	〕 Start 🛛 🔯 Dei	mand forecas	ting 🝳	Inventory	planning	anter -	store optimiza	ation 😐 R	eports	Dashbo
7	New filter All ite	ems								
S	earch 🔍	🎡 Settings	🚚 In tra	ansition deta	ails 📓 Ei	xport table	 Export 	t parameters	🟴 Impor	t parameter
	v Item code	Location	On hand	Days of supply	To ship	To receive	Lead time, days	Order cycle, months	Service level	Safety stock
1	dress	north	500	39	0	123	30	1	98%	0
2	dress	west	500	61	0	54	30	1	98%	125
3	t-shirt	west	500	53	0	156	45	1	98%	155

Making bulk changes

Streamline allows you to make mass editing of a replenishment parameter in inventory reports. To do this:

1. Select the range of items which you want to modify. Hold **Ctrl** or **Shift** to select a set of successive items. Last mouse click should be within the parameter column that you intend to modify.

2. Press **F2**; or right-click on a cell in the parameter column within the selected area and choose the **Edit** command from the context menu (see figure below).

ing 📎 Invent	ory plannin	g 🔲 Re	eports	Dashboar	ď				
🐉 Settings 🛛 🜉 Ir	n transition	details 🗾	Export tab	le 🔻 🏗E	xport parame	ters 🏴 Imp	ort parame	ters 🔻 📮	Planned of
ltem code	On hand	Days of supply	To ship	To receive	Lead time, days	Order cycle, months	Min lot	Service level	Safety stock
89654-T	41	46	0	0	30	1		98%	16
VR2156 200	590	50	0	0	30	1	100	98%	27
VB2166 150	54	38	0	0	30	1	100	98%	14
L2010	54	130	0	0	30	Constant	ta allahaa	0007	-
H2510	69	11	0	0	30	Copy item	то спрвоа	ra	-
C1020	15	35	0	0	30	Remove fro	om import	:	
B05465-R	266	52	0	0	30	Substitute.		_	
565405 Beatle	1456	224	0	100	30	Select all		Ctrl+A	
565405 Beatle	1181	386	0	100	30	Edit Add note		F2	
565405 Beatle	811	266	0	300	30	Add note			-
565405 Beatle	1092	148	0	200	30	Explain cal	culation	Ctrl+E	
562156-01	1	91	0	0	30	1		98%	2

3. Enter a new value and press **Enter** to confirm the changes.

In our example, we have changed the **Lead time** from **30** to **45** for a set of planning items (see figure below).

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ing 📎 Invent	tory plannin	g 🖪 Re	Reports Dashboard									
🍃 Settings 🛄 In transition details 📓 Export table 🔻 🏗 Export parameters 🎜 Import parameters 💌 🚎												
ltem code	On hand	Days of supply	To ship	To receive	Lead time, days	Order cycle, months	Min lot	Service level				
89654-T	41	46	0	0	30	1		98%				
VR2156 200	590	50	0	0	45	1	100	98%				
VB2166 150	54	38	0	0	45	1	100	98%				
L2010	54	130	0	0	45	1		98%				
H2510	69	11	0	0	45	1	1000	98%				
C1020	15	35	0	0	45	1		98%				
B05465-R	266	52	0	0	45	1	60	98%				
565405 Beatle	1456	224	0	100	30	1	100	98%				

To perform a mass revert to the original values:

1. Select the range of items for which you want to clear overrides. Hold **Ctrl** or **Shift** to select a set of successive items. Last mouse click should be within the parameter column that you intend to modify.

2. Press **F2**; or right-click on a cell in the parameter column within the selected area and choose the **Edit** command from the context menu.

3. Delete the value and press **Enter** to confirm the changes.

Importing from Excel

This method is an alternative to the *Editing in the inventory report* and can be also used to set up replenishment parameters in Streamline.

To get replenishment parameters imported correctly from an Excel file, we should know the format of the file that Streamline understands. To find out the file format, click the **Export parameters** button on the toolbar (see figure below).



Now, you can use the newly created file as a template to fill your parameters in there. As an example, we set up the **Lead time** to **45** days for the first six items (see figure below).

