

AVATAX 16 USER GUIDE



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About Avatax 16 extension

Avalara Avatax 16 is well known platform that dynamically delivers instantaneous sales tax decisions based on precise geo-location. Tax can be calculated for almost all countries in the world. You don't need to create or rewrite tracking zones, rates, tax rules. AvaTax continuously updates data, making accurate sales tax calculations available immediately in real time. Avatax 16 extension performs address validation and normalization, looks for taxability determination, uses jurisdiction assignment technology for correct and valid tax calculation.

The main purpose of the extension is to calculate tax with Avalara Avatax 16 Platform. A lot of settings allow to configure extension regarding to specifics of your stores, products, clients.

All Avatax 16 operations and requests are saved as logs in a table so admin can review and use existing information for own and business goals.

Avatax 16 extension is easy installed to Magento platform and can be configured differently for all available stores. If Avatax 16 extension is disabled for any store, tax can be calculated by using other services (for example, Default Magento Rules).

Flow and integration with StoreFront

Every time when tax need to be calculated (on Shopping Cart, Checkout) and record sale (Invoice/Credit Memo) for filing and reporting in Avatax system Avatax 16 extension starts its work.

Calculation is an Avatax request to calculate tax for Order.

Transaction is an Avatax request to record sale (Invoice/Credit Memo) for filing and reporting in Avatax system.

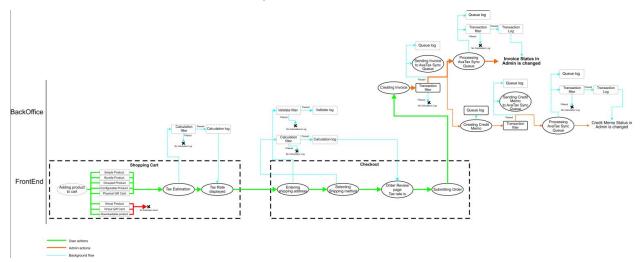
Validate is an Avatax Request to validate and normalize Shipping Address.

Filter is a log that is created to indicate situation when **Validate/Calculation/Transaction** cannot be performed for entered Shipping Address because of admin settings for **Filter Request** (admin is able to select countries and regions which validation and tax calculation should or should not be performed for). If Shipping Address is filtered then **Validate/Calculation/Transaction** is skipped.



Invoices and Credit memo can be transferred to Avalara admin. **Queue** is used for this purpose. So when **Queue** transaction is performed, log **Queue** is created.

See Avatax 16 work flow on diagram bellow.





Installation

Typical Installation Process

- 1. If applicable, disable caching (System > Cache Management) and disable compilation (System > Tools > Compilation)
- 2. Download the extension via Magento Connect
 - Browse to System > Magento Connect > Magento Connect Manager and Log in
 - b. Go to the Settings tab and set Preferred State to "Beta," then click Save Settinas
 - c. Go to the Extensions tab, paste in the Extension Key (magento-community/OnePica AvaTax or http://connect20.magentocommerce.com/community/OnePica AvaTax depending on your Magento version), click Install, and confirm that you are shown a success message.
 - d. Click Refresh to see the package successfully installed
 - e. Click Return to Admin in the upper right
- 3. Flush permissions: Log out of the admin and log back in
- 4. Enable cache, turn compilation back on, and recompile if you were previously using those features

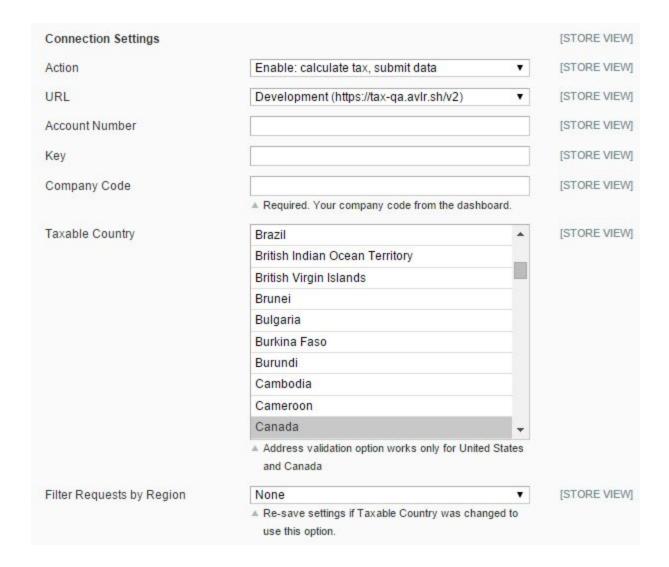
Installation Process for Legacy Versions of Magento Professional & Magento Enterprise

- 1. If applicable, disable caching (System > Cache Management) and disable compilation (System > Tools > Compilation)
- 2. Download the latest version. It can be obtained via Magento Connect, Github or downloaded directly from our website.
- Extract the contents: Confirm the creation of:
 - a. /app/etc/modules/OnePica AvaTax.xml
 - b. /app/code/community/OnePica/AvaTax/
- 4. Enable cache, turn compilation back on, and recompile if you were previously using those features

Connection Settings

To set up Avatax 16 extension go to Admin Panel > System > Configuration > Sales > Tax > Avatax: Connection Settings





To connect Avatax 16 extension you should enter valid credentials:

- ➤ URL: URL of Avalara Service that will provide tax calculation and address validation / normalization options.
- ➤ Account Number: this string is a UUID issued by Avalara to identify the Avalara account that owns the company identified by the Company Code.
- > **Key**: the Authorization is used to identify the actor (person or system) making the request.
- Company Code: identifies the company profile/legal entity with which the Avatax 16 operations are associated



To enable or disable AvaTax please use **Action** setting under **Connection Setting** block:

- ➤ **Disable**: tax will be calculated by default Magento; AvaTax is disabled. Default Magento settings for tax calculation are present.
- ➤ Enable: calculate tax: only tax for Orders is calculated by Avatax. Default Magento settings for tax calculation are not present. Invoices and Credit Memo cannot be sent to Avalara admin, Transaction Requests are not created.
- ➤ Enable: calculate tax, submit data: tax is calculated for Orders; Invoices and Credit Memos can be sent to Avalara Admin console. See more details here.

