

amasty

Guide for Advanced MSI for Magento 2

Distribute your inventory among numerous warehouses. Level up your stock management and reduce shipping costs with a smart source selection algorithm.

- Add an unlimited number of sources
- Optimize shipping costs with a smart algorithm
- Manage stock right from the product grid
- Configure custom shipping methods and rates
- Keep your store managers timely notified

Explore our internal [Knowledge Base](#) to gain even more valuable insights and uncover answers to popular questions about the configuration and features of the Magento 2 Advanced MSI extension.

Configuration

The extension settings page can be found in **Stores → Configuration → Amasty Extensions → Advanced MSI**.

General Settings

General Settings



Enable Module
[global]

Yes	▲
Yes	
No	

Minimal Delivery Cost Algorithm Settings



Automatic Source Selection & Shipping Cost Calculating



Enable Module - set to Yes to apply the extension.

Notice, that the extension works on Magento 2.3 version and higher. Contact us, if your

Magento version is 2.2 or lower.

Minimal Delivery Cost Algorithm Settings

The extension allows you to customize the algorithm of a warehouse selection. Here you can define the automatic source selection algorithm that will be used when one product is assigned to multiple sources.

Minimal Delivery Cost Algorithm Settings

Default Source Selection Algorithm
[global]

Combined Source Selection Algorithm ▼



Distance Priority

Source Priority

Product Stock Availability by Amasty

Combined Source Selection Algorithm

Criteria Prioritization for Combined Algorithm
[global]

Criteria	Active	
Nearest Source	Yes ▼	
Available in One Source	Yes ▼	
Source Priority (Native Algorithm)	Yes ▼	



Distance to Warehouse Round off, Km
[global]

5

Default Source Selection Algorithm - the extension offers you 4 Source Selection Algorithms:

- **‘Source priority’** algorithm - chooses an optimal warehouse according to its priority in the stock assignment settings block.
- **‘Product Stock Availability by Amasty’** algorithm - selects an optimal store by the availability of goods. The algorithm chooses the source that has all order items in stock. This helps avoid breaking the order into several shipments from different sources, which makes shipment faster and less pricey.
- **‘Product Stock Distance by Amasty’** algorithm - a native-like algorithm, that picks the nearest warehouse from a customer and helps you save up on transportation costs.
- **‘Combined Source Selection Algorithm’** - it is a custom algorithm, that uses 3 criteria above one by one until the ‘perfect match’ is found.

The selected algorithm will be immediately applied to the ordered items on the shipment creation page.

Criteria Prioritization for Combined Algorithm - set the priority of each criterion for 'Combined Source Selection Algorithm' via drag and drop.

How it works:

The algorithm will apply the upper criteria first. If the result consists of several sources that fit the condition of the first criteria, the list of these several warehouses will be transferred to the next lower criteria for processing. The sources that don't fit the first criteria will not be processed by the second one. But they will be available on the shipment creation page with lower priority.

Distance to warehouse round off, km - set the distance value that will be used in the Amasty 'Combined Source Selection Algorithm'. If the distance between the closest and other warehouses is less than the value, the warehouses are considered to be equally distant from the customer.

Automatic Source Selection & Shipping Cost Calculating

Automatic Source Selection & Shipping Cost Calculating

Enable Automatic Source Selection
[global]

Yes



Enable Automatic Source Selection - set to Yes to activate the chosen algorithm as soon as a customer places an order. The necessary source for shipment will be selected automatically and displayed to a customer with a shipping cost information. This option allows using shipping services (like UPS, USPS, FedEx, DHL) with Multi-Source Inventory. The origin sources will be chosen during order creation, and a customer will be charged for the shipping costs immediately on the checkout page. Shipping costs will be calculated for each source (warehouse) depending on its address and then summarized.

Please note, that Shipping(s) for an order will be created immediately after a click on 'Ship' button on the order details page in the admin area.

If this option is enabled, you won't be able to change items' quantity in the admin panel. But you will see all the information about the order and its shipment in the **Order View** section.