D	E	F	G	н	1	J	к	L
201	202	233	207	221	215	222	208	211
Item code	Description	ABC analysis	On hand	To ship	To receive	Arrival date	Lead time, days	Order cycle,
89654-T	Toaster [constan	B 5.07%	41				45	
VR2156 200	Vital Reds 200g	A 5.79%	590				45	
VB2166 150	Vital Blue 150 g	C 0.0592%	54				45	
L2010	Lumber [season	C 0.0238%	54				45	
H2510	Nails [seasonal r	C 0.149%	69				45	
C1020	Concrete block [C 0.0575%	15				45	
B05465-R	Basketball 29.5 (C 1.69%	266					 +
565405 Beat	One Style XL [ex	C 1.24%	1456					

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Then, save the file and click the **Import parameters** button in Streamline to import your overrides (see figure below).

asting 📀	Inventory planning	🗉 Reports 🛛 🛄 I	Dashboard		
💱 Settings	🛄 In transition details	Export table	 Export parameters 	Import parameters	 Planned orders

All the changes are now imported into Streamline and shown in blue (see figure below).

gs 🛛 🜉 In transi	tion details 🛛 📓 Exp	port table	▼ 1 Export	t parameter	rs 🏴 Imp	ort parame	ters 🔻 🛒	Planned orde	rs Overall p
ltem code	Description	Supplier	Model type	On hand	Days of supply	To ship	To receive	Lead time, days	Order cycle months
89654-T	Toaster [const	3850	Constant	41	46	0	0	45	1
C1020	Concrete bloc	3850	Seasonal	15	35	0	0	45	1
H2510	Nails [season	3850	Seasonal	69	11	0	0	45	1
L2010	Lumber [seas	3850	Seasonal	54	130	0	0	45	1
VB2166 150	Vital Blue 150	1012	Linear tre	54	38	0	0	45	1
VR2156 200	Vital Reds 200	1012	Linear tre	590	50	0	0	45	1
05-T48	Cold & Flu Ta	1012	Linear tre	722	51	0	0	30	1

As soon as the overrides are imported, Streamline recalculates all the outcomes automatically.

To import parameters from another file:

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1. Click on the little arrow near the **Import parameters** button (see figure below).

🗽 Export	k Export parameters		Import parameters			urchase orders
Lead time, days	Order cycle months			Order now		
		choose me			Qty	Days of supply
30	1	98%	3	12	2	6

2. Select the **Choose file...** option (see figure below).

S Import from XLSX					×
← → • ↑ 📘	« HDD	D160 (D:) > Documents	~ ⊽	Search Documents	Ą
Organize 🔻 Ne	w folder	r			• 🔳 🕐
Documents	^	Name	Date modified	Туре	Size
👆 Downloads		Inventory parameters	2/12/2018 1:57 PM	Microsoft Excel W	11 KB
👌 Music					
Pictures					
🐺 Videos					
🏪 SSD256 (C:)					
🔜 HDD160 (D:)	~				
~	File <u>n</u> ar	me: Inventory parameters	~	Excel 2007+ files (*.	xlsx) ~ Cancel

3. Navigate to your file and click the **Open** button.

Setting Up Ordering Availability

You can forbid Streamline to generate purchase orders in given periods in the future. This is useful when your supplier can't take orders during some time in the future for some reasons.

Let's illustrate this using an example. We open the built-in example **Inventory planning by month**, go to the **Demand forecasting** tab, and select the **Figure skates** product under the **Sporting goods** category in the tree (see figure below).

Image: Start Image: Start <t< th=""></t<>									
Expand Collapse		Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019		
✓ All items	Actual sales	37	55	91					
 Consumer goods Building materials and equi Electronics 	Statistical forecast	36	54	84	30	31	34		
	Forecast overrides								
> Furniture	Average sales price	82.94	84.92	88.99	88.99	88.99	88.99		
 Sporting goods 56645 Figure Skates — 	Revenue	3,068.78	4,670.6	7,475.16	2,669.7	2,758.69	3,025.66		
B05465-R — Basketball	On hand	47	69	114					
 Fashion Food/Beverages 	Stockout days	0	0	0					
> Pharmacies	Projected inventory levels			33	4	4	4		
	Ordering plan			1	31	34	32		

As you see, Streamline recommends placing a purchase order in each of the future periods.

Assume, our supplier can't take orders in **January** and **February** of **2019** for this product. To set these constraints, we go to the menu **File** > **Settings** > **Project** tab and check the **Enable ordering availability** option (see figure below).

Settings X
General Project ABC analysis Inventory Distribution center Dat
Update data Quick update (no history overlap)
Forecast Model is seasonal when test ≥ 0.30 ↓ □ Forecast prices separately from demand
Inventory planning Enable inter-store optimization Enable ordering availability Combine Display qty with Safety stock as:
Maximum Sum
Inventory carrying costs Annual interest rate (reduces margin) 0 🐳 %
Reports Add quantity-to-receive to on-hand for KPI calculations (Impacts the calculation of stockouts and days of supply) Supply time in Days O Months Measure of forecast quality MAPE O Accuracy = 100% – MAPE
OK Cancel

Now, a new row called **Ordering availability** has been added into the **Table** (see figure below).

