Using the Yireo TaxRatesManager2 for Magento 2

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On the extension page yireo.com/software/magento-extensions/taxratesmanager2 you can read how to download the TaxRatesManager2 extension and install it into Magento 2. After the extension has been installed using `composer`, enable the extension using the command `bin/magento module:enable Yireo_TaxRatesManager2`. Next, you can start using the TaxRatesManager2 extension using the steps below.

Places to look for this extension

This extension is active in two different places in the Magento 2 Admin Panel:

- Within the **Store Configuration** under **Yireo > TaxRatesManager2**.
- On the page **Stores > Tax Zones & Rates**.

The behaviour of the extension on the **Tax Zones & Rates** page is determined by its settings in the **Store Configuration**. This guide helps you to determine which setting is handy for making what kind of adjustments in the tax rates.

Settings in the System Configuration.

Navigate within the Magento Admin Panel via the main menu to **Stores > Configuration**. Next, in the menu on the left, click on **TaxRatesManager2** in the section **Yireo**. The **Settings** fieldset now displays the following settings:

- **Fix Automatically via Backend** (default value: *No*): This setting allows you to automatically fix any tax rates once the page **Tax Zones & Rates** is visited. The default is *No*, so that you first inspect what could be done for you automatically and can double-check if this is indeed what you want. Next, if you trust the suggestions, you can enable this setting.

- **Fix Automatically via Cron** (default value: *No*): This setting automates things even more. Instead of requiring you to visit the backend, the checks are now performed via cron and any suggestion is automatically applied. This is ideal for making automatic changes to the rules, when a tax change occurs at a time when you are not working. In short: This setting allows the extension to do its real magic. But just as with the previous setting, keep reading this guide and test things first, before enabling this.

- **Send Email** (default: *No*): The extension always works through cron. However, its output is hidden. If you want to be notified of whatever happens, you need to set this setting to *Yes*. We recommend you to enable this setting. When the **Fix Automatically via Cron** setting is disabled, the cronjob still checks whether rules are out-of-date. These warnings can be received by email once the setting **Send Email** is enabled.

- **Email address** (default: Regular store owners email address): You can override the recipient address of the email mentioned above, if somebody else then the store owner needs to be

notified.

- **Feed Source** (default: `tax_rates_eu.csv`): This dropdown shows a list of rates that are offered by Yireo and are hosted in a public GitHub repository github.com/yireo/Magento_EU_Tax_Rates. This field will be discussed intensively below. Make sure to use the main `tax_rates_eu.csv` feed in production. However, while testing, you can load in a different feed source that will be published in the future by us, to preview what changes it will make in your shop. The strategies for this are discussed below.

- **Alternative Feed Source** (default: empty): If you want to maintain your own feed (or possibly use somebody elses), you can enter a full URL here. This setting will override the earlier setting of **Feed Source**.

- **Update Tax Rate name** (default: *No*): The objective of this extension is to detect whether a certain tax rate is still valid. If it is outdated, the extension can be instructed to automatically fix this (see the settings above). An existing rate in your Magento instance is considered to be the same as a rate found in the online feed, if its rate percentage and its country and region details match. There is no match performed on the name. However, sometimes, the names also change. It might be that a certain government applies an existing tax rate to a new product category. Our feed is setup to make sure that the tax rate in your Magento instance also takes over the tax rate of the online feed. Only enable this if you do not want to manage the rate names yourself.

- **Enable cache** (default: *Yes*): When you enable this setting, the feed that is fetched from GitHub is only fetched once, even if you visit the backend repeatedly. This makes sure that the performance of the **Tax Zones & Rates** page doesn't degrade when the connection between your shop and GitHub suffers. Please note that the cache is disabled anyway (regardless of this setting) when the cronjob is run: Otherwise a new change could not be applied automatically at a set time. However, because this is run through cron, it is not expected to have a (large) impact on performance.

Steps to get used to the TaxRatesManager2 extension

We highly recommend you go through the series of steps mentioned below. This allows you to get accustomed to the way that the TaxRatesManager2 extension works and it gives you insurance that nothing is overwritten that should not be overwritten.