#0000000003

← Back

Print

Save

Inventory

Source: Chicago Warehouse

Items Shipped

Product	Qty Shipped
Compete Track Tote	1
SKU: 24-WB02	

Manage Sources

Note that sources are your **warehouses**. To let the extension work you need to create at least 2 sources.

Sources are the physical locations where product inventory is managed and shipped for order fulfillment. These locations can include warehouses, brick-and-mortar stores, distribution centers, and drop shippers.

To find the list of all sources, click **Manage Sources** menu tab in the admin panel. You can easily track your sources by code, name, and status. The extension allows you to **Edit** already existing sources and **Add** a new source right from the admin panel.

Manage Sources

Add New Source

Search by keyword

Filters

Default View

Columns

5 records found

20

per page

<

1

of 1

>

	Code	Name	Is Enabled	Action
<input type="checkbox"/>	Berlin	Berlin Warehouse	Enabled	Edit
<input type="checkbox"/>	Chicago	Chicago Warehouse	Enabled	Edit
<input type="checkbox"/>	default	Default Source	Enabled	Edit
<input type="checkbox"/>	London	London Warehouse	Enabled	Edit
<input type="checkbox"/>	Moscow	Moscow Warehouse	Enabled	Edit

Mind that sources can't be deleted to prevent order data loss. You can only disable sources and change the related info, including location and contacts. The code of the source can't be changed.

Add New Source

To create a source, press the **'Add New Source'** button and fill in general information about a warehouse.

[← Back](#) [Reset](#) [Save & Continue](#) ▼

General

Name *

Code *

Is Enabled ☒ Yes

The Default Source must be enabled. A default source is required for single source merchants and product migration.

Description

Latitude

Longitude

Low Stock Notification

Shipment Email Notification

Pay attention to the source code field. If you create a source with the code that already exists, the Magento will override the old source with a new one. It happens as it is impossible to delete sources from Magento. Find out more about the default algorithm [here](#).

Get email notifications when an item should be shipped from a particular warehouse and on an item low stock situation. All you need to do is to specify an appropriate email in the fields **Low Stock Notification** and **Shipment Email Notification**.

For admin convenience, *Source name* and *Source Address* will be displayed in the header of Low Stock Email notification.

Then fill in warehouse contact information and address data.

Contact Info

Contact Name	<input type="text" value="Bastian"/>
Email	<input type="text" value="Bastian@berlin.com"/>
Phone	<input type="text" value="+49 30 902 77 31 01"/>
Fax	<input type="text" value="+49 30 902 77 31 01"/>

Address Data

Country *	<input type="text" value="Germany"/>	▼
State/Province	<input type="text" value="Berlin"/>	▼
City	<input type="text" value="Berlin"/>	
Street	<input type="text" value="Genslerstraße 84, Berlin"/>	
Postcode *	<input type="text" value="13359"/>	

Now you can assign products to a source (warehouse) and adjust quantity. Click **Add Products to Source** button to add new products. Edit product quantity right from the grid. You may choose multiple products and change their status in bulk. Use filters to quickly pick out the needed items. Here you can also specify the **low stock** quantity: you'll automatically get a notification when the product quantity reaches this number.

Products in Source

Add Products to Source

Filters

Default View

Columns

Actions

22 records found (2 selected)

20

per page

<






1

of 2

>

Cancel

Save Edits

	ID ↓	Thumbnail	Name	Source Item Status	Qty	Notify Low Qty	Status	Type	SKU	Action
				All in Column	All in Column	All in Column				
							Apply			
<input checked="" type="checkbox"/>	1		Joust Duffle Bag	In St	53	<div>1</div> <input checked="" type="checkbox"/> Use Default Value	Enabled	simple	24-MB01	
<input checked="" type="checkbox"/>	2		Strive Shoulder Pack	In St	50	<div>1</div> <input checked="" type="checkbox"/> Use Default Value	Enabled	simple	24-MB04	
<input type="checkbox"/>	3		Crown Summit Backpack	In Stock	0	1	Enabled	simple	24-MB03	Remove

Adjust shipping methods settings for the source. You may fill in a fixed amount, or set to use **Shipping Provider Rate**.