Each time when admin makes some changes in Avatax 16 settings (not only Connection Settings but settings related to any Avatax 16 option) Ping log is saved to Avatax 16 Log table (Admin Panel > Sales > Tax > Avatax Logs):

- ➤ if all connection settings are valid Avatax 16 extension saves Ping Log with Level "Success":
- ➤ if at least one Connection Parameter is invalid Avatax 16 extension saves Ping Log with Level "Error".

See *Logging* to find more information about Logs.

User is able to configure **Filter Requests by Region** option, go here to see how to do it.



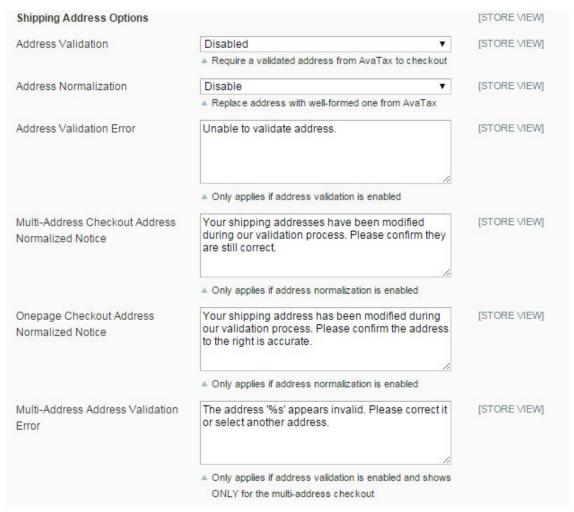
Validation & Normalization

For tax calculation process, **Address Validation** should be performed.

Address Validation is the process that is used to check the validity and deliverability of a physical mailing address. The main purpose of **Validation** is to verify whether address is valid and really exists.

Address Normalization is process of changing address entered by user to full and well-formed.

To configure Validation and Normalization of address go to Admin Panel > System > Configuration > Sales > Tax > Avatax > Shipping Address Options



Admin is able to configure the following Shipping Address Options:



- ➤ Address Validation: This optional step stands for recognition of address before tax calculation. Admin is able to select one of the following values:
 - Disabled: a basic level of validation is performed to verify that AvaTax can calculate tax on the given address
 - Enabled + Allow Order: if non-taxable address is entered tax is not calculated but user is able to continue and place order.
 - Enabled + Prevent Order: the user should enter a valid shipping address on Shopping Cart or Checkout to continue. If non-taxable address is entered, error message is displayed and user is not able to proceed.

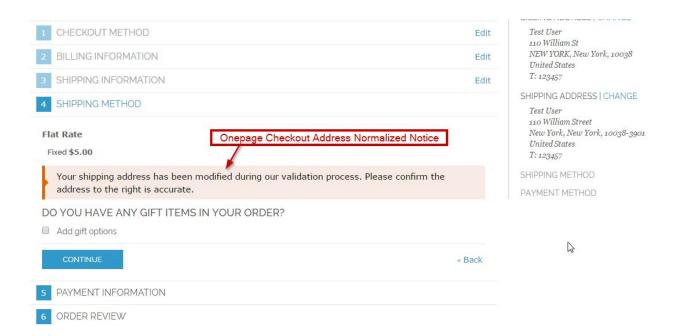
See <u>Error Handling</u> article to set up the most flexible behavior.

- ➤ Address Normalization: this optional step is used to replace address entered by user with a well-formed address provided by AvaTax during checkout. Two values are available:
 - Disabled: normalized address is sent in Response block of Validation but this address is not used on Checkout
 - Enabled: normalized address is used on Checkout instead of address entered by user
- Address Validation Error: message will be shown during checkout if address cannot be validated by Avalara and only if valid error message is not sent in Validate Response. If Validate Response has error message then it will be shown for user instead of error message from Address Validation Error field.

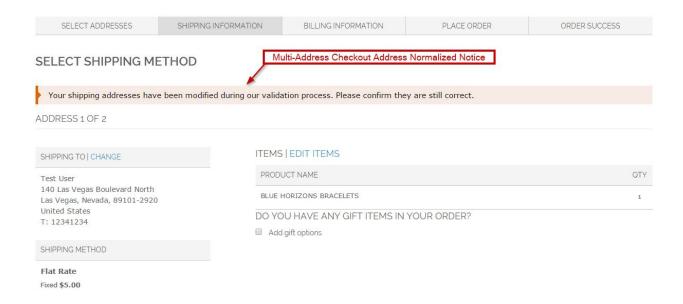




Onepage Checkout Address Normalized Notice: this message is displayed if address has been modified during validation process and is replaced with address entered by user on Onepage Checkout (Address Normalization should be enabled)

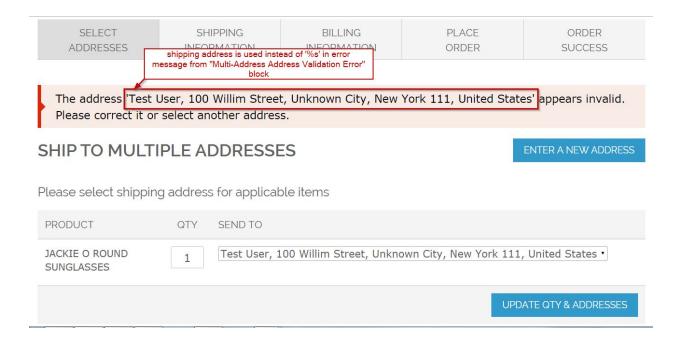


Multi-Address Checkout Address Normalized Notice: applies only if address normalization is enabled. Message is shown if address that has been entered by user on Multiple Checkout is modified and this modified address is used on Checkout





➤ Multi-Address Address Validation Error: applies only if address validation is enabled. Message is shown on Multiple Checkout if address is invalid. You can use '%s' in your error message text; in this case '%s' will be replaced with shipping address.



