# **Doofinder for Magento 2**

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### **Overview**

This module provides integration between Magento 2 and the <u>Doofinder</u> search service to enhance the overall search experience in your site.

You can integrate Doofinder at two different levels in your page:

- **Front-end only:** Use this level of integration if you want to provide Doofinder's search layer to your users but you want Magento to manage the search when the user submits the search form. This level requires having your own data file to feed Doofinder with your products information.
- **Complete:** Use this level of integration if you want to provide Doofinder's search layer to your users and / or you want Doofinder to manage search results when the user submits the search form. This level of integration indexes your data directly through Doofinder's REST API and requires a *Management* API key¹ to authenticate requests.

### Support

- For technical support, get in touch from your <u>Doofinder Account</u> or drop us an email at <u>support@doofinder.com</u>.
- If you're a developer, you can file an issue or contribution request in our public code repository at Github: <a href="https://github.com/doofinder/doofinder-magento2">https://github.com/doofinder/doofinder-magento2</a>.

### Pre-requisites

- This module requires Magento 2.1 or greater, due to technical incompatibilities with Magento 2.0.
- Hardware and software requirements are the same as for Magento 2. Check Magento 2 technical requirements for more information.
- This module is heavily based on Cron. Magento 2 requires Cron to properly work, so you must have Cron up and running in your server for the module to work.
- To use the Doofinder module you need an active Doofinder account. Doofinder is a paid service but you can try it 30 days for free and benefit from the *freemium* plan if you have a small store. If you don't have an account yet you can sign up at:

https://www.doofinder.com/signup

Plans and pricing are available at:

https://www.doofinder.com/price

<sup>&</sup>lt;sup>1</sup> There are two kind of API keys: search-only keys and management keys. The latter allow to make changes to your search engines.

### **Installation**

Doofinder can be installed via Component Manager as a *free* purchase done in Magento Marketplace, or via Composer, the *the-facto* PHP package manager, if you feel at home working from the command line directly in your server.

**WARNING:** Do not install this module via FTP or direct upload to your server's filesystem. This module has external software dependencies that Component Manager and Composer know how to deal with. If you try to install the module by any other way than recommended you may experience errors in your system.

### Installation via Magento Marketplace

For up-to-date instructions refer to the official Magento documentation:

- Make a Purchase
- Download the Software
- Install the Extension

Doofinder module is a free purchase so you have to pay nothing to use it. The only cost for you is the price of the Doofinder service once the trial period has ended.

### Installation via Composer

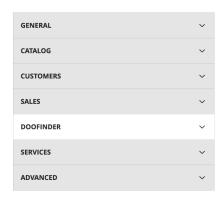
- 1. Log into your Magento 2 server via SSH.
- 2. Go to Magento 2 installation path, for instance:
  - \$ cd /var/www/domains/shop.example.com
- 3. Execute:
  - \$ composer require doofinder/doofinder-magento2
  - \$ php bin/magento setup:upgrade
  - \$ php bin/magento setup:di:compile

**WARNING:** Some versions of the module, specially initial versions, may be in a *beta* stage. That means they include features that may not work in some circumstances. To install them you will have to specify the proper *support stability tag*, @beta in this case.

### Post-Installation

After installing the module, a new "Doofinder" menu should have been added to "Stores > Configuration".

There you will find all the module configuration options.



### **Module Configuration**

Magento 2 can be configured at different levels; you can set up default values and be more specific for each store view. This module makes use of that configuration scheme but not all settings are available at all levels, some will be at the default level and some others will be specific for each store view. You must pay attention so the module is properly configured.

Before configuring the module we should clarify some concepts:

- From Magento's point of view, Doofinder is a search engine. This concept clashes with Doofinder's
  concept of search engine. In Magento 2 the search engine is the system you use for search and
  you can use only one. MySQL is Magento's default search engine but you can use Doofinder
  instead.
- In Doofinder's slang a search engine is a single container where you can put documents you want to search. You can have multiple search engines in the same account, each with a different unique ID which is called a Hash ID. When you set up search in Magento 2 with the Doofinder module, you associate each store view with its own search engine by using different Hash ID values.