Custom Shipping Methods and Rates

Flat Rate

Fixed

☒ Use Shipping Provider Rate

Best Way

Table Rate

☒ Use Shipping Provider Rate

Note, that if you use the **fixed cost** for the shipping method, all predefined shipping calculations for this source will be **overridden** with this fixed amount.

Save the source.

Assign Sources to Stocks

Stocks enable store owners to unite several sources and then link them to sales channels and salable quantities. Technically, stocks represent a virtual, aggregated inventory of products available for sale to your sales channels (currently these are websites). Each stock maps your sales channels with sources for available inventories and salable quantities. Depending on your site configuration, the stock may be assigned to one or more sales channels and sources. Through the stock, you can modify the prioritization of sources used when shipping orders and by the **Source Selection Algorithm**.

Keep in mind, that when you create a new stock, it can be saved without the assigned source, and the page will be redirected to the “New Stock” page with empty form. Find out more how the default Magento algorithm works [here](#).

You start with a **Default Stock** assigned with the **Default Source** and your website, best used by Single Source merchants. Only the Default Source can be assigned to this stock. **Multi-Source merchants** create custom stocks for custom sources and websites as needed. You can easily do it with the help of our Magento 2 MSI extension.

To assign sources to stocks, please go to **Manage Stocks** menu.

Manage Stock

  admin ▾

[Add New Stock](#)


 Filters

 Default View ▾

 Columns ▾

Actio... ▾

3 records found

20

▾ per page

<

1

of 1

>

<input type="checkbox"/>	ID ↓	Name	Sales Channels	Assigned sources	Action
<input type="checkbox"/>	1	Default Stock		Default Source (default)	Edit
<input type="checkbox"/>	2	Main Stock	website Main Website (base)	Berlin Warehouse (Berlin) Chicago Warehouse (Chicago) London Warehouse (London) Moscow Warehouse (Moscow)	Edit
<input type="checkbox"/>	3	Singapore Stock	website Singapore Website (singapore)	Singapore Warehouse (Singapore)	Edit

Then choose a necessary stock and press the **Edit** button.

General



Name *

Main Stock

Sales Channels



Websites

Main Website

Singapore Website











Use Ctrl+Click for check several values or uncheck value. All unassigned sales channels will be assigned to the Default Stock.

Name - specify the name for your stock.

Sales Channels - specify the sales channel. Sales channels represent entities selling your inventory, including websites and store views. Each sales channel can be assigned only to a single stock, and a single stock can be assigned to multiple websites. After you specify the Sales Channel, any previous assignation would be removed for each selected Sales Channel. Use **Ctrl+Click** to check several values or uncheck value. All unassigned sales channels will be assigned to the Default Stock.

In the settings block find **'Sources'** tab and assign sources to the stock. You can change sources priority via drag and drop. The priority is used by 'Source priority' algorithm.

Assign Sources

Assigned Sources	Code	Name	Unassign
	 Berlin	Berlin Warehouse	
	 Chicago	Chicago Warehouse	
	 London	London Warehouse	
	 Moscow	Moscow Warehouse	

Assign Sources to Products

It is also possible to assign items to a source (warehouse) and manage the stock from the product grid. To do this, please go to **Catalog → Products**.

Products





admin

Add Product

Filters | Default View | Columns

Search by keyword

Actions 2046 records found 20 per page 1 of 103

	ID	Thumbnail	Name	Type	Attribute Set	SKU	Price	Quantity per Source	Salable Quantity	Visibility	Status	Websites	Action	Edit Stock
<input type="checkbox"/>	1		Joust Duffle Bag	Simple Product	Bag	24-MB01	\$34.00	Berlin Warehouse: 53 Chicago Warehouse: 0 London Warehouse: 12 Moscow Warehouse: 4	Main Stock: 78	Catalog, Search	Enabled	Main Website	Edit	Edit Stock
<input type="checkbox"/>	2		Strive Shoulder Pack	Simple Product	Bag	24-MB04	\$32.00	Berlin Warehouse: 50 Chicago Warehouse: 20 Default Source: 100 London Warehouse: 48 Moscow Warehouse: 80	Main Stock: 208 Default Stock: 110 Singapore Stock: 69	Catalog, Search	Enabled	Main Website	Edit	Edit Stock
<input type="checkbox"/>	3		Crown Summit Backpack	Simple Product	Bag	24-MB03	\$38.00	Berlin Warehouse: 0 Default Source: 100	Main Stock: 10 Default Stock: 110	Catalog, Search	Enabled	Main Website	Edit	Edit Stock
<input type="checkbox"/>	4		Wayfarer Messenger Bag	Simple Product	Bag	24-MB05	\$45.00	Berlin Warehouse: 20 Default Source: 100 London Warehouse: 7 Moscow Warehouse: 15 Singapore Warehouse: 5	Main Stock: 52 Default Stock: 110 Singapore Stock: 15	Catalog, Search	Enabled	Main Website	Edit	Edit Stock