Pay attention that address can be normalized only when Response block of Validate Request contains **resolutionQuality**: **Rooftop**. If you get any other **resolutionQuality**, it means that address cannot be normalized.

To find more details about Address Validation process go here.

Please note: if user proceeds to Checkout with products that don't needed shipping (virtual or downloadable products, Virtual Gift Card Products), then Validation and Normalization is performed for Billing Address.



Tax Calculations

Avatax 16 extension uses two Request Types for tax calculation:

- > Calculation: process of tax calculation for Order. Calculation Request is sent when user estimates tax in Shopping Cart or places Order.
- Transaction: such request is related to record sale (Invoice/Credit Memo) for filing and reporting in Avatax system (see details in <u>Queue section</u>). When Invoices / Credit Memo is sent from Avatax Order Sync Queue table to Avalara admin, tax need to be calculated. Request **Transaction** is sent for this purpose.

Calculations and **Transactions** Requests are similar and have the same structure. Such Requests include:

- information about user: tax class, buyer type, metadata etc.
- information about transaction: date, transaction type, currency etc.
- information about products: quantity, UPC (or SKU), price, description etc.
- information about shipping: send as new item; shipping costs is sent

Response block of **Calculations** and **Transactions** include detail tax amount for every item and entire Order. Response also contains jurisdiction details, tax types, comments etc

Calculation Details

Calculation Request is sent each time when data needed for tax calculation is changed. But if request for changed data was sent previously, then new **Calculation** request is not sent, but data from previous response is used. It allows to decrease number of Requests.

Example: Shopping Cart

- 1. User adds product to Cart
- 2. Enters Country, State and Zip Code
- Clicks "Estimate"

Result: Calculation Request is sent

- 4. Selects Shipping Method with price that is higher than 0
- 5. Clicks "Update Total"

Result: New Calculation Request is sent

6. Select Shipping Method with price that equals 0



Result: New Calculation Request is not sent because the same request was sent after step #3

So few **Calculation** Requests can be sent during tax estimation in Shopping Cart or Checkout - this is expected behavior.. But Calculation Requests should not be duplicated.

Transaction Details

Transaction Request is sent once when Invoice / Credit Memo is sent to Avalara Admin. Depending on Transaction Response, Invoice / Credit Memo changes status (read more about Queue in <u>Avatax 16 Order Sync Queue</u> article).

Only one **Transaction** Request is sent for one Invoice / Credit Memo per one processing Queue.

Business Identification Number

Business Identification Number (Business Identification No) is also known as VAT Registration ID.

Business Identification No can be sent in Calculation and Transaction Requests if it is specified by user during order placing. Business Identification No is usually provided by customer along with Shipping Address. But if user doesn't specify it in Shipping Address and specifies it in Billing, then Business Identification No is taken from Billing Address. Business Identification No is sent in Calculation and Transaction Requests as defaultTaxPayerCode.

To enable / disable displaying of **Business Identification No** on StoreFront go to *Admin Panel > System > Configuration > Customers > Customer Configuration > Create New Account Options* and set value for the field "Show VAT Number on Frontend".

Tax inclusive and exclusive prices

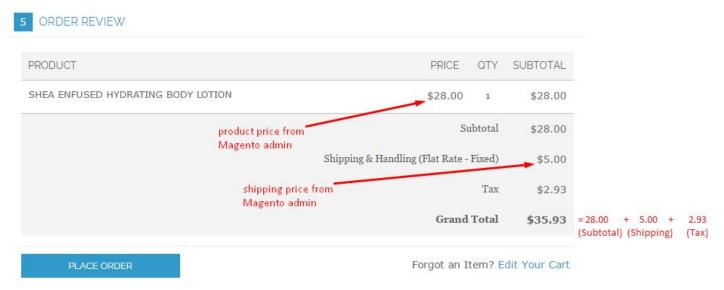
Magento AvaTax extension is able to handle both tax inclusive and exclusive product prices. Behavior is driven by Magento setting under *Admin Panel > System > Configuration > Tax > Calculation Settings > Catalog prices*.



Tax

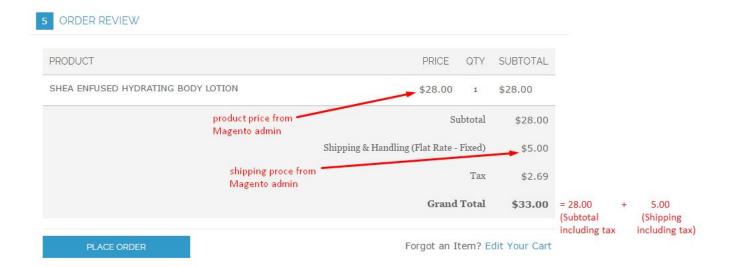
AvaTax				
Tax Classes				
Calculation Settings				
Catalog Prices	Excluding Tax Excluding Tax	•	[WEBSITE]	
	Including Tax			
Default Tax Destination Cal	culation			
Shopping Cart Display Setti	ngs			
Orders, Invoices, Credit Me	mos Display Settings			
Fixed Product Taxes				

Default value of **Excluding Tax** stands for tax calculations based on product prices in Magento admin panel set without any tax, also called net prices. Below is an example of Order review page, as customers see it with **Excluding Tax** setting.



To calculate tax basing on gross price, meaning sale amount and tax being back-calculated from product price, *Catalog prices* should be set as **Including Tax**. Below is example of Order Review page in this case.