Step 1) First visit to Tax Zones & Rates page

Ok, here we go. We recommend you not to make any changes in the settings at first, but simply watch what is happening. The following assumes that none of the default settings have been modified. If you are unsure, check the earier section to double-check if your instance is still using the default values.

Next, navigate to the page **Stores > Tax Zones & Rates**. Please note that the default settings are not to fix anything. However, there could be some notifications already: Warnings in the top of the page, indicating that something is off. Each notification represents an issue that could be fixed automatically.

You must agree with all notifications before you choose to enable automatic fixing! Otherwise, things will be fixed that you did not want to be fixed.

Let's see under which circumstances you could see notifications:

- When you start off with a fresh Magento 2 site, without having created any tax rates yet, there should be a long list of notifications: Each notification should indicate that an online rate found in the feed is not yet configured in your Magento 2 shop. This shows a benefit of our extension: Instead of creating rates manually, or uploading a CSV file, the extension does this automatically for you (once the automatic fixing is enabled).

- It could also state a few tax rates are out of order. It could be that in the past you forgot to add a specific rate for a specific EU country. Or perhaps you made a mistake. Note that you can also reconfigure the **Feed Source** setting to use an alternate feed, in which case, new suggestions come up.

- It could also be that there are zero notifications. In that case, you have done everything correctly already. We suggest that you pick a tax rate randomly and change its percentage temporarily, just to confirm to yourself that the TaxRatesManager2 extension is suggesting the correct percentages.

This first step should have confirmed to you that the TaxRatesManager2 extension is reporting issues in the backend.

Step 2) Enabling cron to receive email notifications

The next thing is to make sure that those issues reported in the backend also reach you via mail. Simply enable the setting **Send Email** for this. The cronjob is run every 10 minutes, so you should be receiving mail within 10 minutes. Please note that our extension is not specific in its cronjob or mail usage. If you are not receiving mails with this step, it might be that you suffer from a more generic issue: Perhaps the system fails to send emails (check the Magento logs and webserver logs), perhaps the mail ends up in a spambox.

This step is just there to ensure that you receive an email whenever the extension is encountering notifications, while run through cron.

Step 3) Fix this automatically in the backend

Review all of the notifications that you have seen in the backend page. If you agree,

Step 4) Let's start playing with a fake feed

Now, let's start playing with a fake feed. Adjust the **Feed Source** setting to use the feed `tax_rates_eu_fake.csv`. It contains a fake Dutch rate of 22% (which is incorrect, it actually is 21%). Also, make sure to disable the **Fix Automatically via Backend** setting, so that we can review what the change will do.

IMPORTANT: DO NOT USE THIS FEED IN PRODUCTION

Next, go back to the tax rates page: You should a notification that tells you that the old rate of 21%

should be fixed into a rate of 22%.

Step 5) Fix it automatically in the backend

If you are sure this environment can be hurt (for instance, because this is a testing environment), you can enable the **Fix Automatically via Backend** setting. Next, go back to the tax rates page and refresh it. The change is automatically applied.

Even more funnily, if you try to modify the Dutch rate back to 21%, as soon as it is saved, it will be reset back to 22% (remember: this is not the correct rate). You are not allowed to make mistakes anymore.

Step 6) Fix it automatically in cron

You are now ready to apply the changes in cron as well. We suggest you disable the **Fix Automatically via Backend** setting again. And then enable the other setting **Fix Automatically via Cron**. You can still use the fake feed.

Just to make sure that in the backend, there are some notifications waiting, showing that there are differences between your rates and the online rates. Make sure you have a proper Magento 2 cron running. And get some coffee. After 10 minutes, the cron should have run and the fix should have been applied.

Background: How we (Yireo) work with the GitHub feeds

Whenever we plan to make changes to the main file `tax_rates_eu.csv` (which can be seen as the main active file for EU Tax Rates), there will be a new file like `tax_rates_eu_2019-01-01.csv` which will replace the file `tax_rates_eu.csv` on the date 2019-01-01. We will manage that change.

