
Flask-Menu Documentation

Release 0.2.0

CERN

November 04, 2014

1	Contents	3
1.1	Installation	3
1.2	Usage	3
1.3	Templating	4
1.4	Blueprint Support	5
1.5	API	6
1.6	Changes	7
1.7	Contributing	8
1.8	License	8
2	Authors	11
	Python Module Index	13

Flask-Menu is a Flask extension that adds support for generating menus.

Contents

- Installation
- Usage
- Templating
- Blueprint Support
- API
- Changes
- Contributing
- License

1.1 Installation

Flask-Menu is on PyPI so all you need is:

```
$ pip install Flask-Menu
```

The development version can be downloaded from [its page at GitHub](https://github.com/inveniosoftware/flask-menu).

```
$ git clone https://github.com/inveniosoftware/flask-menu.git
$ cd flask-menu
$ python setup.py develop
$ ./run-tests.sh
```

1.1.1 Requirements

Flask-Menu has the following dependencies:

- Flask
- six

Flask-Menu requires Python version 2.6, 2.7 or 3.3+.

1.2 Usage

This guide assumes that you have successfully installed `Flask-Menu` package already. If not, please follow the *Installation* instructions first.

1.2.1 Simple Example

Here is a simple Flask-Menu usage example:

```
from flask import Flask
from flask import render_template_string
from flask.ext import menu

app = Flask(__name__)
menu.Menu(app=app)

def tpl_show_menu():
    return render_template_string(
        """
        {%- for item in current_menu.children %}
            {% if item.active %}*{% endif %}{{ item.text }}
        {% endfor -%}
        """)

@app.route('/')
@menu.register_menu(app, '.', 'Home')
def index():
    return tpl_show_menu()

@app.route('/first')
@menu.register_menu(app, '.first', 'First', order=0)
def first():
    return tpl_show_menu()

@app.route('/second')
@menu.register_menu(app, '.second', 'Second', order=1)
def second():
    return tpl_show_menu()

if __name__ == '__main__':
    app.run(debug=True)
```

If you save the above as `app.py`, you can run the example application using your Python interpreter:

```
$ python app.py
* Running on http://127.0.0.1:5000/
```

and you can observe generated menu on the example pages:

```
$ firefox http://127.0.0.1:5000/
$ firefox http://127.0.0.1:5000/first
$ firefox http://127.0.0.1:5000/second
```

You should now be able to emulate this example in your own Flask applications. For more information, please read the [Templating](#) guide, the [Blueprint Support](#) guide, and peruse the [API](#).

1.3 Templating

By default, a proxy object to `current_menu` is added to your Jinja2 context as `current_menu` to help you with creating navigation bar. For example:


```

<ul>
{%- for item in current_menu -%}
  <li>
    <a href="{{ item.url }}">{{ item.text }}</a>
    {%- if item.children -%}
      <ul>
        {{ loop(item.children) }}
      </ul>
    {%- endif -%}
  </li>
{%- endfor -%}
</ul>

```

1.4 Blueprint Support

The most import part of an modular Flask application is Blueprint. You can create one for your application somewhere in your code and decorate your view function, like this:

```

from flask import Blueprint
from flask.ext import menu

bp_account = Blueprint('account', __name__, url_prefix='/account')

@bp_account.route('/')
@menu.register_menu(bp_account, '.account', 'Your account')
def index():
    pass

```

Sometimes you want to combine multiple blueprints and organize the navigation to certain hierarchy.

```

from flask import Blueprint
from flask.ext import breadcrumbs

bp_social = Blueprint('social', __name__, url_prefix='/social')

@bp_account.route('/list')
@menu.register_menu(bp_social, '.account.list', 'Social networks')
def list():
    pass

```

As a result of this, your *current_breadcrumbs* object with contain list with 3 items during processing request for */social/list*.

```

>>> from example import app
>>> from flask.ext import menu
>>> import account
>>> import social
>>> app.register_blueprint(account.bp_account)
>>> app.register_blueprint(social.bp_social)
>>> with app.test_client() as c:
...     c.get('/social/list')
...     assert current_menu.submenu('account.list').active
...     current_menu.children

```

1.5 API

If you are looking for information on a specific function, class or method, this part of the documentation is for you.

1.5.1 Flask extension

class flask_menu.Menu (*app=None*)

Flask extension implementation.

init_app (*app*)

Initialize a Flask application.

static root ()

Return a root entry of current application's menu.

class flask_menu.MenuEntryMixin (*name, parent*)

Represent a entry node in the menu tree.

Provides information for displaying links (text, url, visible, active). Navigate the hierarchy using `children()` and `submenu()`.

active

Return True if the menu item is active.

children

Return list of sorted children.

dynamic_list

Return list from dynamic list constructor.

hide ()

Make the entry always hidden.

list_path (*from_path, to_path*)

Return all items on path between two specified entries.

