
django-soapbox Documentation

Release 1.6.1

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This application provides a mechanism for creating and displaying messages – such as announcements or site information – on a [Django](#)-powered site. Messages can be turned on or off, and can be set to display globally or only on a subset of a site's URLs.

1.1 Installation guide

The 1.6.1 release of django-soapbox supports Django 2.2 and 3.0 on the following Python versions:

- Django 2.2 supports Python 3.5, 3.6, 3.7, and 3.8.
- Django 3.0 supports Python 3.6, 3.7, and 3.8.

1.1.1 Normal installation

The preferred method of installing django-soapbox is via *pip*, the standard Python package-installation tool. If you don't have *pip*, instructions are available for [how to obtain and install it](#), though if you're using a supported version of Python, *pip* should have come bundled with your installation of Python.

Once you have *pip*, type:

```
pip install django-soapbox
```

If you don't have a copy of a compatible version of Django, this will also automatically install one for you.

1.1.2 Installing from a source checkout

If you want to work on django-soapbox, you can obtain a source checkout.

The development repository for django-soapbox is at <<https://github.com/ubernostrum/django-soapbox>>. If you have *git* installed, you can obtain a copy of the repository by typing:

```
git clone https://github.com/ubernostrum/django-soapbox.git
```

From there, you can use *git* commands to check out the specific revision you want, and perform an “editable” install (allowing you to change code as you work on it) by typing:

```
pip install -e .
```

1.1.3 Next steps

To learn how to use django-soapbox, see [the usage overview](#).

1.2 Usage overview

The goal of django-soapbox is to provide a way to display persistent messages on either all pages, specific pages, or a subset of pages on a Django-powered site. To begin using django-soapbox, [install it](#), then add *soapbox* to your `INSTALLED_APPS` setting and run `manage.py migrate` to install the `Message` model.

You can then begin creating `Message` instances through the admin interface, indicating which URLs you’d like them to appear on.

1.2.1 Provided models

class soapbox.models.`Message`

The core of django-soapbox is the `Message` model, which represents messages to be displayed on your site. This model has four fields and one important custom method:

message

A `TextField` containing the text of the message to display. This can be plain text, or can include HTML.

is_active

A `BooleanField` (defaults to `True`) indicating whether the message is currently active; only active messages will be retrieved by the standard helpers built in to django-soapbox.

is_global

A `BooleanField` (defaults to `False`) indicating whether the message is global; a global message does not need to have `url` (see below) set, and will match any URL.

url

A `CharField` to optionally indicate the URL(s) on your site with which this message should be associated. Not needed if `is_global` is `True`.

match (*url*)

Return `True` if this `Message` matches *url*, `False` otherwise. If `is_global` is `True`, will always return `True`.

Parameters `url` (*str*) – The URL to check against.

Return type `bool`

class soapbox.models.`MessageManager`

Also provided on `Message` is a custom manager, accessible as the attribute `objects`, which defines two useful methods:

active ()

Returns a `QuerySet` of all `Message` instances which have `is_active` set to `True`. This is defined as a custom `QuerySet` method, so it can also be “chained” with other `QuerySet` methods. For example, the following would retrieve all `Message` instances which are both global and active:

```
Message.objects.filter(is_global=True).active()
```

Return type `QuerySet`

`match(url)`

Return a list – *not* a `QuerySet` – of all `Message` instances which match `url`.

Return type `list`

1.2.2 Validation requirements

While `Message` instances are relatively freeform, there are two requirements you must abide by; failure to do so will result in validation errors being raised when trying to save the `Message`:

1. Each `Message` must either have `is_global` set to `True`, or specify some URL prefix to match in `url`.
2. A `Message` cannot have both `is_global` set to `True` and simultaneously have a URL prefix to match specified in `url` (in other words, a `Message` can be global, or “local” to some URL prefix, but never both at the same time).

1.2.3 Message URL matching

The message-retrieval helpers provided in django-soapbox will only retrieve messages which are active and which match a particular URL you pass to them; typically, this will be the URL of the current request. The matching process is case-sensitive and uses the following algorithm, implemented in the `match()` method of `Message`.

1. If the `Message` has `is_global` set to `True`, immediately return `True`.
2. Strip leading and trailing slashes from the URL, and from the `url` field of the `Message`, and split each on internal slashes to yield a list of path components.
3. If the list of components from the `url` field of the `Message` is longer than the list from the passed-in URL, immediately return `False`.
4. Return `True` if the list of components from the `url` field, and the corresponding list of components from the beginning of the passed-in URL, are equal. Otherwise, return `False`.

This means that a `Message` will match not only a URL which is an exact match for its own `url`, but also any URL of which its `url` is a prefix. So, for example, if the `url` field contained `/foo/`, it would match on `/foo/` and on `/foo/bar/`.

1.2.4 Retrieving and displaying messages

There are two helpers built in to django-soapbox for retrieving and displaying messages in templates.

One is a context processor, which will add a variable `soapbox_messages` to the context of any template rendered with a `RequestContext` (required in order to have access to the request path to determine the URL). To enable it, add `soapbox.context_processors.soapbox_messages` to the context processors enabled on your site. See [the Django template options documentation](#) for notes on how to do this.

If you prefer to have more fine-grained control of where messages will be retrieved and displayed, django-soapbox provides a template tag, `get_soapbox_messages` which can retrieve messages for a given URL and place them into a variable in the context. The syntax of the tag is:

```
{% get_messages_for_page [url] as [varname] %}
```

To use the tag, first add `{% load soapbox %}` to the template to load the django-soapbox template tag library, then call the `get_messages_for_page` tag, passing a URL – either a string, or a template variable which the tag will resolve – and the name of the context variable you’d like the message to be placed into. For example (presuming you have a context processor enabled which exposes the current HTTP request to your template):

```
{% load soapbox %}
{% get_messages_for_page request.path as soapbox_messages %}

{% for message in soapbox_messages %}
    <p>Important message: {{ message }}</p>
{% endfor %}
```

1.2.5 What django-soapbox is not

Importantly, django-soapbox is not a system for displaying one-time “flash”-type notifications to an individual user; for that, use [Django’s built-in message framework](#). It also is not a system for users to send messages to each other; for that, email or a custom user-message tool is more appropriate.

Instead, django-soapbox is for displaying messages to *all* users, on any URLs the messages match, each time they visit those URLs. Most often this is useful for site-wide or section-specific announcements all users need to see.

1.2.6 Security considerations

The tools provided in django-soapbox are designed around the assumption that only trusted administrators of your site will be permitted to create *Message* instances. In particular, a *Message* will, by default, mark its contents as safe for display, and so the Django template system will *not* perform autoescaping of the contents. This is useful for allowing HTML messages – for example, containing links to longer announcements on their own pages – but if opened to arbitrary or untrusted users would be a serious [cross-site scripting vulnerability](#).

Because of this, it is recommended that you only use the Django administrative interface to create *Message* instances, and that you carefully restrict the *soapbox.add_message* permission to only a small number of trusted administrators.

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