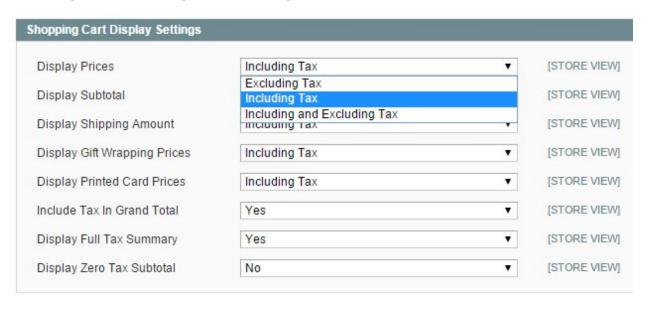




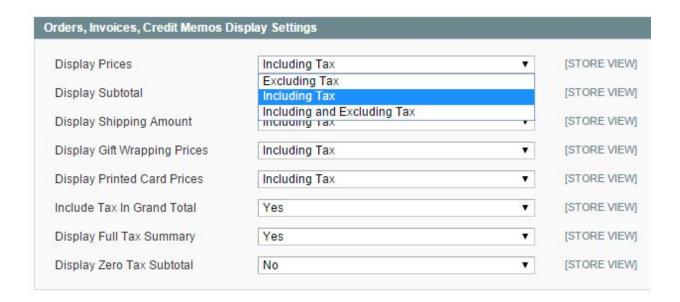
Catalog prices option may be set on Website level.

Magento **Price Display Settings** are hidden and are driven with **Calculation Settings**, meaning that prices on StoreFront catalog (categories, product details pages, etc.) are displayed as they are configured in admin panel, since tax for them is not calculated yet.

In order to provide better user experience, different *Display Settings* are supported for *Shopping Cart* and *Order, Invoices, Credit Memos* views: They can be set as **Including tax**, **Excluding tax** or **Including and Excluding tax**.







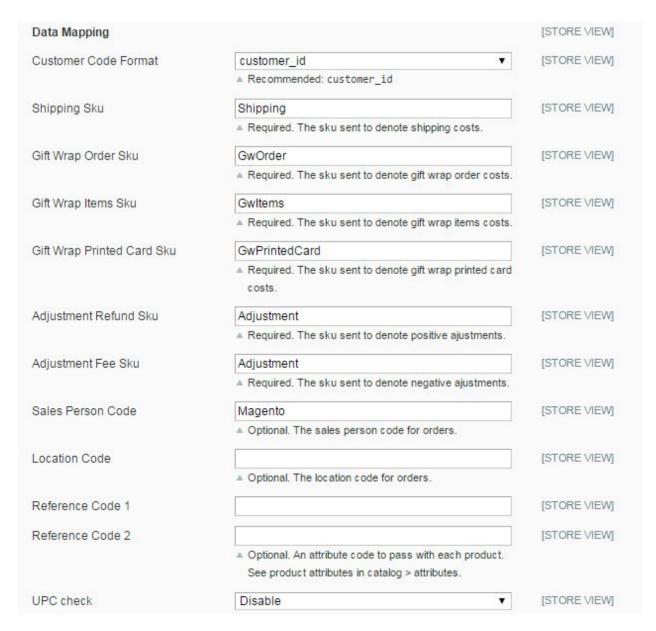
While *Catalog Prices* are set as **Including Tax**, **Apply Customer Tax: Before / After Discount** configuration is available. It controls, whether Calculation requests are sent before or after discounts are applied on prices.

Data Mapping

This is section for configuration additional parameters that are sent in Calculation and Transaction Requests. It impacts tax calculation process.

To configure Data Mapping go to Admin Panel > System > Configuration > Sales > Tax > Avatax > Data Mapping.





Admin is able to configure following parameters:

- > Customer Code Format: it is sent in customerCode line of Request Header. The following values are available for selecting
 - customer_id;
 - customer_email;
 - o customer_name (customer_id).
- > Shipping Sku: entered value is sent in Request to identify Shipping Costs item
- ➤ **Gift Wrap Order Sku**: SKU that is sent to denote gift wrap order costs (Gift Wrapping for Entire Order)



- ➤ **Gift Wrap Items Sku**: SKU that is sent to denote gift wrap items costs (Gift Wrapping for Individual Items)
- > Gift Wrap Printed Card Sku: SKU that is sent to denote gift wrap Printed Card costs
- > Adjustment Refund Sku: SKU that is sent to denote positive adjustments
- > Adjustment Fee Sku: SKU that is sent to denote negative adjustments
- > Sales Person Code: the salesperson code for orders that is sent in Request Header
- ➤ Location Code: the location code for orders; optional field
- ➤ Reference Code 1, Reference Code 2: optional. An attribute code to pass with each product (see product attributes in Catalog > Attributes). Admin should enter valid product attribute to field that is sent in Request for products.
- > **UPC check:** detail information about this option you can find here.

Pay attention that all parameters except UPC check, Reference Code 1 and Reference Code 2 let users fill in a static values. UPC check, Reference Code 1 and Reference Code 2 can be mapped to dynamic fields.

For example, if admin enters *Location Code: 0000* it means that static value "0000" of LocationCode will be sent for all Calculation and Transaction requests. But if admin enters *Reference Code 1: color* it means that specific color of ordered item will be sent in Calculation and Transaction requests. So Reference Code 1 has dynamic value that changes according to item attribute value.

Taxability based on UPC

To manage taxability based on UPC admin is able to configure the following settings in AvaTax Configuration Page (admin panel > System > Configuration > Sales > Tax > AvaTax):

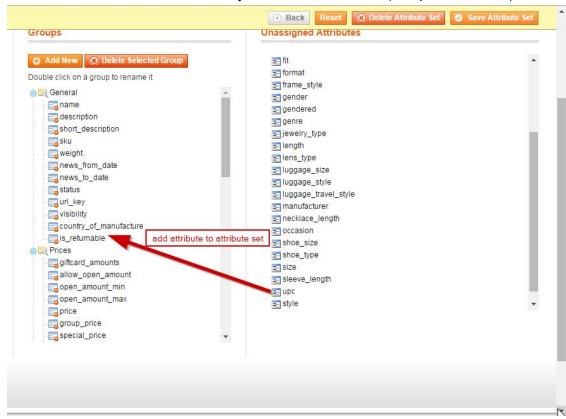
- **UPC check**: this field allows to disable or enable UPC functionality.
 - If "disable" is set, then product SKU will be sent as *ItemCode* in Calculation and Transaction Requests.
 - o if "enable" is set, additional field **UPC attribute code** appears:
 - when **UPC** attribute code is empty, product SKU will be sent as *ItemCode* in Calculation and Transaction Requests.
 - If UPC attribute name is entered as **UPC attribute code**, it means that product UPC will be sent as *ItemCode* in Calculation and Transaction Requests.

