

AvaTax Adobe Commerce Magento2 Extension

Getting Started Guide

v 2.2.2

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ABOUT AVALARA'S AVATAX

Agile, successful companies focus on their core business and outsource complex, administrative functions – such as payroll and sales tax management – to the experts. Avalara can address your sales tax challenges with AvaTax. It's the fastest, easiest, most accurate and affordable way to calculate sales tax; manage exemption certificates; file returns; and remit payments across multiple tax regions. Our tax decision engine determines rates based on 100,000+ taxability rules in 11,000+ taxing jurisdictions and instantly applies them to each transaction within your Magento shopping cart.

SUPPORT

Contact Avalara for any support requests, either via [their support email](#) or via [this page](#).

GETTING STARTED

SUPPORT

For support with your AvaTax account, please visit avalara.com/technical-support. This software will not work unless you have a valid AvaTax account. To obtain the required account information, please contact your Avalara representative.

PREREQUISITES

- Active AvaTax account with a company setup, including applicable nexuses
- Magento running on a server that has the following:
 - Properly configured CRON job
 - The OpenSSL and SoapClient PHP extensions (required by the AvaTax library)

INSTALLATION:

1) INSTALL VIA COMPOSER

This is the recommended installation method as it allows you to easily update the extension in the future. Important: Installation must be performed by an experienced Magento developer and these instructions assume that is the case. Installation support can only be provided to developers.

1. Require the desired version of AvaTax:

```
composer require avalara/avatax-magento:2.2.2
```

2. Setup the AvaTax module in magento

```
bin/magento module:enable --clear-static-content ClassyLlama_AvaTax  
bin/magento setup:upgrade  
bin/magento cache:flush
```

3. If you are deploying the extension to a production environment, follow the [devdocs.magento.com deployment instructions](https://devdocs.magento.com/deployment-instructions)

CONFIGURATION

1. To configure the extension, go to *Stores > Settings > Configuration > Sales > Tax*.
2. Details on configuring each of the extension features:
 - [Sales Tax](#)
 - [Address Validation](#)
 - [Customs, Duty & Import Tax \(CDIT\)](#)
 - [Document Management \(Tax Exemptions\)](#)

3. In the Magento admin, go to *Stores > Settings > Configuration > Sales > Shipping Settings*. Click on the Origin section. Enter the address that will be used as the origin or Shipped From location in AvaTax's tax calculation. It is required that you specify a postal code in the origin address, no matter what country is specified. Otherwise you will get errors in checkout and when saving customers.

IMPORTANT NOTES

- Magento discounts are subtracted from the price before the total amount is sent to AvaTax to retrieve tax information. AvaTax is not sent any information about the discount amount, as the AvaTax 15 API does not support itemized discounting the way Magento does.
- The extension has been tested in multiple currencies.
- Transaction IDs in AvaTax are mapped to Magento's invoice and credit memo numbers.
- Default tax reporting in Magento displays tax collected by each tax rule you created in the system. However, when using AvaTax, Magento tax rules are not used; instead, tax rules and calculations are configured within AvaTax. Because of this, Magento's tax report will (correctly) show that there are no Magento tax rules collecting tax. A full tax report suite is available within your AvaTax dashboard.
- If you've customized checkout at all, it is your responsibility to confirm the continued functionality of Address Validation.
- AvaTax will only accept an invoice ID and credit memo ID once per store. Thus if you're testing in environments that are capable of duplicating those values, be careful to increment those values in Magento or create new test stores in AvaTax.
- Every time you save a customer in Magento, Magento will reach out and attempt to update that customer's data in AvaTax. If the customer doesn't exist, the module just ignores the error and will try again the next time you save the customer in Magento. This happens on customer save within the admin, as well as on the front end.

COMMON PROBLEMS

SoapClient Not Found

After installing extension, you get an error like this:

```
PHP Fatal error: Class 'SoapClient' not found in  
/vendor/avalara/avatax/AvaTax/DynamicSoapClient.php on line 21
```

Solution: You'll need to install the PHP SoapClient library, per the [prerequisites](#) section.

KNOWN ISSUES

- Gift Wrapping and Multi-Address Checkout - If a customer checks out using the multi address checkout, uses multiple ship-to addresses, and adds gift wrapping to any of the items, once the customer places the order, the totals section for each of the resulting orders will contain the gift wrapping price, regardless of whether that order contains gift wrapping.

- Admin Guest Order Create Sales Tax Issue With Customer Group - If you are creating an order in the admin for a new user and select a customer group that should be tax exempt please be aware that the totals section on the create order form may not always calculate tax correctly. Placing the order will collect the tax totals as expected.
- Unit of Measure HS Codes are currently in development within AvaTax's API, therefore the API around Unit of Measure is unstable. For this reason, this module currently does not support any HS Codes that require a Unit of Measure. Avoid using HS Codes with Unit of Measure as they will break checkout.
- If a user proceeds to the 2nd step of checkout (chooses a shipping address and shipping method), then returns to the cart, the cart tax estimator will send 2 requests to the AvaTax API for tax information. It is also possible during these 2 calculations, that no shipping information will be provided, therefore the estimator can show that there is no cost for shipping. If you proceed to checkout, on the 2nd step of checkout the tax calculations, including shipping, will be accurate.

RELEASE NOTES

See this page for release notes:

<https://github.com/astoundcommerce/avatax/releases>

PRE-LAUNCH SALES RECORD CLEANUP

If you have installed the AvaTax extension in a development/testing environment and are planning on deleting orders, invoices, credit memos, etc before launching your site (for example, [see these queries](#)), when you delete those records, you'll also want to delete all records from the following tables. This is important in order to avoid errors when records are inserted into the avatax_queue tables.

```
-- Truncate AvaTax tables

TRUNCATE TABLE `avatax_queue`;

TRUNCATE TABLE `avatax_log`;
```

UNINSTALL EXTENSION

1. Run this command in the root of your Magento installation directory:

```
bin/magento module:uninstall ClassyLlama_AvaTax
```

2. If you installed the module using Composer, run these commands in the root of your Magento installation directory:

```
composer remove avalara/avatax-magento
```

3. Run the following queries in your Magento database:

```

-- Remove AvaTax tables (these tables will be in the sales database in
split-database mode)

DROP TABLE `avatax_queue`;

DROP TABLE `avatax_log`;

DROP TABLE `avatax_sales_creditmemo`;

DROP TABLE `avatax_sales_invoice`;


-- Remove column from Tax Class table

ALTER TABLE `tax_class` DROP COLUMN `avatax_code`;


-- Remove columns from Creditmemo table (this is only relevant for
versions of the extension older than 0.4.0)

ALTER TABLE `sales_creditmemo` DROP COLUMN `avatax_is_unbalanced`;

ALTER TABLE `sales_creditmemo` DROP COLUMN `base_avatax_tax_amount`;


-- Remove columns from Invoice table (this is only relevant for
versions of the extension older than 0.4.0)

ALTER TABLE `sales_invoice` DROP COLUMN `avatax_is_unbalanced`;

ALTER TABLE `sales_invoice` DROP COLUMN `base_avatax_tax_amount`;

```

TROUBLESHOOTING

Before contacting support, performing the following steps to increase the extension's logging level and review the logged details of an API request may reveal what the underlying issue is; and if not, may still provide helpful information for troubleshooting:

Increase AvaTax's Database logging level

- In the backend, navigate to *Stores > Configuration > Sales > Tax > AvaTax Settings*
- Scroll down to the Logging Settings section and change the following settings:
 - Database Log Level = Debug

- Database Log Detail = Extra

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Configuration

will be filled with the error message summary returned by AvaTax.

Logging Settings
[global]

Database Log Level [global] Debug

Warning is recommended for production use.

Database Log Detail [global] Extra

Minimal is recommended for production use.

Database Log Record Lifetime [global] 180

Required. Days before entries are auto-purged.