Click **Edit** to adjust the stock quantity for each source in the product settings.

Joust Duffle Bag

Sale

[global]

No

Sources

Assign Sources

Advanced Inventory

Assigned Sources

Source Code	Name	Source Status	Source Item Status	Qty *	Notify Quantity	Notify Quantity Use Default	Unassign
Berlin	Berlin Warehouse	Enabled	In Stock	53	1	<input checked="" type="checkbox"/>	
Chicago	Chicago Warehouse	Enabled	In Stock	0	1	<input checked="" type="checkbox"/>	
London	London Warehouse	Enabled	In Stock	12	1	<input checked="" type="checkbox"/>	
Moscow	Moscow Warehouse	Enabled	In Stock	4	1	<input checked="" type="checkbox"/>	

Hit the button **Edit Stock** on the grid to quickly adjust the product stock for each warehouse in a convenient pop-up window.



Edit Stock for Joust Duffle Bag

	Name	Source Item Status	Quantity	Notify Qty	Action
<input checked="" type="checkbox"/>	Berlin Warehouse	In Stock	<input type="text" value="53"/>	<input type="text" value="1"/> <input checked="" type="checkbox"/> Use Default Value	
<input type="checkbox"/>	Chicago Warehouse	In Stock			Edit
<input type="checkbox"/>	Default Source	In Stock	0	1	Edit
<input type="checkbox"/>	London Warehouse	In Stock	12	1	Edit
<input type="checkbox"/>	Moscow Warehouse	In Stock	4	1	Edit
<input type="checkbox"/>	Singapore Warehouse	In Stock	0	1	Edit
<input type="checkbox"/>	Singapore Warehouse 2	In Stock	0	1	Edit

[Cancel](#)[Save](#)




[Close](#)

You can also easily **edit products in bulk** right from the grid. Just select the products and specify the **Action** you need: Delete, Change Status, Assign Inventory Source, Unassign Inventory Source, Transfer Inventory To Source.

Actions ▲

2046 records found (6 selected)


20 ▼

	Thumbnail	Name	SKU	Price	Quantity per Source	Salable Quantity
		Joust Duffle Bag	24-MB01	\$34.00	Berlin Warehouse: 53 Chicago Warehouse: 0 London Warehouse: 12 Moscow Warehouse: 4	Main Stock: 78
<input checked="" type="checkbox"/>	2		24-MB04	\$32.00	Berlin Warehouse: 50 Chicago Warehouse: 20 Default Source: 100 London Warehouse: 48 Moscow Warehouse: 80	Main Stock: 208 Default Stock: 110 Singapore Stock: 69
<input checked="" type="checkbox"/>	3		24-MB03	\$38.00	Berlin Warehouse: 0 Default Source: 100	Main Stock: 10 Default Stock: 110

Create Shipments in One Click

Let's imagine you've already configured the extension and got the first order. It's time to ship it. Go to **Sales → Orders**. Then choose a necessary order and hit the **View** button.