Only if one of them is an ancestor of the other.

Parameters

- **from_path** – The ancestor entry.
- **to_path** – The child entry.

Returns List of entries between those items or None if they are on different branches.

register (*endpoint, text, order=0, endpoint_arguments_constructor=None, dynamic_list_constructor=None, active_when=None, visible_when=None, **kwargs*)

Assign endpoint and display values.

submenu (*path, auto_create=True*)

Return submenu placed at the given path in the hierarchy.

If it does not exist, a new one is created. Return None if path string is invalid.

Parameters

- **path** – Path to submenu as a string 'qua.bua.cua'
- **auto_create** – If True, missing entries will be created to satisfy the given path.

Returns Submenu placed at the given path in the hierarchy.

url

Generate url from given endpoint and optional dynamic arguments.

visible

Return True if the menu item is visible.

1.5.2 Decorators

```
flask_menu.register_menu(app, path, text, order=0, endpoint_arguments_constructor=None, dynamic_list_constructor=None, active_when=None, visible_when=None, **kwargs)
```

Decorate endpoints that should be displayed in a menu.

Example:

```
@register_menu(app, '.', _('Home'))
def index():
    pass
```

Parameters

- **app** – Application or Blueprint which owns the function view.
- **path** – Path to this item in menu hierarchy, for example 'main.category.item'. Path can be an object with custom `__str__` method: it will be converted on first request, therefore you can use `current_app` inside this `__str__` method.
- **text** – Text displayed as link.
- **order** – Index of item among other items in the same menu.
- **endpoint_arguments_constructor** – Function returning dict of arguments passed to `url_for` when creating the link.
- **active_when** – Function returning True when the item should be displayed as active.
- **visible_when** – Function returning True when this item should be displayed.
- **dynamic_list_constructor** – Function returning a list of entries to be displayed by this item. Every object should have 'text' and 'url' properties/dict elements. This property will not be directly affect the menu system, but allows other systems to use it while rendering.
- **kwargs** – Additional arguments will be available as attributes on registered `MenuEntryMixin` instance.

Changed in version 0.2.0: The *kwargs* arguments.

1.5.3 Proxies

```
flask_menu.current_menu
```

Root of a menu item.

1.6 Changes

Version 0.2.0 (released 2014-11-04)

- The Flask-Menu extension is now released under more permissive Revised BSD License. (#12)

- New support for additional keyword arguments stored as *MenuItem* attributes. (#19)
- Richer quick-start usage example. (#16)
- Support for Python 3.4. (#6)
- Documentation improvements. (#3)

Version 0.1.0 (released 2014-06-27)

- Initial public release.

1.7 Contributing

Bug reports, feature requests, and other contributions are welcome. If you find a demonstrable problem that is caused by the code of this library, please:

1. Search for [already reported problems](#).
2. Check if the issue has been fixed or is still reproducible on the latest *master* branch.
3. Create an issue with **a test case**.

If you create a feature branch, you can run the tests to ensure everything is operating correctly:

```
$ ./run-tests.sh
```

1.8 License

Flask-Menu is free software; you can redistribute it and/or modify it under the terms of the Revised BSD License quoted below.

Copyright (C) 2013, 2014 CERN.

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
- Neither the name of the copyright holder nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS “AS IS” AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

In applying this license, CERN does not waive the privileges and immunities granted to it by virtue of its status as an Intergovernmental Organization or submit itself to any jurisdiction.

Authors

Flask-Menu is developed for use in [Invenio](#) digital library software.

Contact us at info@invenio-software.org

- Krzysztof Lis <krzysztof.lis@cern.ch>
- Jiri Kuncar <jiri.kuncar@cern.ch>
- Tibor Simko <tibor.simko@cern.ch>
- Matthew Dillon <mrddillon@alaska.edu>
- Eirini Psallida <eirini.psallida@cern.ch>

f

`flask_menu`, 6

A

active (flask_menu.MenuEntryMixin attribute), 6

C

children (flask_menu.MenuEntryMixin attribute), 6

current_menu (in module flask_menu), 7

D

dynamic_list (flask_menu.MenuEntryMixin attribute), 6

F

flask_menu (module), 6

H

hide() (flask_menu.MenuEntryMixin method), 6

I

init_app() (flask_menu.Menu method), 6

L

list_path() (flask_menu.MenuEntryMixin method), 6

M

Menu (class in flask_menu), 6

MenuEntryMixin (class in flask_menu), 6

R

register() (flask_menu.MenuEntryMixin method), 6

register_menu() (in module flask_menu), 7

root() (flask_menu.Menu static method), 6

S

submenu() (flask_menu.MenuEntryMixin method), 6

U

url (flask_menu.MenuEntryMixin attribute), 6

V

visible (flask_menu.MenuEntryMixin attribute), 7