Enable Logging To File [global] Yes

Archiving of log files is affected by System -> Admin Actions Log Archiving

File Log Mode [global] Separate AvaTax Log File

Log files are located in the magento var/log/ directory

Enable Built-in Log File Rotation [global] No

Automatic log file rotation will allow you to control how much history is maintained in the AvaTax log files, and separate them by day. For more efficient management of log files you should disable this option and use something like logrotate to handle the rotation of log files at the system level.

File Log Level [global] Debug

Warning is recommended for production use.

Save Config

Reproduce the issue that is being experienced on the site and then retrieve the API request's details:

Retrieve the API details for the AvaTax call(s)

- In the backend, navigate to *Stores > AvaTax Logs*
- Locate the log entry for the SOAP call that matches the test case and click the View link

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Clear Logs Now

Summary DEBUG | 227 ERROR | 132 WARNING | 22

Filters

Default View

Columns

Export

381 records found

20

per page

1


of 20

ID	Log Time	Log Level	Log Message	Code Source Reference	Request	Result	Additional	Action
242	Aug 1, 2017 6:07:53 AM	DEBUG	Loaded AvaTaxGetTaxResult from SOAP.		View

Reviewing the details of the Request and Result sections can reveal errors that may not be presented on the frontend.

- If you are getting no tax results, check for an error such as an expired Avalara account.

- If the tax results don't match what is expected, check the address values being sent in the request.



2017-08-01 13:07:53

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Request

```


AvaTax\GetTaxRequest::__set_state(array(
  'CompanyCode' => 'US',
  'DocCode' => 'quote-62',
  'DocType' => 'SalesOrder',
  'DocDate' => '2017-08-01',
  'SalespersonCode' => NULL,
  'CustomerCode' => 'guest-62',
  'CustomerUsageType' => '',
  'Discount' => 0.0,
  'PurchaseOrderNo' => '',
  'ExemptionNo' => NULL,
  'OriginCode' => 0,
  'DestinationCode' => 1,
  'Addresses' =>
  array (
    0 =>
    AvaTax\Address::__set_state(array(
      'AddressCode' => 0,
      'Line1' => '2920 Zoo Dr - Suite A',
      'Line2' => '2920 Zoo Dr - Suite A',
      'Line3' => NULL,
      'City' => 'San Diego',
      'Region' => 'CA',
      'PostalCode' => '92101-1646',
      'Country' => 'US',
      'TaxRegionId' => 0,
      'Latitude' => NULL,
      'Longitude' => NULL,
    )),
    1 =>
    AvaTax\Address::__set_state(array(
      'AddressCode' => 1,
      'Line1' => '2920 Zoo Dr',
      'Line2' => '',
      'Line3' => '',
      'City' => 'San Diego',
      'Region' => 'CA',
      'PostalCode' => '92101-1646',
      'Country' => 'US',
      'TaxRegionId' => 0,
      'Latitude' => NULL,
      'Longitude' => NULL,
    )),
  ),
  'Lines' =>
  array (
    0 =>
    AvaTax\Line::__set_state(array(
      'No' => 'sequence-1',
      'OriginCode' => 0,
      'DestinationCode' => 1,
      'ItemCode' => 'MH07-XS-Black',
      'Description' => 'Hero Hoodie',
      'TaxCode' => '',
      'Qty' => 1.0,
      'Amount' => 54.0,
      'Discounted' => false,
      'RevAcct' => NULL,
      'Ref1' => '',
      'Ref2' => '',
      'ExemptionNo' => NULL,
      'CustomerUsageType' => NULL,
      'BatchCode' => NULL,
      'TaxOverride' => NULL,
      'OriginAddress' =>
      AvaTax\Address::__set_state(array(
        'AddressCode' => 0,
        'Line1' => '2920 Zoo Dr - Suite A',
        'Line2' => '2920 Zoo Dr - Suite A',
        'Line3' => NULL,
        'City' => 'San Diego',
        'Region' => 'CA',
        'PostalCode' => '92101-1646',
        'Country' => 'US',
        'TaxRegionId' => 0,
        'Latitude' => NULL,
        'Longitude' => NULL,
      )),
      'DestinationAddress' =>
      AvaTax\Address::__set_state(array(
        'AddressCode' => 1,
        'Line1' => '2920 Zoo Dr',
        'Line2' => '',
        'Line3' => '',
        'City' => 'San Diego',
        'Region' => 'CA',
        'PostalCode' => '92101-1646',
        'Country' => 'US',
        'TaxRegionId' => 0,
        'Latitude' => NULL,
        'Longitude' => NULL,
      )),
    ),
  ),
)

```

Address code '0' of the 'Addresses' array will contain the origin being used for tax calculation

Address code '1' of the 'Addresses' array will contain the destination being used for tax calculation