Last update: configuring-the-inventory-parameters https://gmdhsoftware.com/documentation-sl/configuring-the-inventory-parameters

Expand Collapse		Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019
 All items Consumer goods Building materials and equi 	Actual sales	37	55	91			
	Statistical forecast	36	54	84	30	31	34
> Electronics	Forecast overrides						
 Furniture Sporting goods 	Average sales price	82.94	84.92	88.99	88.99	88.99	88.99
56645 Figure Skates —	Revenue	3,068.78	4,670.6	7,475.16	2,669.7	2,758.69	3,025.66
B05465-R — Basketball	On hand	47	69	114			
 Fashion Food/Beverages 	Stockout days	0	0	0			
> Pharmacies	Projected inventory levels			33	4	4	4
	Ordering plan			1	31	34	32
	Ordering availability			\checkmark	\checkmark	\checkmark	\checkmark

This row has a set of checkboxes allowing you to specify the periods where Streamline is permitted to generate purchase orders. By default, there are no restrictions on that; Streamline is allowed suggesting orders in any of the future periods. The default color for the **Ordering availability** checkboxes is gray, meaning that this parameter has not been changed yet.

Now, let's set our constraints (see figure below).

Expand Collapse		Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019
✓ All items	Actual sales	37	55	91			
 Consumer goods Building materials and equi 	Statistical forecast	36	54	84	30	31	34
 Electronics 	Forecast overrides						
 Furniture Sporting goods 	Average sales price	82.94	84.92	88.99	88.99	88.99	88.99
 Sporting goods 56645 Figure Skates 	Revenue	3,068.78	4,670.6	7,475.16	2,669.7	2,758.69	3,025.66
B05465-R — Basketball	On hand	47	69	114			
 Fashion Food/Beverages 	Stockout days	0	0	0			
> Pharmacies	Projected inventory levels			33	71	40	6
	Ordering plan			68	0	0	30
	Ordering availability			\checkmark			\checkmark

As you see from the figure, as soon as we set the constraints:

- 1. The color of all checkboxes in the **Order availability** row has changed to black.
- 2. The **Ordering plan** row has been immediately recalculated.
- 3. A *black* icon 42 has been added to the currently selected tree node indicating changed ordering availability options.

Now, we don't have orders in **January** and **February** – the order quantity is zero (see figure above). However, the current order has been increased from **1** unit to **68** units, in order to cover the demand for **January** and **February**.

Streamline is extremely flexible when it comes to setting the ordering availability constraint. Basically, you can set ordering availability checkboxes at any level of the tree. Be it a location, a channel, an item, an item category, or a location category level.

Ordering availability at a category level

Assume, we need to set up ordering availability constraint at a category level, for example, for all sporting goods. To do this, we click at this node in the tree and disallow ordering, for instance, for **January 2019** (see figure below).

Expand Collapse		Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019
✓ All items	Actual sales	155	189	303		
 Consumer goods Building materials and equipments 	Statistical forecast			281	130	113
 Electronics 	Forecast overrides					
Furniture Sporting goods	Average sales price	31.94	35.32		32.81	35.99
 Sporting goods 56645 Figure Skates — Whit 	Revenue	4,950.88	6,675.24	10,617.31	4,264.7	4,066.59
✓ Ø B05465-R — Basketball 29.5	On hand	196	237	380		
 Fashion Food/Beverages 	Stockout days					
 Pharmacies 	Projected inventory levels			108	178	65
	Ordering plan			200	0	84
	Ordering availability			\checkmark		\checkmark

As you see, the ordering availability constraint was propagated down the tree to the lowest level. Now item **B05465-R** has a gray icon \square .

All the nodes below the selected category level inherit the options got from the top. This is the default behavior. Streamline does not apply category constraint to the child nodes that have their own ordering constraints. I.e., nodes having black icon \emptyset .

Clearing ordering availability

As an example, let's remove ordering availability for the product **Figure skates**. To do this, right-click at the node in the tree and select the **Mass clear** > **Ordering availability** command from the context menu.

Expand Collapse		Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019
✓ All items	Actual sales	55	91			
 Consumer goods Building materials and equipments Electronics Furniture Constinue equipments 	Statistical forecast	54	84	30	31	34
	Forecast overrides					
	Average sales price	84.92	88.99	88.99	88.99	88.99
 Ø Sporting goods 56645 Figure Skates — Whit 	Revenue	4,670.6	7,475.16	2,669.7	2,758.69	3,025.66
B05465-R — Basketball 29.5	On hand	69	114			
 Fashion Food/Beverages 	Stockout days	0	0			
> Pharmacies	Projected inventory levels		33	36	5	4
	Ordering plan		33	0	33	32
	Ordering availability		\checkmark		\checkmark	\checkmark

In our example, **Figure skates** product is under the **Storting goods** category which has its own ordering availability constraint. As you see, the icon for our product has changed to its gray version in

the tree, meaning that the node now inherits the options from the parent node.

You can apply **Mass clear** commands at any level of the tree.

Next: Viewing Purchase Plan and Projected Inventory Levels

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