To enable UPC functionality admin needs to:

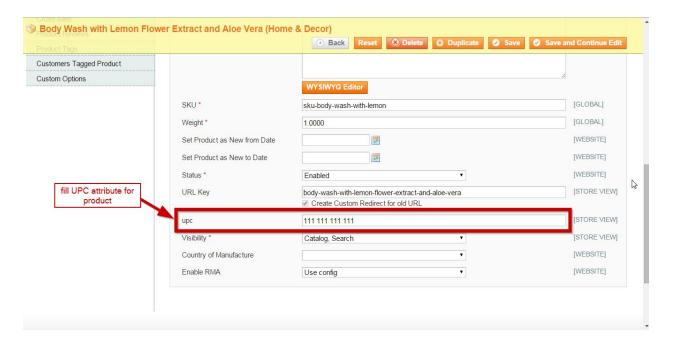
1. Create new product attribute. To do it, go to *Catalog > Attributes > Manage Attributes* and click "Add new Attribute" (it is also possible to use already created attribute).



2. Add UPC attribute to attribute sets. Go to Catalog > Attributes > Manage Attribute Sets. Select Attribute Set and add newly created attribute to it (see picture bellow)



3. Create new product or edit existing one that is based on Attribute Set with added UPC (admin panel > Catalog > Manage Products). Fill UPC attribute for product.





Now if **UPC check** is enabled and **UPC attribute code** is filled with UPC attribute, then UPC value will be sent in Calculation and Transaction Requests as ItemCode.

Please note: UPC is sent as ItemCode only for product that has filled in UPC attribute. If UPC attribute is not filled for product then product SKU will be sent in Calculation and Transaction Requests. Also if you enable **UPC check** and enter **UPC attribute code**, product in Order has empty value for **UPC attribute** the product SKU will be sent in Calculation and Transaction Requests. So it is not possible to sent ItemCode without value; it will be filled in any way.

Taxability based on UPC works regardless of shipping country and is actual for the following cases:

- tax estimation on Shopping Cart (no matter what product types is added to Cart);
- tax calculation on single checkout (for guests and logged in users);
- tax estimation on multiple checkout;
- Transactions for Invoices;
- Transactions for Credit Memos.

Tax Classes

The main purpose of Tax Classes is to configure special rules for tax calculation or exempt customers from tax.

Admin can configure the following Tax Classes:

➤ Customer Tax Classes. To configure it go to Admin Panel > Sales > Tax > Customer Tax Classes, open existing Customer Tax Class or create new one and enter standard Avatax code to the field 'AvaTax Code'.



Valid values for Customer Tax Classes are:

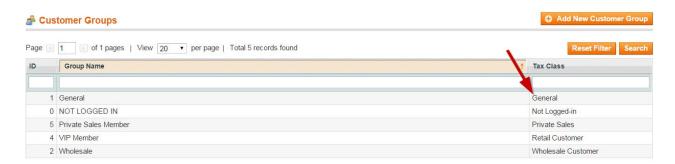
- A Federal Government
- B State/Local Govt.
- C Tribal Government



- D Foreign Diplomat
- E Charitable Organization
- F Religious/Education
- L Other
- N Local Government
- R Non-resident (Canada)

See AvaTax 16 API documentation to find more information about standard avatax codes.

Pay attention that configured Tax Class may be applied to any Customer Group (admin panel > Customers > Customer Groups).



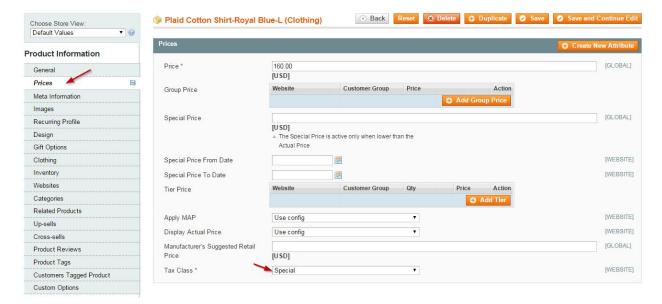
Customer Tax Class Code will be sent as **defaultBuyerType** in Transaction and Calculation Requests.

➤ Products Tax Classes. To configure it go to Admin Panel > Sales > Tax > Product Tax Classes, select any Product Tax Class or create new one and enter standard Avalara code. The list of available codes you can find here.



Then you should apply configured tax class to products: go to *admin panel* > *Catalog* > *Manage Products* select any product (or create new one), open tab *Prices* and select needed tax class for the field *'Tax Class'*.





Product Tax Class Code will be sent as **avalaraGoodsAndServicesType** in Calculation and Transaction Requests.

> Tax Class for Gift Options. To configure it go to admin Panel > System > Configuration > Sales > Tax > Tax Classes > Tax Class for Gift Options and enter any tax class. Tax Class Code will be sent as avalaraGoodsAndServicesType in Calculation and Transaction Requests for Gift Options Items.

Limit tax calculation requests

Magento AvaTax extension allows to limit tax calculation requests.

To configure limitation of tax calculation requests go to Admin Panel > System > Configuration > Sales > Tax > Avatax > Limit tax calculation requests.



Limit tax calculation requests on	Enable	,	
OneStep checkout	Pay Attention. If any custom checkout (like OneStep Checkout) or some modification is used, this may not work properly and is recommended to be disabled.		
Limit tax calculation requests on Multi-Address Checkout	Enable	1	
Disable tax calculation requests	Enable		

This section provides next options:

The first setting limits Calculation requests on OnePage checkout. If this option is enabled, tax will be estimated just before Order Review step and Calculation requests will be reduced from 3 to 1 for default checkout flow.