- Also check the item(s) being sent in the request



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```

    ),
    'Lines' =>
    array (
      0 =>
      AvaTax\Line::__set_state(array(
        'No' => 'sequence-1',
        'OriginCode' => 0,
        'DestinationCode' => 1,
        'ItemCode' => 'MH07-XS-Black',
        'Description' => 'Hero Hoodie',
        'TaxCode' => '',
        'Qty' => 1.0,
        'Amount' => 54.0,
        'Discounted' => false,
        'RevAcct' => NULL,
        'Ref1' => '',
        'Ref2' => '',
        'ExemptionNo' => NULL,
        'CustomerUsageType' => NULL,
        'BatchCode' => NULL,
        'TaxOverride' => NULL,
        'OriginAddress' =>
        AvaTax\Address::__set_state(array(
          'AddressCode' => 0,
          'Line1' => '2920 Zoo Dr - Suite A',
          'Line2' => '2920 Zoo Dr - Suite A',
          'Line3' => NULL,
          'City' => 'San Diego',
          'Region' => 'CA',
          'PostalCode' => '92101-1646',
          'Country' => 'US',
          'TaxRegionId' => 0,
          'Latitude' => NULL,
          'Longitude' => NULL,
        )),
        'DestinationAddress' =>
        AvaTax\Address::__set_state(array(
          'AddressCode' => 1,
          'Line1' => '2920 Zoo Dr',
          'Line2' => '',
          'Line3' => '',
          'City' => 'San Diego',
          'Region' => 'CA',
          'PostalCode' => '92101-1646',
          'Country' => 'US',
          'TaxRegionId' => 0,
          'Latitude' => NULL,
          'Longitude' => NULL,
        )),
      ),
    ),
  ),
)

```

The 'Lines' array contains the items being sent in the request

Note: If this is a production environment, be sure to change the logging settings back to the recommended values to prevent excessive logging.

When requesting support for the extension, including the Request and Result details in the support request may result in a quicker resolution.

EXTENSION FEATURES

SALES TAX

In Magento, tax calculation typically occurs during checkout but may also happen at other times as well (e.g., shopping cart). This extension will calculate tax via the AvaTax API as soon as the customer submits a postal code, either via the Estimate Shipping and Tax form on the cart or via the Shipping Address form during the checkout process. When an order is placed, the amount of tax for that order is calculated by AvaTax, but the tax "record" is not immediately recorded in AvaTax. Since Magento supports multiple invoices and multiple credit memos for the same order, orders are not recorded as a whole in AvaTax. Tax amounts are calculated for the order when the customer places the order, but nothing is recorded in AvaTax until a new invoice or credit memo is created. Refer to the eCommerce chart on [this AvaTax documentation page](#) for a visualization of the process.

A cron task runs every five minutes to send invoices and credit memos to AvaTax. The status of each pending item can be found in the AvaTax Queue in *Stores > AvaTax Queue*. The Magento CRON must be configured in order for the extension to work properly. If you're testing the extension in an environment is not configured (such as a development or staging environment), you can manually process they queue by clicking the Process Queue Now button on the *Stores > AvaTax Queue* page.

CONFIGURATION

1. In the Magento admin, go to *Stores > Settings > Configuration > Sales > Tax*. Click on the AvaTax - General section.
2. Review each of the options in this section and input the appropriate value. This is [a screenshot of the configuration options](#).
3. The comment text underneath each of the options in this section should explain the purpose of the setting, but here are some notes about some of the settings:
 - Filter Tax Calculation By Region
 - Avalara's recommendation is to leave this option set to the default of No. With this option set to No, Magento will contact Avalara's API for all regions when tax is being calculated in Magento. This will result in more API calls to AvaTax, however based on how Avalara charges for API calls, the impact of these additional API calls may be minimal or non-existent. Read more about how Avalara charges for API calls [here](#). If your site has a large number of people calculating tax (whether in the cart or checkout), but not placing an order, then the 10:1 ratio of "API calls" vs "Documents Recorded" may make it more expensive to have all API calls sent to Avalara for regions where taxes are not being calculated. Here is an overview of how many API calls are made for a standard Magento checkout:
 - Guest checkout (user adds one product to cart, proceeds to checkout, enters shipping address, and then finishes placing order): 3 API calls are sent to Avalara ([screenshot](#))

- Customer checkout (user logs in, adds one product to cart, proceeds to checkout, leaves pre-existing shipping address selected, and then finishes placing order): 2 API calls are sent to Avalara ([screenshot](#))
- If you change the option to Yes, Magento will only contact the AvaTax API for regions where you have a tax nexus. However this may cause issues in the future if you need to see all historical transactions in Avalara, and it might affect report reconciling. Talk to your Avalara support representative before changing this to No.
- This setting does not limit API requests for Address Validation
- Data Mapping — Shipping SKU, Adjustment Refund SKU, Adjustment Fee SKU, Gift Wrap Order SKU, Gift Wrap Items SKU, and Gift Wrap Printed Card SKU: SKUs sent to AvaTax for the associated event. For example, when tax is requested for a single-product order sent to state X, it's possible state X charges tax on shipping. Therefore, two products will be sent in the request: one for the cart item and another for shipping. The correct shipping tax code (FR020100) will always be sent; however, this allows you to customize the SKU in case you want to add custom functionality in your AvaTax dashboard. The same is true when creating a Credit Memo with an adjustment refund or fee in the Magento Admin.
- Set Seller as Importer of Record for Global Transactions: By default, Avalara will use the origin address when calculating sales tax for global transactions (generally resulting in a \$0.00 tax amount). Enabling this setting will cause Avalara to calculate sales tax based on the destination address for countries indicated as taxable in the Taxable Countries selector. For more information on what it means to be the Importer of Record, visit the [Avalara Help Center](#).

PRODUCT TAX CODES

Many merchants will not need to use product tax codes. Refer to the [AvaTax documentation](#) to learn about tax codes. Consult with your Avalara representative if you are uncertain whether you need to use them.

Native Magento has built in Tax Classes (not to be confused with AvaTax's Tax Codes) and it uses those Tax Classes for its internal tax calculation via Tax Rules. If you are using the AvaTax extension for tax calculation then you should not setup Tax Rules, however this extension does use Tax Classes in order to associate Magento products with AvaTax Tax Codes.

1. In the Magento admin, go to *Stores > Product Tax Classes*.
 - i. Click the Create New Tax Class button.
 - ii. Enter a Class Name (can be anything you want) and an AvaTax Tax Code.
 - iii. Click Save Tax Class.
2. In the Magento admin, go to *Catalog > Products*.
 - i. Select the product that you want to associate with your newly created Tax Class.

- ii. In the Tax Class dropdown, select your newly created Tax Class and click Save.
3. Now, when this product is sent to the AvaTax API, the associated AvaTax Tax Code will be sent in the TaxCode field.
4. Follow the steps above for all of the AvaTax Tax Codes that you want to use in Magento.

USE UPC ATTRIBUTE AS ITEM CODE

AvaTax has support for using a UPC as a Item Code, although this is only relevant for certain product categories (apparel, etc). To send UPC codes as Item Code, follow these steps:

1. Create a product attribute that will store the UPC code for your products. The attribute type must be text.
2. In the Magento admin, go to *Stores > Settings > Configuration > Sales > Tax*.
 - i. Click on the AvaTax Settings section.
 - ii. Select your UPC attribute from the UPC Attribute To Use As Item Code dropdown.
 - iii. Click Save Config.
3. Now, when a product is sent to the AvaTax API, if that product has a value in the UPC attribute, it will be sent in the ItemCode field.

CUSTOMER USAGE TYPE (OR ENTITY USE CODE)

Many merchants will not need to use Customer Usage Type. Unless you have customers with special tax exemptions, you most likely do not need to set this up. If you are unsure, contact your AvaTax representative for more information or refer to the [AvaTax documentation](#). Entity Use Code is synonymous with Customer Usage Type.

1. In the Magento admin, go to *Stores > Customer Tax Classes*.
 - i. Click the Create New Tax Class button.
 - ii. Enter a Class Name (can be anything you want) and select the appropriate value from the AvaTax Customer Usage Type dropdown.
 - iii. Click Save Tax Class
2. In the Magento admin, go to *Stores > Customer Groups*.
 - i. Either create a new Customer Group or select an existing one.
 - ii. In the Tax Class dropdown, select your newly created Tax Class and click Save.
3. In the Magento admin, go to *Customers > All Customers*.