Module configuration is structured in three submenus:

- 1. **Configuration:** General configuration of the module, like authentication, search engine identificators or whether to use the Doofinder Layer in the frontend or not.
- 2. **Index Settings:** Configuration about the data being exported.
- 3. **Data Feed (legacy):** Settings to generate a data feed suitable for Doofinder via Cron.

**WARNING:** legacy data feed settings are there as a fallback for those cases in which indexing via API does not work properly.

### **Configuration Flow**

These are the recommended steps to have Doofinder up and running in the shortest time.

#### Sign Up

Create a free account by visiting <a href="https://www.doofinder.com/signup">https://www.doofinder.com/signup</a> in your web browser. Once registered you will automatically enter the next step.

**NOTICE:** If you already have a Doofinder account you can omit this step.

#### Search Engine Creation

If you already have a search engine in your account you can create a new one from the list of search engines by clicking the *New Search Engine* button.

The search engine creation wizard consists of three steps:

#### **Site Information**

In this screen you have to enter:

- A name for your search engine to easily distinguish it from other search engines in your account.
- The homepage web address for your site.

Once available, click the Continue button.

#### **Choose Platform**

In the platform selector choose *I'm going to use the API*. Then choose a language to optimize your search engine contents for searches done in that language.

Once done click the Continue button.

#### **Doofinder Layer Script**

This step is optional at this stage of the installation process. If you want to configure the script now, click the Yes, let's go! button and follow the instructions of the wizard. Otherwise click the Skip this step and finish button.

You will be able to configure the layer later by accessing your search engine and going to Configuration > Installation Scripts > Doofinder Layer.

#### The HashID

The *hashid* is the unique identifier of your search engine in Doofinder. Copy the hashid of the created search engine in a temporary text file, you will need it later.

#### **Additional Search Engines**

If you plan to use Doofinder completely integrated in your Magento you will need a different search engine for each store view. Create as many search engines as store views are in your site and annotate the *hashid* for all of them.

#### **API Key**

For your Magento to talk with Doofinder you need a *Management* API Key. You can create one by clicking on the top-right menu and choosing *API Keys*.

In the API Keys list screen:

- 1. Click on the New API Key button. A dialog will appear.
- 2. Enter a name for your API Key.
- 3. Ensure you check I will use this API Key with the management API.
- 4. Click the Create API Key button.
- 5. Copy the API Key in a temporary text file, you will need it later.

**NOTICE:** In this case you only need one API Key.

### **Module Configuration**

Once you have all hashids and the API Key you can configure the Doofinder module.

It's recommended to start setting proper values in the *Configuration* section, first for the *Default Config* scope (*API Key* and global options), then for each store view (*hashid*, layer script...).

Optionally, you can customize the information being exported in the *Index Settings* section.

**NOTICE:** It's recommended to take some time to configure the module before enabling Doofinder as Magento's search engine.

#### **Enable Doofinder for Internal Search**

The module replaces the default product catalog indexer by a custom indexer which sends product data to the Doofinder servers.

The recommended index mode is *Update On Save*. If your catalog index is configured to *Update By Schedule* it will be automatically changed after the first indexing. This way the index is updated atomically when a change is done in your catalog instead of reindexing everything.

### Configuration

#### Account

### **API Key** Global

If you plan to use Doofinder as your Magento 2 search engine instead of the default (MySQL), or you plan to use only the *Atomic Updates* feature (see *Index Settings* later) you will need an API Key to properly authenticate requests done from your server against Doofinder servers.

**WARNING:** Doofinder offers two different types of API Keys depending on the use. Remember to configure a *Management API Key* so your Magento 2 can perform indexing operations in Doofinder.

**WARNING:** This setting must be configured BEFORE selecting Doofinder as Magento 2 search engine or enabling the *Atomic Updates* feature.