The second setting has the same behavior and number of Calculation requests in this case will be equal to quantity of addresses used. For example: for 2 addresses used in checkout, Avatax will send only 2 Calculation requests, instead of minimum 5.

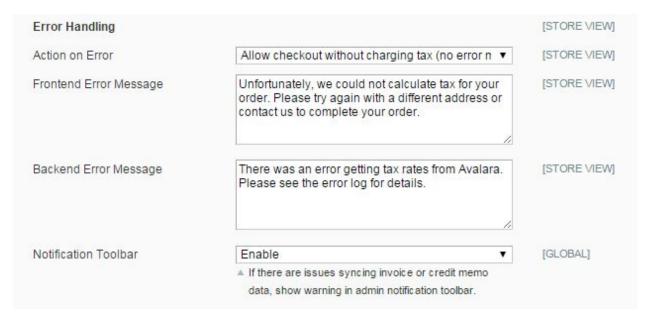
The third setting disables Calculation requests on the next actions ('catalog/category/view', 'customer/account/index')

Error Handling

Error Handling allows to set up system behavior and control error messages in case when tax cannot be calculated. This setting makes sense only when Validation: disabled. If Validation is enabled, then Action on Error is ignored.

To set up Error Handling go to Admin Panel > System > Configuration > Sales > Tax > Avatax: Error Handling.





Admin can configure the following settings:

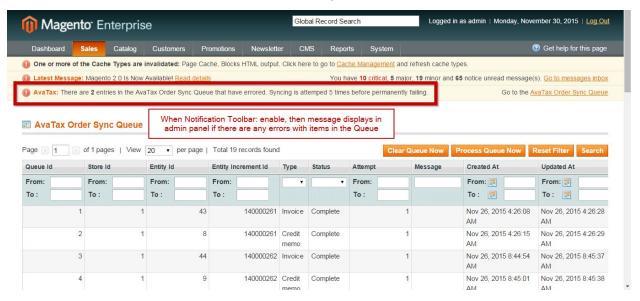
➤ Action on Error: it controls system behavior when tax cannot be calculated. Pay attention that Action on Error has lower priority than Validation and Normalization settings so if you prefer to use Action on Error please disable setting under "Shipping Address Options" block in AvaTax Configuration Page.

Admin is able to select one of two available values for **Action on Error**:

- Disable checkout and show error message. When user enters non taxable Shipping Address, error message is displayed and user is not able to go to the next Checkout Step. In case when Validation is set to "Enable+Allow order" and non-taxable address is provided, user is able to complete the checkout without charging tax. If user calculates tax in Estimation block of Shopping Cart then error message is displayed
- Allow checkout without charging tax (no error message). This setting blocks Validate Request: it is not sent during placing Order. After entering non taxable Shipping Address, user is able to go to the next Checkout Step and place Order. If user calculates tax in Estimation block of Shopping Cart then error message is not displayed and user is able to go to Checkout. Pay attention that if Validation is set to "Enable+Prevent Order" then user will not be able to place Order with non taxable address error message will be shown.
- > Frontend Error Message: this message is displayed on StoreFront (Shopping Cart and Checkout) if tax cannot be calculated



- > Backend Error Message: this message is displayed when admin places an Order and tax cannot be calculated
- ➤ **Notification Toolbar**: this will be displayed on all admin pages if there are any errors with items in the Queue (like admin messages).



You can read more about Queue on Order Sync Queue Page.



Filter Requests

Filter Requests allow to calculate tax and validate address only for some Countries /

States / Provinces. Because of Filter Requests settings it is possible to decrease number of

Reguests to Avalara by filtering Shipping Addresses. If Shipping Address is filtered then Filter

log is displayed instead of Validate, Calculation or Transaction Logs.

Go to Admin Panel > System > Configuration > Sales > Tax > Avatax: Connection

Settings to configure Filter Requests.

Admin is able to configure the following settings:

> Taxable Country: select countries to be taxable

> Filter Requests by Region: this allows admin to select one of the following values:

None: Validation / Normalization and Tax Calculation is performed for all

countries specified under *Taxable Country* field

Filter tax calculations: Tax calculation and reporting only occur for the regions

selected — address validation and normalization still occur for all transactions

o Filter tax calculations & address options: All types of Avatax 16 services

(Validation, Normalization, Tax Calculation) only occur for the regions selected

> Taxable Regions: this field appears only if Filter Requests by Region equals "Filter tax

calculations" or "Filter tax calculations & address options". Taxable Regions allow to

control Avatax 16 Request only for selected regions.

Example #1:

Taxable Country: United States

Filter Requests by Region: None

In this case tax, validation and normalization will be performed for any US states. If user

selects Shipping Address with other country tax, validation and normalization will not be

performed.

Example #2:

Taxable Country: United States

Filter Requests by Region: Filter tax calculations

Taxable Regions: New York



In this case tax is calculated only for New York state of US. Validation and Normalization are performed for all states of US. So if user on StoreFront selects New Jersey state for Shipping, Validation and Normalization are performed, but tax is not calculated. *Filter* log will be displayed instead of Validation Log (Validation Request is not sent).

Example #3:

Taxable Country: United States

Filter Requests by Region: Filter tax calculations & address options

Taxable Regions: New York

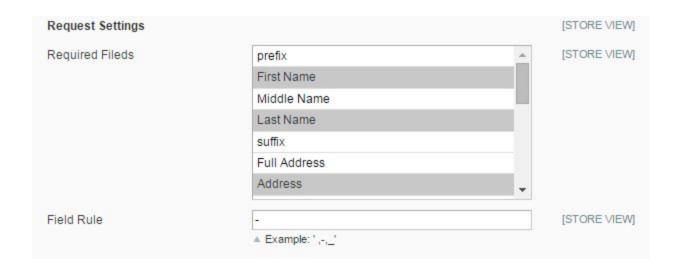
In this case tax, validation and normalization will be performed only for New York state of US. So *Filter* log is displayed instead of Validation, Calculation, Transaction Logs (Requests to Avalara are not sent).