 - i. Edit the customer that you want to associate with the Customer Usage Type.
 - ii. Click the Account Information tab.

- iii. Select the appropriate Customer Group from the Group dropdown.
4. Now, when this customer places an order, the associated Customer Usage Type will be sent to the AvaTax API in the CustomerUsageType field.

If you are utilizing customer groups in a way that mixes taxable and tax exempt customers within the same group(s), then you would need to consider custom development to accommodate exempting specific customers from sales tax. A possible solution is the introduction of a plugin for the [\ClassyLlama\AvaTax\Helper\TaxClass::getAvataxTaxCodeForCustomer](#) method that could read the value of a custom attribute for a customer and replace the CustomerUsageType for the customer's assigned customer group with the appropriate value (e.g. 'F' = Religious/Education) to achieve tax exempt status for the lookup.

AVATAX QUEUE

The AvaTax Queue functionality only works when Tax Mode is set to Estimate Tax & Submit Transactions to AvaTax. The following section assumes that AvaTax queueing is enabled. To view the AvaTax Queue, in the Magento admin, go to *Stores > AvaTax Queue*.

When invoices and credit memos are created in Magento, new records are added to the AvaTax Queue with a pending status. If a CRON job is properly configured, then every 5 minutes, all pending records will be submitted to AvaTax with a Document Type of Sales Invoice or Return Invoice, depending on whether the record is a Magento invoice or credit memo (respectively). If there are errors submitting the record, Magento will attempt to resend the record for the number of times configured in the Max Queue Retry Attempts field.

If you are in a development or staging environment and don't have a CRON job setup, you can manually send queued records to AvaTax using the Process Queue Now button on the *Stores > AvaTax Queue* page.

You could choose the way to process items in the queue. There are two options for the `Configuration -> Tax -> AvaTax Advanced -> Queue Processing Type`, Normal and Batch.

UNBALANCED QUEUE ITEMS

Occasionally you may see queue items with a Queue Status of Complete and a Message of something like "Unbalanced Response - Collected: 11.8400, AvaTax Actual: 11.86". In order to understand what an unbalanced queue item is, you need to understand the Magento/AvaTax tax calculation workflow (the example is for an invoice, but same thing applies to credit memos):

- Customer goes through checkout process and provides shipping address.
- Magento connects to AvaTax's API to retrieve tax rates.
- Magento applies AvaTax's tax rates to shopping cart (i.e., quote).
- Customer places order.
- Magento copies AvaTax tax rates from shopping cart to order.
- Depending on how the order's payment method is configured, an invoice will either be created at the time of order creation or at some later point. Whenever the invoice is created, Magento will copy the tax values from the order to the invoice. In situations where multiple invoices are

created per order, Magento will do the best it can of evenly splitting the tax from the order to the invoices for that order.

- Once an invoice is created, it gets added to the AvaTax Queue and the invoice information is submitted to the AvaTax API and the tax amount for that new API request is returned to Magento.
- Magento then compares the tax amount from the new API request to the amount of tax that Magento copied from the order. If the amounts match (most common scenario), then the queue item is set to "Complete" with no message. If the amounts don't match, the queue item is set to "Complete" and a message will be added indicating that the amounts are unbalanced. This is a screenshot of both a balanced and an unbalanced queue

AvaTax Queue

AvaTax Queue

admin

Clear Queue Now

Process Queue Now

Last Processed at Jan 21, 2016 12:11:52 PM - Queue Records Waiting To Be Processed: 0

Filters

Default View

Columns

Export

30 records found

50

per page

1 of 1

	ID ↑	Queue Time	Updated Time	Entity ID	Entity Type ID	Entity Type Code	Increment ID	Queue Status	Processing Attempts	Message	Action
<input type="checkbox"/>	30	Jan 19, 2016 3:36:16 PM	Jan 21, 2016 12:01:19 PM	33	6	invoice	2000000028	complete	1		View Invoice
<input type="checkbox"/>	29	Jan 19, 2016 3:35:51 PM	Jan 21, 2016 12:01:19 PM	32	6	invoice	2000000027	complete	1	Unbalanced Response - Collected: 11.8400, AvaTax Actual: 11.86	View Invoice

These are the most common reasons an invoice or credit memo could become unbalanced:

- Multiple invoices/credit memos are created for an order and there are slight differences in how Magento copies tax from the order vs how AvaTax calculates tax for the invoice/credit memo.
- Since tax rates and configurations can change, the tax amount of orders can also change from the time the customer checks out and when orders are invoiced.

If an invoice or credit memo is unbalanced, a comment will be added to the order with the same unbalanced information that is present on the AvaTax Queue grid Message column (this is important since queue records are eventually deleted). This extension adds two tables to the Magento database (specifically the sales database when using [Magento Enterprise's split database mode](#)):

avatax_sales_creditmemo and avatax_sales_invoice

For reference, here is a screenshot of the avatax_sales_invoice table with some example entries:

Q avatax

×

TABLES

avatax_log

avatax_queue

avatax_sales_creditmemo

avatax_sales_invoice

Search:

entity_id

↕

=

↕

⋮

entity_id	parent_id	is_unbalanced	base_avatax_tax_amount
1	3	1	5.2800
2	4	1	8.9700
3	6	0	15.6800
4	7	0	7.2900
5	8	0	7.2900
6	13	0	3.3600
8	14	1	8.6900
9	15	0	2.6100
10	16	0	8.0600
11	3	1	5.2800
12	4	1	8.9700
13	5	0	0.0000
14	6	0	15.6800
15	7	0	7.2900
16	8	0	7.2900
17	9	0	0.0000
18	10	0	0.0000
19	11	0	0.0000
20	12	0	0.0000
21	13	0	3.3600
26	17	0	10.6700

These tables are not used for anything, but if you need to generate custom reports on unbalanced amounts, you can use these fields within each:

- **parent_id** – This links this row to the sales_invoice or sales_creditmemo tables, based on the "entity_id" field of those tables.
- **is_unbalanced** – Set to "1" if the record is unbalanced and "0" if the record is balanced.
- **base_avatax_tax_amount** – The amount of tax that AvaTax calculated for the invoice or credit memo.

Note: An entry is not made in these tables for an invoice or credit memo until it has been submitted to AvaTax.

Note: Prior to version 0.4.0 of this extension, two fields (avatax_is_unbalanced and base_avatax_tax_amount) were added to the sales_invoice and sales_creditmemo tables that tracked this information. If a merchant upgrades to 0.4.0, the columns on those tables will be migrated to the avatax_sales_invoice and avatax_sales_creditmemo tables mentioned above.

AVATAX LOGGING

The logging functionality built into this extension is for debugging purposes. If you are experiencing issues with this extension, you can review the logs to see if they provide any details about the issues you are experiencing.

This extension can log information in two locations: In files (in the var/log/ directory) and/or in the database (in *Stores > AvaTax Logs*), depending on the logging settings you have configured in *Stores > Settings > Configuration > Sales > Tax > AvaTax Settings > Logging Settings*.

VAT TAX

AvaTax supports calculating VAT tax, assuming you have AvaTax with Global Calculation. If a customer places an order in a jurisdiction with VAT taxing, then this extension will calculate the appropriate amount of tax to charge. However this extension only calculates tax once a customer has provided their postal code, either via the Estimate Shipping and Tax section on the cart or by providing their shipping address in the checkout process. Since many VAT taxing jurisdictions require that VAT tax must be displayed anywhere product prices are displayed, you must use Magento's native tax calculation to handle tax calculation in the catalog (product listing, product detail, search, etc) and then AvaTax will take over the calculation once the customer has provided a postal code.

If you need to display product prices including VAT tax, you should follow the steps in the [Magento documentation](#) to configure your site to charge VAT tax. Once you have done that, Magento's native tax calculation will be used until the user has provided a postal code, at which point AvaTax will be used to determine VAT tax calculation.

MAGENTO ORDER AND INVOICE NUMBERS

If you're using AvaTax with a Tax Mode of Estimate Tax & Submit Transactions to AvaTax, when Invoices or Credit Memos get sent to AvaTax, the Invoice/Credit Memo number will be sent in the Purchase Order No field and the Magento Order Number will get sent in the Reference Code field. See this screenshot of the AvaTax interface for an example of where to find these numbers:

Transaction Detail

Company: XXXXXXXXXX

Done	Print	IO Walk Me Through	Previous	Next