If you don't have an API Key:

- Log into your Doofinder account.
- In the top menu press your account's email to open the menu and go to API Keys.
- Press New API Key.
- Enter a name for your API Key so you know where you're using it and check *I will use this API Key with the management API*.
- Press Create API Key.

### Search Engine

### **Use Doofinder for Internal Search Global**

This is actually a shortcut to configure Doofinder as the Magento 2 search engine. If the link doesn't work you only have to go to Stores > Configuration > Catalog > Catalog and, under Catalog Search uncheck Use System Value for Search Engine and choose Doofinder instead.

**WARNING:** When you choose Doofinder as Magento's search engine the catalog index will require a reindex.

#### Max Requests per Search

Global

Due to the way Magento 2 works, Doofinder must get all results for each search. That can consume too much queries so it's limited to 5 requests per search by default.

#### **Update Products on Save**

Global

Enable this option to send changes to Doofinder whenever you save a product to the database so it's updated as soon as possible for search.

**NOTICE:** You don't need this setting if you're using Doofinder for internal search.

**WARNING:** This setting requires a valid Management API Key.

### Hash ID Store View

This is the unique ID of a search engine in Doofinder. It's a 32-character long string. You can get it from the list of search engines that appears when you access your Doofinder account.

**WARNING:** This setting must be configured BEFORE selecting Doofinder as Magento 2 search engine or enabling the *Atomic Updates* feature.

### **Doofinder Layer**

Doofinder provides some Javascript layers to easily integrate search with any website. You can also use those layers in your Magento 2 website and this section provides a place to paste the necessary Javascript code to make them work.

To generate a layer for your website:

- 1. Log into your Doofinder account.
- 2. Access the search engine you want to configure.
- 3. Go to Configuration > Installation Scripts > Doofinder Layer.
- 4. Press Configure Doofinder Layer.
- 5. Follow the wizard steps.

**WARNING:** Magento 2 uses RequireJS to load Javascript dependencies. When creating your script you must change the type of script. The recommended value to paste the script in this section is RequireJS (HTML script tag, easy).

<b>Enabled</b> Global, Store View	Enable or disable the layer globally or per store view.
Script Store View	This is the place where you have to paste the layer script.

### **Index Settings**

#### **Attributes**

When indexing products in Doofinder, a default attribute set is used. You can customize the attributes being exported globally or per store view.

**NOTICE:** Some *virtual* attributes are available. They're prefixed by *Doofinder:* string and are used to perform calculations so proper values are exported. You can change them and use RAW attributes but it's not recommended.

#### Settings

#### **Export Product Prices**

Global, Store View

Choose whether to export prices or not.

#### **Price Export Mode**

Global, Store View

Choose Auto (default) to export prices the same way as they're displayed in your store. If your store displays prices with and without taxes included you will want to choose an specific mode: With Taxes or Without Taxes.

### **Image Size**

Global. Store View

Export product images at the given width. Leave empty to export at the original size.

**WARNING:** Take into account that, if the images don't exist at the specified size, they will have to be generated, which is a high time and resources consuming process. It is recommended to leave it empty and use the default size of the selected image attribute.

#### **Export only categories present in** navigation menus

Global, Store View

The module exports only active categories. This option will limit them to categories used for navigation purposes.

### Data Feed (legacy)

This mode of indexing data in Doofinder is going to disappear in the near future but it is still available to provide a *fallback* for users that don't want to use Doofinder as Magento 2 search engine. We are working to separate indexing and search as a new feature.

### **Cron Settings**

<b>Enabled</b> Global, Store View	Choose whether to generate a data feed via Cron or not.
Feed Generation Start Time Global, Store View	The time at which the feed generation starts.
<b>Step Delay</b> Global, Store View	The interval (in minutes) between subsequent stages of the feed generation process. It should not be smaller than the frequency of execution of your Cron process.
Step Size Global, Store View	The maximum number of products added to the feed on each iteration of the generation process (maximum recommended value: 1000).
Security Phrase Global, Store View	You can set a secret word to protect your data feed. The name of the generated file will contain the secret word so nobody can guess it from the module defaults.