#000000003

 admin

← Back

Cancel

Send Email

Hold

Invoice

Ship

Reorder

Edit

ORDER VIEW

Information

Invoices

Credit Memos

Shipments

Comments History

Order & Account Information

Order # 000000003 (The order confirmation email was sent)

Order Date

Feb 1, 2019, 8:52:35 AM

Order Status

Pending

Purchased From

Main Website
Main Website Store
Default Store View

Placed from IP

213.184.226.82

Account Information

Customer Name

Guest

Email

example@order.com

Customer Group

NOT LOGGED IN

Address Information

Billing Address

Edit

Jean Renoir
Le Meurice 228 rue de Rivoli, 75001
Paris, 75001
France
T: 00 33 1 40 00 00 00

Shipping Address

Edit

Jean Renoir
Le Meurice 228 rue de Rivoli, 75001
Paris, 75001
France
T: 00 33 1 40 00 00 00

Now, please click the **Ship** button to open a shipment creation page.

Source Selection

[< Back](#)
[Proceed to Shipment](#)
[Source Selection Algorithm](#)


Distance Priority

Source Priority

Product Stock Availability by Amasty

Combined Source Selection Algorithm

Select a Source to Ship from

Source *

Items Ordered

[<](#)
 of 1
 [>](#)

Product	SKU	Qty To Ship	Available Sources		
Compete Track Tote	24-WB02	1	Source	Qty Available	Qty To Deduct *
			London Warehouse	18	<input type="text" value="1"/>
			Moscow Warehouse	9	<input type="text" value="0"/>
			Chicago Warehouse	32	<input type="text" value="0"/>
Joust Duffle Bag	24-MB01	1	Source	Qty Available	Qty To Deduct *
			London Warehouse	12	<input type="text" value="1"/>
			Moscow Warehouse	4	<input type="text" value="0"/>
			Berlin Warehouse	53	<input type="text" value="0"/>

The module automatically chooses the default source selection algorithm, determines the optimal source and the number of products to be shipped.

If the automatic shipping cost calculation is enabled, the module will choose the necessary source while a customer creates an order. If this functionality is disabled, you can change the source selection algorithm right from this page and change the quantity to deduct from each source.

Press **'Proceed to Shipment'** button and ship the order.

Import Data

With the extension, you can fill product quantities in a sample file and quickly import stocks for each source.

To do this go to **System → Import**. In the Entity Type choose **'Stock Sources'**, then download and fill in a sample file.

Decide whether you want to update, replace or delete data by configuring **'Import Behavior'**.

Set import configuration to stop import on any number of errors to prevent loading broken data or skip error entries.

Then choose a file to import (already filled in sample file) and press the **'Check Data'** button.

Check Data

Import Settings

Entity Type * Stock Sources [Download Sample File](#)

Import Behavior

Import Behavior * Add/Update

* Stop on Error

Allowed Errors Count * 10
Please specify number of errors to halt import process

Field separator * ,

Multiple value separator * ,

Empty attribute value constant * __EMPTY_VALUE__

Fields enclosure ☐

File to Import

Select File to Import * stock_sources (2).csv

Images File Directory

For Type "Local Server" use relative path to Magento installation, e.g. var/export, var/import, var/export/some/dir

Correct the mistakes and press the **'Import'** button to import stock data.

Validation Results



Checked rows: 4, checked entities: 4, invalid rows: 0, total errors: 0



File is valid! To start import process press "Import" button

Import

Moreover you can export the distribution of goods in warehouses from Amasty Multi Warehouse Inventory and import it in MSI with no efforts.

Make sure that you don't change a sample file structure and that a file isn't more than 2M.

Export Data


To export needed stock data, please navigate to the **System → Export** tab.

Entity Type - choose **Stock Sources**.

Export File Format - **CSV** format is needed.

You may also exclude particular attribute values from the exporting if needed. In the **Entity Attributes** table tick the attribute columns you want to exclude and hit the **Continue** button.

Export

 demouser ▾

Export Settings

Entity Type

Stock Sources ▾

Export File Format

CSV ▾

Fields Enclosure



Entity Attributes

[Search](#)[Reset Filter](#)

4 records found

Exclude	Attribute Label	Attribute Code ↓	Filter
	<input type="text"/>	<input type="text"/>	
<input type="checkbox"/>	source_code	source_code	<input type="text"/>
<input type="checkbox"/>	sku	sku	<input type="text"/>
<input type="checkbox"/>	status	status	-- Not Selected -- ▾
<input type="checkbox"/>	quantity	quantity	From: <input type="text"/> To: <input type="text"/>

[Continue](#)

On Nov 18, 2019, **we've significantly updated the Multi Warehouse Inventory** extension. You can easily migrate your data from the old version of MWI to the Advanced MSI extension or Updated MWI. Please follow the instructions below.