<p>Origin: 2920200 Dr, 2920 Zoo Dr, San Diego, CA 92101-1646, US Location: 20 Zoo Dr, San Diego, CA, 92101-1646, US</p> <p>Document ID: 301434950 Salesperson Code: 119</p> <p>Document Code: C1000000 64123-62073157 Entity Use Code: 2</p> <p>Customer/Vendor Code: 2 Total Amount: 54.00</p> <p>Document Status: Committed on 05/19/2017 Total Discount: 0.00</p> <p>Document Date: 05/19/2017 Taxable: 0.00</p> <p>Document Type: Sales Invoice Total Taxable: 54.00</p> <p>Location Code: Tax Override Type: None</p> <p>Tax Date: 05/19/2017 Tax Override Reason: Ed21</p> <p>Purchase Order No: 000000054</p> <p>Reference Code: 000000051</p> <p>Is Seller Importer Of Record? NO</p> <p>Adjustment Reason: Not Adjusted Message:</p>				

Invoice Number

Order Number

Document Line

Currency in USD Expand All

No	Item	Tax Code	Use Code	Sourcing	Line Amount	Discount	Non-Taxable	Taxable	Tax	TO	To. Included
>	MH07 -5-Black	P0000000			54.00	0.00	0.00	54.00	4.19		
> 2	MH07 -5-Black	P0000000			0.00	0.00	0.00	0.00	0.00		

Change page: 1 2 3 4

Page 1 of 1, items 1 to 2 of 2.

Records Found: 2

Lines Per Page 10

ADDRESS VALIDATION

This extension implements address validation in nearly every area where an address can be entered:

- Frontend Checkout
- Frontend add/edit customer address
- Backend order creation
- Backend add/edit customer address


The following sections explain how address validation works in the four areas listed above. Note: Address validation is not enabled for virtual orders (orders where only a billing address is required).


CONFIGURATION

1. In the Magento admin, go to *Stores > Settings > Configuration > Sales > Tax*. Click on the AvaTax - Address Validation section.
2. Review each of the options in this section and input the appropriate value. This is [a screenshot of the configuration options](#).


LifeLong Fitness IV	\$28.00
---------------------	---------

If the configuration setting Allow User To Choose Original (Invalid) Address has been set to No, only the valid address will be displayed to the user:





Shipping



Review & Payments

Verify Your Address

To ensure accurate delivery, we've made the changes highlighted below. If this address is not correct, [edit your address](#).

Veronica Costello
4064 S Lone Pine Ave
Springfield, MO 65804-6605

Payment

☒ Cash On Delivery

☒ My billing and shipping address are the same

Veronica Costello
4064 S Lone Pine Ave
Springfield, Missouri 65804-6605
United States
1234567890

☐ Bank Transfer Payment

Place Order

Order Summary

Cart Subtotal	\$333.00
Discount	-\$66.60
Shipping Best Way - Table Rate	\$5.00
Tax	\$0.00
Order Total Incl. Tax	\$271.40
Order Total Excl. Tax	\$271.40

8 Items in Cart ^



Fusion Backpack
Qty: 2
\$118.00



Breathe-Easy Tank
Qty: 1
\$34.00

If a signed in customer is checking out and their address gets validated, the address the customer selected will automatically be set to the suggested address once the customer proceeds to the Review & Payment step. If the customer selects the original address, their customer address will be updated to that address. This will happen every time the user selects a different address.

If the user submits an address that AvaTax cannot validate, an [error message](#) will be displayed to give some indication to the user that their address may be incorrect. This does not disrupt the checkout process:

Verify Your Address

We were unable to validate your address.

The address number is out of range

If the address below is correct then you don't need to do anything. To change your address, [click here](#).

Veronica Costello
5000 S Lone Pine Ave
Springfield, MO 65804

Payment

☒ Cash On Delivery

☒ My billing and shipping address are the same

Veronica Costello
5000 S Lone Pine Ave
Springfield, Missouri 65804
United States
1234567890

Place Order

☐ Bank Transfer Payment

Order Summary


Cart Subtotal	\$333.00
Discount	-\$66.60
Shipping	\$5.00
Best Way - Table Rate	
Tax	\$0.00


Order Total Incl. Tax \$271.40

Order Total Excl. Tax \$271.40

8 Items in Cart ^

 Fusion Backpack \$118.00
Qty: 2

 Breathe-Easy Tank \$34.00
Qty: 1
v

 LifeLong Fitness IV \$28.00
Qty: 2

If the address is already valid or if the address is from a country that is not on the list of Enabled Countries for address validation, nothing will be displayed to the user.

If the user clicks the edit your address or click here links in the instructions, they will be navigated back to the Shipping step.

CAVEATS

- If a customer selects the suggested address and goes back to the shipping step, the customer address in the database will be validated but the address displayed to the customer will not appear to be validated. If they leave that address selected and proceed to the Review & Payment step, they will see no option to Verify Your Address and the valid address will already be assigned to the quote.
- Refreshing the page on the Review & Payment step removes the Verify Your Address section. The address that was selected before the refresh will be the shipping address on the quote. This also has the effect of negating the first caveat. The user still has the ability to progress to the first step and submit a different address for validation but the address the initially submitted will already be valid so they will not see the Verify Your Address section after progressing to the Review & Payment step.
- New addresses created by a signed in customer will not be validated until they progress from the Shipping step to the Review & Payment step.
- Address validation for multi-address checkout is not available.

FRONTEND ADD/EDIT CUSTOMER ADDRESS

When a customer is adding or editing an address tries to save that address, they will be presented with a modal displaying this Verify Your Address form:

The screenshot shows a modal titled "Verify Your Address" with a close button (X) in the top right corner. Below the title, a message states: "To ensure accurate delivery, we suggest the changes highlighted below. Please choose which address you would like to use. If neither option is correct, [edit your address](#)." There are two radio button options: "Suggested Address" (selected) and "Original Address". The "Suggested Address" shows "Veronica Costello", "4064 S Lone Pine Ave", "Springfield, Missouri", and the ZIP code "65804-6605" highlighted in green. The "Original Address" shows "Veronica Costello", "4064 S Lone Pine Ave", "Springfield, Missouri", and "65804". At the bottom right of the modal are two buttons: "Edit Address" and "Save Address". The background shows the "Edit Address" page with fields for "My Product Reviews", "Reward Points", "Fax", and "State/Province" (set to Missouri).

If the customer clicks the x icon, the edit your address link, or the Edit Address button, the modal will close and the form will not be submitted. If the customer clicks Save Address with the suggested address selected, the fields which are highlighted will be updated in the form and the form will be submitted.

Otherwise, the original address will be submitted without any modifications to the form fields. If the config field Allow User To Choose Original (Invalid) Address is set to No, and the customer clicks save address, the valid address will be submitted. If the API response returns an error, that error will be displayed to the customer just as it is in the checkout. The customer will then have the option of either editing their address or saving it. If the address is not located inside one of the enabled countries or is already valid, nothing will be displayed to the user and the form will be submitted normally.

BACKEND ADD/EDIT CUSTOMER ADDRESS

Address validation in this area is triggered by clicking the Validate Address button at the bottom of an address form:

Veronica Costello

4064 S Lone Pine Ave

Springfield, Missouri, 65804-6605

United States

T: 1234567890

☐ Default Billing Address

☐ Default Shipping Address

Veronica Costello

6146 Honey Bluff Parkway

Calder, Michigan, 49628

United States

T: (555) 229-3326

☐ Default Billing Address

☐ Default Shipping Address

VAT number

Validate Address

To ensure accurate delivery, we suggest the changes highlighted below. Please choose which address you would like to use. If neither option is correct, [edit your address](#).

☒ **Suggested Address**

Veronica Costello
4064 S Lone Pine Ave
Springfield, Missouri 65804-6605

☐ **Original Address**

Veronica Costello
4064 S Lone Pine Ave
Springfield, Missouri 65804

Add New Addresses

If the address is already valid, a success message will appear displaying the message "This address is already valid". If the address is not from one of the enabled countries, an error message will appear displaying the message "Address validation is not enabled for the country you selected". After the address has been validated, the suggested address will automatically be selected and the form will be updated. Selecting either address will update the form with that address. Clicking the edit your address link will scroll to the top of the page.

If the address is unable to be validated (see screenshot below), a message will be displayed indicating the reason why the validation failed (e.g. "An exact street name match could not be found" or "The address number is out of range"). The customer address can be revised by clicking the provided link; saving the customer record at this point will save the address as entered.

Validate Address

We were unable to validate your address.

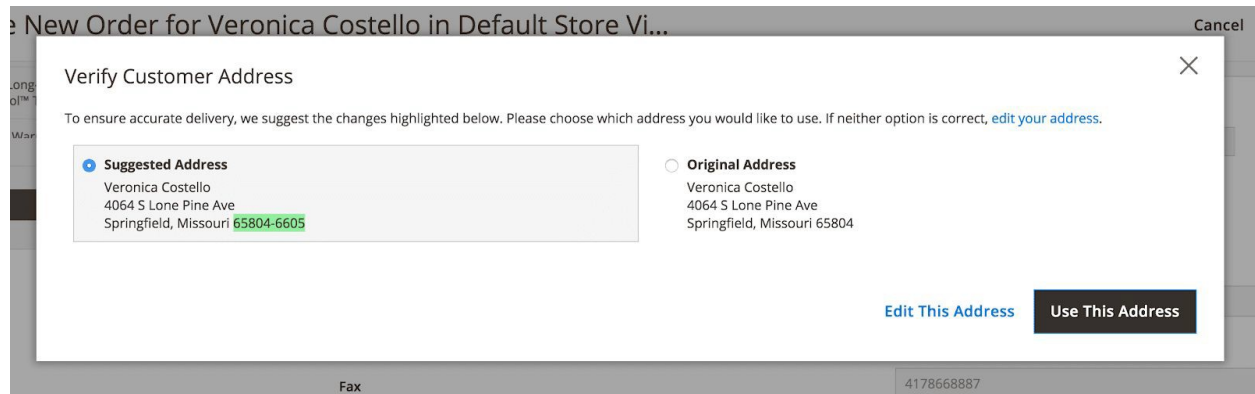
An exact street name match could not be found

If the address below is correct then you don't need to do anything.
To change your address, [click here](#).

Veronica Costello
123 Fake Street
Calder, 49628-7978