In a production environment, the only feed that you will want to use is the file `tax_rates_eu.csv`. The other files are there to play with in testing environments. Also, we aim to be as transparent as we can on which feeds are changed at which points in time. This simple naming mechanism helps us all understand these changes.

Real life tips & tricks

Initializing a new Magento 2 shop

Once the TaxRatesManager2 extension is installed in a new Magento 2 shop, you can use it to create new tax rates by simply enabling the **Automatically Fix via Backend** and **Automatically Fix via Cron** settings. Done.

You need to configure the Tax Rules!

Please note that once the tax rates are created by this extension, you still need to configure them manually into rules: Navigate to **Stores > Tax Rules**. If there are no rules yet (or only US rules), create a **New** rule and make sure to apply the right **Tax Rates**.

Unfortunately, this process is hard to automate, because you are in charge of your own products

and you should find out which specific rate applies to your products.

How to test out a new feed

So, let's say on January 1st of the new year, a new tax rate is applied and you want to get ready for this. To see what will happen, you can adjust the settings to test for this: Disable **Automatically Fix via Backend**, disable **Automatically Fix via Cron**. Now, set the **Feed Source** to the alternative feed (with the date pattern matching when this feed will go live).

Next, go to the tax rates page again and see if you agree with the notifications. If you do, change the settings again so that they are ready for production: Enable **Automatically Fix via Backend**, enable **Automatically Fix via Cron** and change the **Feed Source** back to `tax_rates_eu.csv`. You are done.

New rates are added

It could be that on a specific date, new rates are added: For instance, if a EU country decides to add a completely new tax group. In this case, the new rate is not yet assigned to the **Tax Rules** that you have created manually. This is why it is needed that cron notifications reach the store owner. The same applies with products that are added to tax rate groups: The Magento store owner needs to make sure that the rules stay valid. At least, this extension makes managing the rates peanuts.

Member states that leave the EU or tax rates that disappear are reset to 0%. We will work in future version of the extension on enhancing this, possibly with the automatic removal of such a country or tax rate.

How a rate is matched

When a rate in your shop is found to be different from the rates supplied in the online feed, the extension tries to find the best match for that rate percentage: Take the Dutch rates as an example. Before January 1st 2019, the Dutch tax system applied three rates - a zero rate, a 6% low rate and a 21% high rate. On January 1st 2019, the low rate goes up to 9%. As soon as the Yireo TaxRatesManager2 extension sees that the 6% rate no longer matches any of the online rates, it searches for a possible match in the online rates by comparing the difference in possible changes (the high rate does not change, the zero rate does not change, so it must be the low rate that changes).

When two rates change simultaneously (say: the high rate and the low rate), the extension tries to guess which new rate belongs to which old rate. But it is in exactly these areas that bugs might come to rise. Testing is key. And we strive for perfection here: Anytime when the suggested rate is actually totally wrong, we will publish a new release of this extension and notify you accordingly. Additionally, we will run for test scenarios to perfect the matching mechanism.

Cleaning up existing rules

Our personal advice is to keep all your **Tax Rates** generic at all times. Regardless of how your Magento shop implements rules, the tax rates should always be the same for every shop. It is not the rates that are specific (they are dictated by governments), it is the rules that are shop-specific instead. From this, you can argue that all the rates should be generic at all times. We have seen

shops where mistakes were made. For instance, a Belgium rate that was filled in with a Dutch rate percentage, while actually this kind of logic should have been made in the **Tax Rule** (where you can specify that a Dutch rate should be applied to a Belgium order). In these cases, we recommend cleaning up all rules.

To clean up existing rules, you can use the **Clean Existing Rules** button offered by this extension.

Support

If you bump into notifications that you disagree with, please do let us know. The TaxRatesManager2 extension is aimed to make life easier. And when it does not, it should be improved right away. We are happy to fix any issues that come to rise!

How to send us your tax rates?

Most questions will be concerning existing **Tax Rates** and **Tax Rules** in your shop and the way our extension deals with these. In those cases, it is helpful for us to see your own configuration. For this, you can go to **Stores > Tax Zones and Rates** and use the button **Export** in the top right to create a CSV listing of your own rates, that then can be sent to us via mail.