Filter log is not an actual request to Avalara; it is just notice that address was filtered. See <u>Logging</u> to find more information about logs.



Request Settings

Request Settings allow to decrease number Avatax 16 Requests by blocking Avatax 16 Process if StoreFront User tries to enter invalid data that is marked as 'Prohibited' in Admin Panel.



To set up Request Settings go to Admin Panel > System > Configuration > Sales > Tax > Avatax: Request Settings.

You can configure the following settings to activate Request Settings:

- > Required Fields: if some field is selected, it means that value entered to equivalent field of Shipping Address on Checkout should not be empty or should not be equal value from Field Rule. Admin is able to select one or few Required Fields.
- > Field Rule: value for Required Fields. Admin is able to enter one or few values via commas. So user should be able to go to the next Checkout Steps only if Required Field in Shipping Address is not empty and is not equal value from Field Rule.

Please note that entered *Field Rule* values work for all selected *Required Fields* so it is impossible to specify different Rules for different Required Fields.

Request Settings are actual and make sense in case when Validation will be performed for the Shipping Address. If shipping country or region is not selected as taxable and Validation is not performed, then Request Settings Verification is ignored. See <u>Filter Requests</u> to find more information about settings of taxable and non taxable countries.



Example:

Required Fields: Company

Field rule: ',-,_'

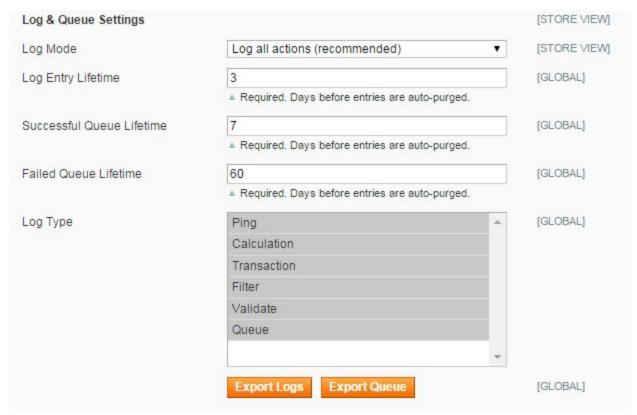
In this case, when user goes to checkout and enters / selects Shipping Address, system verifies "Does the Company field is empty?", "Does the Company field equal ''(space), '-'(dash) or '_' (upper dash)?". If answer for one of these questions is "Yes" then error message displays and user is not able to go to the next Checkout Steps till he / she enters valid value for Company Code. If error message is displayed then Requests for Validation and Tax Calculation are not sent.



Logging

Data logging is used to collect information about any Avatax 16 actions or requests to Avalara. Logs are saved to Avatax 16 Log table (*Admin Panel > Sales > Tax > Avatax Logs*).

To configure Logs go to Admin Panel > System > Configuration > Sales > Tax > Avatax : Log & Queue Settings.



Admin is able to configure the following Logs Settings:

- ➤ **Log Mode:** admin is able to choose what logs should be saved to table. There are three available values:
 - Log only errors: it means that only logs with Level "Error" will be saved.
 Successful entries will be ignored
 - Log all actions (recommended): all Errors and Successful Logs will be saved to Avatax Log table
- Log Entry Lifetime: Records in the Log are automatically deleted after time period specified



> Log Type: only selected log types will be saved to Logs table. Not selected logs Types will be ignored and will not be saved to table.

There are 6 Logs Types:

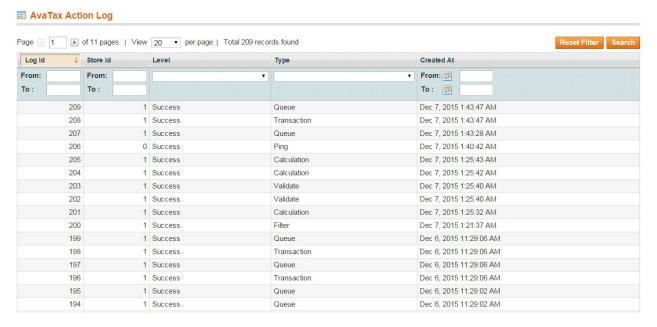
- ➤ **Ping:** it is not Request to Avalara; it is a log that says about Avatax 16 configuration changes. Every time when admin saves Avatax 16 extension changes, log Ping is saved to Logs table. if Avatax 16 is saved with invalid configurations then Level of Ping Log is "Error"; if Avatax 16 is saved with valid configurations, Ping displays with level "Success"
- ➤ Calculation: it is a request to Avalara. Every time when tax for Order needs to be calculated Calculation request is sent and appropriate log is saved to Log table. If tax can be calculated by Avalara and its value is sent in Response, then Calculation Log displays with Level "Success". If tax cannot be calculated and error is sent in Response, Calculation is saved with Level "Error"
- > Transaction: it is request to Avalara. It works similar to Calculation but Transaction Request is related to Invoice and Credit Memo. Transaction is sent when tax for Invoice or Credit Memo needs to be calculated.
- ➤ Validate: it is a request to Avalara to validate and normalize shipping address. Validate request is sent with Shipping Address; normalized Shipping Address is returned in Response. Validate log displays with Level "Success" if Avalara can validate / normalize shipping address; if error message instead of normalized Shipping address is sent in Response then Validate log is saved with level "Error"
- ➤ **Filter**: it is not request to Avalara. It is just log that is displayed when tax or validation / normalization cannot be performed because of **Request Settings**. If Shipping Address is filtered and tax or validation / normalization cannot be performed, log **Filter** displays. Filter log can be displayed with only "Success" Level. See <u>Filter Requests</u> to get more info.
- ➤ Queue: it is a log not Request to Avalara. When Queue log presented in table it means that any operation with Invoice / Credit Memo were performed: adding Invoice / Credit Memo to Avatax Order Sync Queue table; sending Invoice / Credit Memo from Avatax Order Sync Queue table to Avalara admin; deleting Queue entries from table.