BACKEND ORDER CREATION

Address validation in this area is also triggered by clicking the Validate Address button of the bottom of the Billing or Shipping Address forms. If Same As Billing Address is checked, the Validate Address button will not exist below the Shipping Address form. After the Validate Address button is clicked, a modal will appear displaying the same form that is displayed in the frontend add/edit customer address area:



The screenshot shows a modal window titled "Verify Customer Address" with a close button (X) in the top right corner. The modal contains the following text: "To ensure accurate delivery, we suggest the changes highlighted below. Please choose which address you would like to use. If neither option is correct, [edit your address](#)." Below this text are two address options:

- Suggested Address** (selected with a blue radio button):
Veronica Costello
4064 S Lone Pine Ave
Springfield, Missouri 65804-6605 (the ZIP code is highlighted in green)
- Original Address** (unselected with a grey radio button):
Veronica Costello
4064 S Lone Pine Ave
Springfield, Missouri 65804

At the bottom right of the modal are two buttons: "Edit This Address" (blue text) and "Use This Address" (black button with white text). The modal is overlaid on a background window titled "New Order for Veronica Costello in Default Store Vi...". At the bottom of the background window, there is a "Fax" label and a text field containing "4178668887".

If the address is already valid, a success message will appear displaying the message "This address is already valid". If the address is not from one of the enabled countries, an error message will appear displaying the message "Address validation is not enabled for the country you selected".

CAVEATS

If an admin is editing an existing order and they edit the Shipping Address or Billing Address, form validation is not available. This use case is not supported by this extension.

CROSS-BORDER

- [Overview](#)
- [Requirements](#)
- [Setup](#)
- [Configure target countries](#)
- [Classify product catalog](#)
- [Enabling Cross Border in Magento for AvaTax](#)
- [Shipping Method Mapping](#)
- [Checkout experience](#)
- [Cross-border reporting](#)
- [Frequently asked questions](#)
- [Troubleshooting](#)

OVERVIEW

Important Note: This extension's support for this Avalara feature requires version 2.1.8 of the extension. If you're already using the Magento AvaTax extension make sure you're running 2.1.8 or higher. You can see what version you're running by logging into your Magento instance Stores > Settings > Configuration > Sales > Tax > AvaTax -General > AvaTax Extension Version.

Heads up! Cross-border must be enabled on your account by Avalara before you can use this feature! Please [contact Avalara](#) to set up cross-border.

[Cross-Border by Avalara](#) helps merchants that sell internationally calculate the Duty and Import Tax assessed at the border for their shipped products and process payment for those fees at checkout. This lets you reduce customs delay and remove unexpected fees, ensuring an optimal experience for international purchases as they pay all fees at checkout and receive their shipments on time as expected.

In this guide, we'll walk through how to setup Cross-Border by Avalara so it can be used with Magento 2 and AvaTax.

This AvaTax connector for Magento provides a set of features to support Customs Duty and Import Tax to display CDIT tax summaries in Emails, Checkout, and Admin Orders/Invoices/Credit Memos

REQUIREMENTS

- AvaTax for Magento 2 version 2.1.8 or higher
- Install and configure the integration using Composer by following [Getting Started](#).
- A service entitlement enabled for your Avalara account; [contact Avalara to get this setup](#)
- You **must enter prices exclusive of tax**

SETUP

here is three key tasks to setup:

- Configuring target countries to identify the countries where you collect and sell to in AvaTax
- Classifying your product catalog so that Avalara knows your Magento product IDs and the harmonized system / tariff codes (HS codes) for those products and any applicable [Avalara Tax Codes](#)
- Enabling Cross Border in Magento for AvaTax

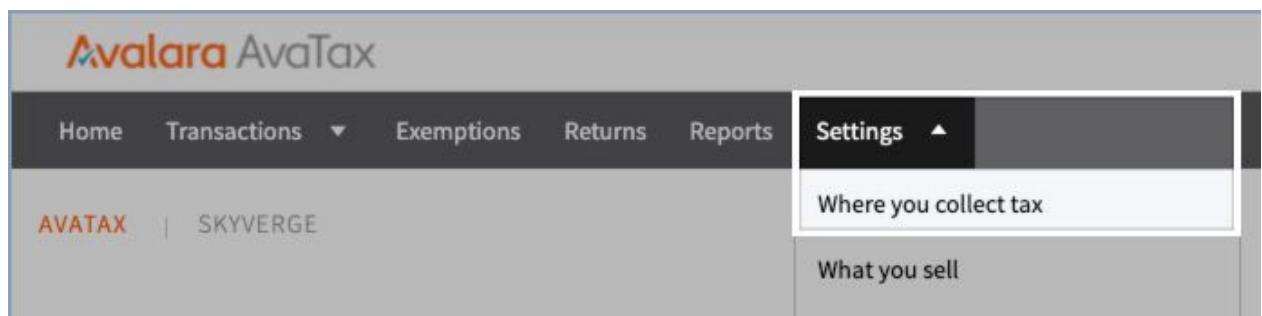
CONFIGURE TARGET COUNTRIES

First, you'll need to setup the countries that you want to sell to in your Avalara account. You'll need to provide some information in Avalara about your status in these jurisdictions, such as:

- Do you have a permanent establishment in this jurisdiction?
- When shipping to this jurisdiction, who is the importer of record?
- Are you shipping using a Delivery Duty Paid (DDP) or Delivery at Place (DAP) service?

Follow the steps below to configure target countries:

a. Login to your Avalara account and go to **Settings > Where you collect tax**



b. Select the **Customs duty** tab, then click **Add a country where you want to collect customs duty**.



c. Select one or more countries to add and click **Add selected countries**.

Avalara AvaTax

Home Transactions Exemptions Returns Reports Settings

WHERE YOU COLLECT TAX | SKYVERGE

Add countries where you collect customs duty

245 countries already set up to collect customs duty

☒ Aland Islands ☐ Isle of Man

Add selected countries Cancel

d. Find the newly-added country in the Nexus list and click **Details**

Where you collect tax

These are the regions where you're responsible for collecting and remitting taxes, or where you have cross-border sales. View, add, remove, and edit regions according to where you do business.

Sales and use tax 59 VAT / GST 2 **Customs duty 246**

+ Add a country where you calculate customs duty | Export where you calculate customs duty

SEARCH
Country or Tax ID

Other countries

246 authorities

COUNTRY	EFFECTIVE	EXPIRATION	
Afghanistan	06/01/2015		<input type="button" value="Details"/>
A tax ID is needed to file tax returns Add a tax ID for Afghanistan			
Aland Islands	03/01/2020		<input type="button" value="Details"/>
A tax ID is needed to file tax returns Add a tax ID for Aland Islands			
Albania	08/01/2012		<input type="button" value="Details"/>

e. Update the country's detail page as needed and click **Save**.

Note:

If you intend to collect all costs from your customers, select the **This company is the importer of record** setting.

WHERE YOU COLLECT TAX | SKYVERGE

Aland Islands

TAX ID

☒ This is a permanent establishment A permanent establishment may collect a different rate of VAT / GST

☐ This company is the importer of record
As the seller, you aren't responsible for any import duties and taxes. When left unchecked, duties and taxes are not included in transactions, delivered at place shipping is assumed, and the buyer is expected to pay on delivery.

The importer of record status on transactions is being set by transaction data rather than your settings for Aland Islands. [Open a support case](#) if you want this status to be set by this country setting instead.

Aland Islands collection date range

Customs duty

COUNTRY	EFFECTIVE	EXPIRATION
Aland Islands Country	03/01/2020	

Save

Cancel

Repeat steps 4-5 as needed for each country you've added. Now, go back to **Settings > Where you collect tax** and select the **VAT / GST** tab. Repeat steps 3-5 as needed.

Avalara AvaTax

Home Transactions Exemptions Returns Reports Settings

WHERE YOU COLLECT TAX | SKYVERGE

Where you collect tax

These are the regions where you're responsible for collecting and remitting taxes, or where you have cross-border sales. View, add, remove, and edit regions according to where you do business.

Sales and use tax 59

VAT / GST 2

Customs duty 246

Add a country where you collect VAT / GST

Export where you collect VAT / GST

The importer of record status on transactions is being set by transaction data rather than your country settings. [Open a support case](#) if you want this status to be set by this country setting instead.

CLASSIFY PRODUCT CATALOG

Once your countries are configured, it's time to ensure your product catalog is added to AvaTax with the harmonized tariff codes and classification codes required to get accurate landed cost estimates for your products in Magento.

There are essentially two options for accomplishing this step:

- Send products to Avalara via SFTP or API
- Add products to Avalara manually
- Use Avalara Item Classification: Avalara Item Classification uses AI to automate the process of identifying and mapping your products for shipment to any country and every jurisdiction in the world. [contact Avalara to get this setup](#)

Send products to Avalara via SFTP or API

You can import your products to Avalara with several methods. [Click here for guides on how to send products to Avalara and map their tariff codes.](#)

If you decide to send the products via SFTP, you must provide the products in the Google product feed format. We recommend creating a product export.

- Here are some additional resources to assist with creating the Google product feed:
- You can export your products directly from Magento 2 by going to System > Data Transfer > Export
- [AvaTax guidelines for importing Google product catalogs](#)
 - Please note that while this document recommends using the product SKU for the Google product feed's id field, you **must** use the product ID from Magento instead. This will allow the plugin to find the product in AvaTax based on the AvaTax Item Code