### **Troubleshooting**

- Q: Wrong URL for images in search results: the URL contains /pub after the site domain name (1st solution).
- **A:** Depending on how your Magento is set up, the cause may be different.

Indexes configured to be updated on save or dynamic feeds (deprecated)

It may be related to the web server configuration. Magento is served from MAGENTO\_ROOT/pub but it will work fine when served from MAGENTO\_ROOT. Unfortunately, when served not from pub directory, there is an issue with some publicly accesible paths (images for instance).

So to correct the photos path issue, you might check your web server configuration, for example in Apache you would replace:

```
<VirtualHost *:80>
ServerName www.homesweethome.gr
DocumentRoot <MAGENTO_ROOT>
</VirtualHost>

by:

<VirtualHost *:80>
ServerName www.homesweethome.gr
DocumentRoot <MAGENTO_ROOT>/pub
</VirtualHost>
```

Indexes configured to be updated by schedule or cron-based feeds

In case you are using a feed generated by cron or atomic updates with update by schedule option, there may be an issue with Magento, not related strictly to the Doofinder module. You may work around this issue by setting Base URL for User Media Files to {{unsecure\_base\_url}} and Secure Base URL for User Media Files to {{secure\_base\_url}}.

The issues that provoke this behavior:

https://github.com/magento/magento2/issues/8868 https://github.com/magento/magento2/issues/9111

# Q: Wrong URL for images in search results: the URL contains /pub after the site domain name (2nd solution).

**A:** Doofinder for Magento 2 only performs a full reindex the first time the internal search is enabled so, if you want to reindex everything yourself instead of changing the server configuration, you can execute this command:

```
env \
   "MAGE_DIRS[base][path]=/var/www/html" \
   "MAGE_DIRS[pub][uri]=" \
   "MAGE_DIRS[media][uri]=media" \
   "MAGE_DIRS[static][uri]=static" \
   "MAGE_DIRS[upload][uri]=media/upload" \
   php bin/magento indexer:reindex catalogsearch_fulltext
```

You will have to replace the /var/www/html by your Magento root folder.

The issues that provoke this behavior:

https://github.com/magento/magento2/issues/8868 https://github.com/magento/magento2/issues/9111

## Q: Right after installing the module, trying to save the module configuration I get an error:

Warning: array\_merge(): Argument #1 is not an array in /var/www/html/ vendor/doofinder-magento2/Helper/Indexer.php on line 63

**A:** Right after the installation of the module, Magento doesn't know about the default settings, which can trigger this error. The solution usually is to clean the cache after installing the module.

You can execute this in the CLL:

```
$ php bin/magento setup:upgrade
$ php bin/magento setup:di:compile
$ php bin/magento cache:flush
```

Or go to System > Cache Management and choose Flush Magento Cache.

#### Q: I have my indexes configured to be updated on save: when will the items be indexed?

**A:** They should be indexed after a while, assuming cron works properly - indexes are revalidated in case of invalidation in cron no matter of index mode.

#### Q: I can't change the Update Products on Save configuration in Index Settings

A: When Doofinder is configured to be Magento's search engine, atomic updates configuration is forced. When your indexed are configured to be updated on save, atomic updates are enabled. When they are configured to be updated by schedule, atomic updates are disabled.

If you don't use Doofinder as Magento's search engine (for instance, you only use the Javascript layers), you can configure atomic updates yourself.

# Q: Some products are being indexed with a wrong link, they point to the *backoffice* instead of the correct frontend store view.

**A:** Unfortunately at the time of writing this, there's a bug in Magento 2 which produces wrong URLs in certain conditions:

https://github.com/magento/magento2/issues/4247

To prevent this, make sure every product has a URL key set.