Avatax Action Log table consists of the following columns:

- > Log Id: it is the log sequence number
- > Store Id: identification number of store which Avatax 16 operation or request was performed from.



- ➤ Level: it indicates successful or failed logs / requests. If Avatax 16 operation or request is successful then log displays with Level "Success"; if error display in Response and operation is unsuccessful then Log Level is "Error".
- > Type: Avatax 16 operation or request name is displayed (log types were described previously)
- Created At: date when Log / Request is created / send
 To see table with logs go to Admin Panel > Sales > Tax > AvaTax Log.



Any log contains Request, Response and Additional information block.



```
Additional
```

Admin is able to Export Logs table with all existing records in it. To do this go to *Admin*Panel > System > Configuration > Sales > Tax > Avatax > Log & Queue Settings > Export Logs)



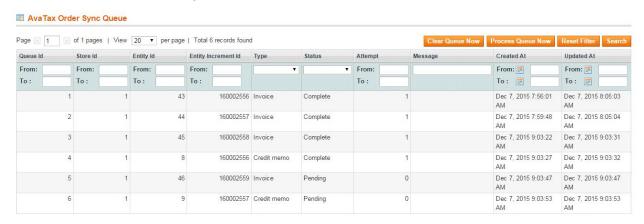
Order Sync Queue

All Orders can be transferred to Avalara admin with the purpose to formulate reports and detailed statistics. To sync with Avalara admin panel, Invoice or/and Credit Memo should be created for Order.

Invoices and Credit Memos that are prepared for sending to Avalara admin are collected into Order Sync Queue table.

To configure TNG Order Sync Queue go to Admin Panel > System > Configuration > Sales > Tax > Avatax > Action: enable: calculate tax, submit data

To see Queue table go to Admin Panel > Sales > Tax > AvaTax Order Sync Queue.



When Action is "enable: calculate tax, submit data" Invoices/Credit Memos are automatically sent to AvaTax Order Sync Queue table after its creation. When Invoices / Credit Memos are presented in Queue table they can be sent to Avalara admin by clicking "Process Queue Now" button on tab "Avatax Order Sync Queue". In this case all data from Avatax Order Sync Queue is delivered to Avalara Admin.

There are 5 different statuses of Orders/Invoices/Credit memos:

- 1. **Pending**: all Invoices / Credit Memos are sent to Order Sync Queue table with statuses "Pending". **Pending** status means that Invoice / Credit Memo is new and it is not present in Avalara Admin.
- 2. **Retry Pending**: when admin tries to send Invoices / Credit Memos to Avalara Admin but attempt is unsuccessful, Invoices / Credit Memos are returned with status "**Retry Pending**". Reasons of unsuccessful attempt:
 - a. order is placed with non taxable address;



- b. AvaTax is saved with invalid Connection Settings;
- c. Invoices / Credit Memos IDs already exist in Avalara admin.

Invoices / Credit Memos can be returned with statuses "Retry Pending" four times. When Retry Pending Queue is sent fifth time and attempt is unsuccessful, then Queue returns with status "Failed".

- 3. **Failed** status means that Invoices / Credit Memos are sent to Avalara Admin fifth time and no one attempt is successful.
- 4. Unbalanced. 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 this happens, items in the queue will change to Unbalanced status and the difference will be recorded. Magento will continue to use the old amount (since that is what you collected from the customer) and the AvaTax dashboard will show the correct amount to be paid to the respective jurisdiction.

Example: To make status of Invoices / Credit Memos **Unbalanced** you should:

- a. place order on StoreFront;
- b. open order as admin (admin panel > Sales > Orders);
- c. change Shipping Address to new one;
- d. create Invoice/Credit Memo for Order;
- e. send Queue to Avalara Admin.
- 5. **Complete**. When Invoice / Credit Memo is successfully sent to AvaTax admin console, it returns with status "Complete".

When Invoice / Credit Memo is created, it is automatically sent to Queue, Log "Queue" creates in Log table (admin panel > Sales > Tax > Avatax Logs). Queue is not a request; it is just log that indicates fact about Queue process.

When Invoice / Credit Memo is sent to Avalara admin, Logs "Queue" and "Transaction" are created in Log table.

To delete Queue with statuses "Complete", "Failed", "Unbalanced" manually, you can click a button "Clear Queue Now". When admin deletes Queue, log "Queue" creates.

Admin is able to set up the following configuration to delete Queue automatically (Admin Panel > System > Configuration > Sales > Tax > Avatax > Log & Queue Settings):

> Successful Queue Lifetime: Successful queue entries (Invoices / Credit Memos with statuses "Complete") are automatically deleted after time specified.



> Failed Queue Lifetime: Invoices / Credit Memos with statuses "Failed" and "Unbalanced" are automatically deleted after time specified.

Admin is able to Export Queue with all existing records in it. To do this go to Admin Panel > System > Configuration > Sales > Tax > Avatax > Log & Queue Settings > Export Queue).



List of hidden and overridden settings

When Avatax is installed and enabled, some default Magento settings are hidden and their behaviour is overridden.

System > Configuration > Sales > Tax > Tax Classes section

• Tax Class for Shipping - Set to Default Avatax shipping code FR020100

System > Configuration > Sales > Tax > Calculation Settings section

- Tax Calculation Method Based On Set to Total
- Tax Calculation Based On Set to Shipping Address
- Shipping Prices Set to Catalog Prices value
- Apply Customer Tax Hidden when Catalog Prices = Exclude Tax and set to After
 Discount
- Apply Discount on Prices Set to Catalog Prices value
- Apply Tax On set to Custom price if available
- Enable Cross Border Trade set to Yes when Catalog Prices = Include Tax and to No when Catalog Prices = Exclude Tax

System > Configuration > Sales > Tax > Price Display Settings section

- Display Product Prices Set to Catalog Prices value
- Display Shipping Prices Set to Catalog Prices value

Sales > Tax

- Manage Tax Rules
- Manage Tax Zones & Rates
- Import / Export Tax Rates