 - [Guide to Google product feed](#) / [Magento product export mapping](#)

Add products to Avalara manually

Alternatively, you can also add products manually by following the steps below:

1. Go to **Settings > What you sell**.
2. Click **Add an item**
3. Update the item page with the following details:
 - Enter the **Item Code**. The **Item Code** should match the **Magento product ID** for this product
 - Enter the **Item Description**. This can be the product's name.
 - Update the **Avalara tax code** field.
 - Under **Harmonized tariff codes**, click **Add or update tariff codes** and populate the **country** and **tariff code** fields
4. Repeat step 4 for every country that you want to sell this product in.
5. Click **Save and get attributes**.
6. Update the product attributes if required.
7. Click **Save**.

Repeat steps 2-7 for every product you need to sell internationally.

Item: 123

ITEM CODE *	DESCRIPTION *
<input type="text" value="123"/>	<input type="text" value="T-Shirt"/>

1 Assign product codes

A product code tells Avalara how this item is classified in various countries, for more accurate tax and customs duty calculation.

AVALARA TAX CODE *

Clothing & related products (Business-To-Customer)

Harmonized tariff codes

Provide tariff codes

This item's tariff code hasn't been classified for 210 ship-to countries. To add missing tariff codes or update existing classifications, click **Add or update tariff codes**.

Add or update tariff codes

COUNTRY *

TARIFF CODE *

×

+ Tariff code

Save and get attributes

When an order is placed on Magento, the plugin will now be able to find the product's based on their AvaTax itemCode and AvaTax can then return the proper rates based on the entered country and tariff codes.

ENABLING CROSS-BORDER IN MAGENTO FOR AVATAX

1. In the Magento admin, go to Stores > Settings > Configuration > Sales > Tax. Click on the **AvaTax - Customs** section.
2. Review each of the options in this section and input the appropriate value. This is [a screenshot of the configuration options](#)
3. CDIT will only work for countries that have AvaTax enabled for them, which is found under AvaTax - General > Taxable Countries

SHIPPING METHOD MAPPING

You can configure what Magento shipping methods map to AvaTax's shipping codes. The AvaTax connector only knows about the core shipping methods. If you use shipping methods from other extensions, you can utilize the Custom Shipping Mode Mappings table by specifying the AvaTax shipping codes and the custom shipping method code used by Magento.

For your convenience, you can also specify a default AvaTax shipping code that will be used if no mapping was found in the aforementioned configuration properties. This can be useful if you typically only ship using one AvaTax mode.

CHECKOUT EXPERIENCE

Once you've completed the setup steps above, Magento AvaTax will automatically present tariffs and duties at checkout.

If you, as the merchant, are the **importer of record**, estimated fees and duties will be added to checkout.

If you are not the **importer of record**, the fees will be estimated.

CROSS-BORDER REPORTING

Assuming you are logging transactions to AvaTax you can download a report on your cross-border transactions, login to Avalara, go to **Reports > Transaction** reports, and select "**Cross border reports**" from the **Report Category** drop-down menu. You can select other filters / limits as desired, and then click **Generate and download report** to create the report.

Avalara AvaTax

Home Transactions Exemptions Returns Reports Settings

REPORTS | SKYVERGE

Reports

Report data includes transactions up to 03:00 PM today (EDT)

Favorites Transaction reports Liability & tax return reports Exemption reports

Select a report

REPORT CATEGORY: Cross border reports

REPORT NAME: Duty and tax data export report

DESCRIPTION: Shows totals for the transactions you've entered in AvaTax

FREQUENTLY ASKED QUESTION

Q: Why can't I enter product prices inclusive of tax?

A: Avalara's API does not yet support calculating tax from an inclusive price, so this isn't possible right now in the plugin. We'll continue to monitor this so we can support it in the plugin once possible in the API.

Q: I don't see cross-border fees at checkout like I expect. What might be wrong?

A: It sounds like you may not be listed as the importer of record or your SKU getting passed to AvaTax is not matching or not mapped to the appropriate HS Code. Please ensure that the This company is the importer of record setting is enabled in Avalara for the country in question.

Make sure you have the correct ItemCode setup in AvaTax to match the itemCode getting passed to AvaTax from Magento.

Make sure your items in AvaTax have the appropriate HS Code assigned for the country your shipping into.

TROUBLESHOOTING

Having trouble? Please check these steps before posting a support request:

- Check the [documentation](#) to ensure that the plugin is configured properly.
- Please ensure that you meet the requirements for Cross-Border and contact your Avalara representative to ensure they've enabled Cross-Border on your account.
- Check the FAQs to see if they address your question.

TAX EXEMPTION CERTIFICATES

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- [Backend Features Overview](#)
- [CertCapture for eCommerce SDK Back-end Configuration Settings](#)

OVERVIEW

Important Note: This extension's support for this Avalara feature requires version 2.1.8 of the extension. If you're already using the Magento AvaTax extension make sure you're running 2.1.8 or higher. You can see what version you're running by logging into your Magento instance Stores > Settings > Configuration > Sales > Tax > AvaTax -General > AvaTax Extension Version.

Heads up! This feature requires you to have Avalara CertCapture Enterprise before you can use this feature! Please [contact Avalara](#) to set up.

- This AvaTax connector for Magento provides a set of features to support Document Management (also referred to as Tax Exemption Certificates). This feature includes:
- The ability for Seller to review customer certificate status, remove, print, download Exemption Certificates
- The ability for Seller to update customer information and invite customers to fill out Exemption Certificates
- Customers can review certificate status, remove, download and add Exemption Certificates
- Customers can fill out an Exemption Certificate during checkout

When an **Exemption Certificate** is applied to a customer's account; tax is automatically removed from their cart when shipping to that Exemption region, once the certificate is approved.

REQUIREMENTS

- AvaTax for Magento 2 version 2.1.8 or higher
- Install and configure the integration using Composer by following [Getting Started](getting-started.md)
- CertCapture Enterprise and User Access; [contact Avalara to get set up](#)
 - [Get Started using CertCapture](#)
- Single Use Exemption Certificates are NOT supported by default see FAQ below for more details.

SET UP

I. Enable Document Management in Magento

In the Magento admin, go to Stores > Settings > Configuration > Sales > Tax. Click on the **AvaTax - Document Management** section - Enable Document Management set to Yes

II. Connect to your CertCapture Account

Modify the env.php file to Connect to the appropriate CertCapture instance using the eCommerce, API credentials and CertCapture Client ID.

CertCapture for eCommerce Plug-in Credentials

In order to use this feature set in Magento you will need to connect directly to CertCapture with your CertCapture for eCommerce plug-in credentials

- CertCapture for eCommerce Username (CertCapture > Settings > Company Settings > Company Details > eCommerce Settings > Manage eCommerce Account)
- CertCapture for eCommerce Password (CertCapture > Settings > Company Settings > Company Details > eCommerce Settings > Manage eCommerce Account)
- CertCapture Client ID (CertCapture > Settings > Company Settings > Company Details > Company Information > Company ID)

You will input these credentials into Magento installation's app/etc/env.php file. Here is an [example env.php](#) file, showing the cert-capture array added to the file.

You will retrieve the 3 credentials (username, password, and client-id) using these steps:

1. Log into your CertCapture account
2. Set the username and password for the e-commerce Account
 - a. Go to Settings > Company Settings > Company Details > eCommerce Settings and add eCommerce Account.
 - b. The Username and Password you configure will be the ones you enter in the env.php file.
3. To retrieve the client-id, go to "Settings > Company Settings > Company Details" and use the "Company ID" value that is listed on that page as your client-id.
4. Note: If you have multiple CertCapture Companies in your Account you will need to decide which one will be the destination for the certificates created in Magento. The certificates created and loaded through Magento will receive the legal business name of the CertCapture Company chosen in this configuration.

MAGENTO'S ENV.PHP CONFIGURATION UPDATE

The primary difference in the configuration files is the URL pointing to the Sandbox or Production CertCapture environment.

- "sbx-api.certcapture" and "sbx.certcapture"
- "api.certcapture" and "app.certcapture"

Magento Development Configuration (env.php)