Export From Old MWI and Import to Magento Inventory Management / Updated MWI

Before to start the data migration, please make sure, that all-important fields in the MWI (warehouse info) are filled in correctly: Warehouse Name, Warehouse Code, Country, Postcode. The data export from the Multi Warehouse Inventory can be performed only via conventional export **System → Export**.

If you exported or imported only a part of warehouses and need to Export/Import the rest, please note, that **source_codes** may not match. In this case, the CSV file will not update your database but will add data to it.

To migrate all the data correctly, you'll need to take two steps:

- Transfer the sources (warehouses)
- Transfer the filling of the sources with products

Step 1: Transfer the sources

Please go to **System → Export**. Choose the entity type **Amasty Warehouses (Sources) Export** to export the sources.

Export

Export Settings

Entity Type

Amasty Warehouses (Sources) Export ▼

Export File Format

CSV ▼

Fields Enclosure

☐

Entity Attributes

Search

Reset Filter

4 records found

Field
source_code
sku
status
quantity

Continue

File name	Action
We couldn't find any records.	

- Click the button **Continue** and get the CSV file with the data.
- Go to **System → Import** and choose **Amasty Warehouses (Sources) Import**.

Import

Import Settings

Entity Type *

Amasty Warehouses (Sources) Import

[Download Sample File](#)

Import Behavior

Import Behavior *

Add



Validation Strategy *

Stop on Error



Allowed Errors Count *

10

Please specify number of errors to halt import process

Field separator *

,

Multiple value separator *

,

Empty attribute value constant *

__EMPTY_VALUE__

Fields enclosure

☐

File to Import

Select File to Import *

Choose File

amasty_ware..._155842.csv

File must be saved in UTF-8 encoding for proper import

Images File Directory

- Add the downloaded file.
- Click **Check Data**
- Click **Import**

You may go to Stores → Sources and see the migrated sources, yet not linked to products.

Step 2: Transfer the filling of the sources with products

Please go to **System → Export**. Choose the entity type **Amasty Items per Warehouses (Sources) Export** to export the products and sources link data.

Export

Export Settings

Entity Type: Amasty Items per Warehouses (Sources) Export

Export File Format: CSV

Fields Enclosure: ☐

Entity Attributes

Search [Reset Filter](#) 4 records found

Field
source_code
sku
status
quantity

[Continue](#)

File name	Action
We couldn't find any records.	



- Click the button **Continue** and get the CSV file with the data.
- Add the downloaded file.
- Go to **System → Import**

 Make sure your file isn't more than 2M.

Import Settings

Entity Type *  [Download Sample File](#)

Import Behavior

Import Behavior *  

Validation Strategy * 

Allowed Errors Count *

Please specify number of errors to halt import process

Field separator *

Multiple value separator *

Empty attribute value constant *

Fields enclosure ☐

File to Import

Select File to Import * amasty_ware..._155842.csv

File must be saved in UTF-8 encoding for proper import

- Click **Check Data**
- Click **Import**

If you go to the page of one of the products that were previously linked to the MWI warehouse, you'll see, that now it is linked to the MSI source, the name of which completely coincides with the name of the former one.

After the data migration is complete, please turn off your MWI to avoid the fatal error on the product grid. Also, please perform **php bin/magento index:reindex**.

FAQ

* [What's the difference between the Advanced MSI and Multi Warehouse Inventory modules?](#)

- * [Why is my Multi Warehouse Inventory module different from the one I see on the product page?](#)
- * [How is the shipping rate calculated for orders involving several sources?](#)
- * [Show more articles →](#)

Find out how to install the Advanced MSI extension via [Composer](#).

From:

<https://amasty.com/docs/> - **Amasty Extensions FAQ**

Permanent link:

https://amasty.com/docs/doku.php?id=magento_2:advanced_msi

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