```
<?php
return [
    // ...
    'cert-capture' => [
        'url' => 'https://sbx-api.certcapture.com/v2/auth/get-token',
        'sdk-url' => 'https://sbx.certcapture.com/gencert2/js',
        'auth' => [
            'username' => '', // Certcapture username
            'password' => '' // Certcapture password
        ],
        'client-id' => '' // The certcapture client id you will use
    ],
    // ...
];
```

Magento Production Configuration (env.php)

```
<?php
return [
    // ...
    'cert-capture' => [
        'url' => 'https://api.certcapture.com/v2/auth/get-token',
        'sdk-url' => 'https://app.certcapture.com/gencert2/js',
        'auth' => [
            'username' => '', // Certcapture username
            'password' => '' // Certcapture password
        ],
        'client-id' => '' // The certcapture client id you will use
    ],
    // ...
];
```

In the Magento admin (Stores > Settings > Configuration > Sales > Tax > AvaTax - General), there is a setting called Mode that allows an admin to toggle between Development and Production mode. That setting is not respected for CertCapture—you'll need to configure the env.php file differently for each environment if you are using a CertCapture Sandbox environment along with a CertCapture Production environment. Long-term, the Avalara API will be upgraded to support generating tokens for Document Management, and at that point this env.php configuration will no longer be necessary.

III. Review Configuration Settings

Default Magento Configuration

- Checkout Link Text
 - You can configure what text you want to display to a user during checkout to initiate the Document Management workflow. These options include:
 - Add certification when the customer has no certifications (also used for guests)
 - Add certification when the customer has certifications
 - Manage existing certifications
 - Change the Status name of the Certificate
 - You can set the "Approved" status to another way of letting your customer know the certificate is ready for use
 - You can set the "Denied" status to another message like "Pending", "Pending Approval", "Please Contact Us at"

IV. Test Customer Workflow

Default CertCapture Workflow

- Customer Record Creation - 2 methods
 - Direct from Cart
 - If it is the customer's first time providing a certificate through your Magento site their customer record will be created in CertCapture during the certificate creation/upload process. Once their customer record is stored in CertCapture if they return they will not need to re-enter their contact details
 - From Customer Account Page
 - sophia how do you do it this way in M2
- Certificate Validation
 - Certificates created using the Document Management UI will be automatically set to valid and attached to the customer record in CertCapture
 - Certificates uploaded will NOT be automatically validated

FREQUENTLY ASKED QUESTIONS AND RELATED LINKS

[Avalara Help Center - CertCapture FAQ's](#)

Why don't single-use Exemption Certificates work?

A. Currently, the integration has no default support for passing a PurchaseOrder value. With other 3rd party plugin's with Purchase Order number support; your System Integrator can easily customize the integration by mapping your Purchase Order numbers on calls to AvaTax.

How are Exemption Certificates by the customer identified in AvaTax?

A. The customerCode passed in a request to calculate tax is passed to AvaTax and the customerCode matched with the ShipTo location will determine if a Customer Tax Certificate will apply. You can configure the customerCode in the Magento AvaTax integration by going to Stores > Configuration > Sales > Tax > AvaTax-General > Data Mapping > Customer Code Format. IMPORTANT: Select a value that will uniquely ID your customer.

Why is my tax not getting removed after the certificate is created?

A. This is likely a result of the certificate being in PENDING status, rather than being in APPROVED status (someone hasn't gotten around to validating your certificate yet).

TROUBLESHOOTING

Having trouble? Please check these steps before posting a support request:

- Check the [documentation](#) to ensure that the plugin is configured properly.
- Please ensure that you meet the requirements.
- Check the FAQs to see if they address your question.

FRONTEND FEATURES OVERVIEW

Document Management is supported on the frontend for:

- Allowing customers to view certificates on their account - My Account > Tax Certificates > View Certificate
- Allow customers to delete certificates from their account - My Account > Tax Certificates > Delete Certificate
- Allow customers to add certificates from any supported region - My Account > Tax Certificates > Add Exemption
- Allow customers to add certificates during checkout for their current destination

The screenshot shows a Magento checkout page. On the left, there is a 'Place Order' button and links to 'Add a sales tax new certificate' and 'Manage existing sales tax certificates'. On the right, the 'Order Summary' is displayed, showing the following details:

Order Summary	
Cart Subtotal	\$270.00
Discount	-\$54.00
Shipping Flat Rate - Fixed	\$30.00
Add a sales tax new certificate Manage existing sales tax certificates	
Tax	\$29.52 ▼
Order Total Incl. Tax	\$275.52
Order Total Excl. Tax	\$246.00
6 Item in Cart	▼

Below the order summary, the 'Ship To:' address field is visible, along with a small edit icon.

BACKEND FEATURES OVERVIEW

Document Management is supported on the frontend for:

1. View a customer's certificates - Customers > All Customers > Edit > Tax Certificates > View Certificate
2. Delete a customer's certificates - Customers > All Customers > Edit > Tax Certificates > Delete Certificate
3. Invite a customer to create a certificate from any supported region to a customer's account - Customers > All Customers > Edit > Tax Certificates > Invite a Customer to Add a Certificate
4. Update a customer's information - Customers > All Customers > Edit > Tax Certificates > Update Customer Information at Avalara

CERT CAPTURE FOR ECOMMERCE SDK BACK-END CONFIGURATION SETTINGS

Review the link below for examples of use cases and further configuration options if needed:

- [Install CertCapture for eCommerce](#)

Customizing the configuration settings directly in the code in Magento may lead to unexpected conflicts with CertCapture, AvaTax and other parts of Magento. Make sure you have a qualified Magento developer to make any custom code changes and be sure to test any changes before releasing to your production store.

AUTOMATED TESTS

This extension contains integration tests to verify the extension's functionality. These tests should only need to be run by developers maintaining this extension. Instructions for running tests can be found [here](#).

MAGENTO VERSION SUPPORT

- **Magento 2.4.x**
 - ✓ Community
 - ✓ Enterprise
- **Magento 2.3.x**
 - ✓ Community
 - ✓ Enterprise
- **Magento 2.2.x**
 - ✓ Community
 - ✓ Enterprise
- **Magento 2.1.x**
 - ✓ Community
 - ✓ Enterprise

As of version 1.0.0 of this extension, this extension supports [Magento Enterprise's split database mode](#).

Please be aware that due to the complexity and number of third party checkout solutions this extension is only supported when using Magento's native checkout process.

LICENSE

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