
django-anysign Documentation

Release 0.1

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django-anysign is a Django application to manage online signature in a generic way.

Its goal is to provide a consistent API whatever the signature implementation. So that, using *django-anysign*, you can easily switch from one signature backend to another, or use several backends at once.

Project status

django-anysign is under active development. The project is not mature yet, but authors already use it! It means that, while API and implementation may change (improve!) a bit, authors do care of the changes.

Also, help is welcome! Feel free to report issues, request features or refactoring!

Resources

- Documentation: <https://django-anysign.readthedocs.org>
- Bugtracker: <https://github.com/novapost/django-anysign/issues>
- Changelog: <https://django-anysign.readthedocs.org/en/latest/about/changelog.html>
- Roadmap: <https://github.com/novapost/django-anysign/milestones>
- Code repository: <https://github.com/novapost/django-anysign>
- Continuous integration: <https://travis-ci.org/novapost/django-anysign>

3.1 Install

django-anysign is open-source software, published under BSD license. See [License](#) for details.

If you want to install a development environment, you should go to [Contributing](#) documentation.

3.1.1 Prerequisites

- [Python](#) ¹ 2.7, 3.3 or 3.4. Other versions may work, but they are not part of the test suite at the moment.

3.1.2 As a library

In most cases, you will use *django-anysign* as a dependency of another project. In such a case, you should add *django-anysign* in your main project's requirements. Typically in `setup.py`:

```
from setuptools import setup

setup(
    install_requires=[
        'django-anysign',
        #...
    ]
    # ...
)
```

Then when you install your main project with your favorite package manager (like [pip](#) ²), *django-anysign* will automatically be installed.

3.1.3 Standalone

You can install *django-anysign* with your favorite Python package manager. As an example with [pip](#) ²:

```
pip install django-anysign
```

¹ <https://www.python.org/>

² <https://pypi.python.org/pypi/pip/>

3.1.4 Check

Check *django-anysign* has been installed:

```
python -c "import django_anysign;print(django_anysign.__version__)"
```

You should get *django_anysign*'s version.

References

3.2 Configure

Here is the list of settings used by *django-anysign*.

3.2.1 INSTALLED_APPS

There is no need to register *django-anysign* application in your Django's `INSTALLED_APPS` setting.

3.2.2 ANYSIGN

The `settings.ANSIGN` is a dictionary that contains all specific configuration for *django-anysign*.

Example from the *Demo project*:

```
ANSIGN = {
    'BACKENDS': {
        'dummysign': 'django_dummysign.backend.DummySignBackend',
    },
    'SIGNATURE_TYPE_MODEL': 'django_anysign_demo.models.SignatureType',
    'SIGNATURE_MODEL': 'django_anysign_demo.models.Signature',
    'SIGNER_MODEL': 'django_anysign_demo.models.Signer',
}
```

BACKENDS

A dictionary where:

- keys are backend codes, i.e. machine-readable names for backends. These keys are typically stored in the database as `django_anysign.models.SignatureType.signature_backend_code`.
- values are Python path to import backend's implementation, typically a class.

See also `get_signature_backend()`.

SIGNATURE_TYPE_MODEL

The Python path to import the *SignatureType* model.

SIGNATURE_MODEL

The Python path to import the *Signature* model.

SIGNER_MODEL

The Python path to import the *Signer* model.

3.3 Models

django-anysign presumes digital signature involves models in the Django project: one to store the signatures, another to store signers, and one to store backend specific options.

That said, *django-anysign* does not embeds concrete models: it provides base models you have to extend in your applications. This design allows you to customize models the way you like, i.e. depending on your use case.

3.3.1 Minimal integration

Here is the minimal integration you need in some `models.py`:

```
import django_anysign

class SignatureType(django_anysign.SignatureType):
    pass

class Signature(django_anysign.SignatureFactory(SignatureType)):
    pass

class Signer(django_anysign.SignerFactory(Signature)):
    pass
```

The example above is taken from *django-anysign*'s *Demo project*.

3.3.2 SignatureType

3.3.3 Signature

Here is what you get in the *Demo project*:

3.3.4 Signer

Here is what you get in the *Demo project*:

3.4 Backends

django-anysign's signature backend encapsulates signature workflow and integration with vendor specific implementation.

Note: The backend API is quite experimental. This document deals with both vision (concepts) and current implementation (which may improve).

3.4.1 Scope of a backend

A signature backend is typically known by models and views. They use the backend to perform vendor-specific operations. The backend contains vendor-specific implementation that has to be shared with several consumers such as models and views.

A signature backend also typically knows the workflows. So it should be helpful for URL resolution.

3.4.2 django-anysign's SignatureBackend

Here is the current implementation of base backend.

3.4.3 django-dummysign's SignatureBackend

Here is the demo signature backend implementation provided by *django-dummysign*.

```
import logging

import django_anysign

logger = logging.getLogger(__name__)

class DummySignBackend(django_anysign.SignatureBackend):
    def __init__(self):
        super(DummySignBackend, self).__init__(
            name='DummySign',
            code='dummysign',
        )

    def create_signature(self, signature):
        """Register ``signature`` in backend, return updated object.

        As a dummy backend: just emit a log.

        """
        signature = super(DummySignBackend, self).create_signature(self)
        logger.debug('[django-dummysign] Signature created in backend')
        return signature
```

3.5 Views

At the moment, *django-anysign* does not provide views or generic views. But this feature is part of the *Vision...*

3.6 Loading

Since *django-anysign* does not provide concrete *Models*, and models are configured in *settings*, here are tools to load models and backends.

3.6.1 get_signature_backend

3.6.2 get_signature_type_model

3.6.3 get_signature_model

3.6.4 get_signer_model

3.7 Demo project

Demo folder in project's repository ³ contains a Django project to illustrate *django-anysign* usage. It basically integrates *django-dummysign* in a project.

Examples in the documentation are imported from the demo project.

Feel free to use the demo project as a sandbox. See *Contributing* for details about development environment setup.

Notes & references

3.8 About django-anysign

This section is about the *django-anysign* project itself.

3.8.1 Vision

django-anysign provides conventions and base resources to implement digital signature features within a Django project.

django-anysign's goal is to provide a consistent API whatever the signature implementation. This concept basically covers the following use cases:

- plug several signature backends and their specific workflows into a single website.
- in a website using a single signature backend, migrate from one backend to another with minimum efforts.
- as a developer, implement bindings for a new signature service vendor.

django-anysign presumes the following items are generally involved in digital signature features:

- models. Such as signature, signer and signature type (backend options).
- workflows. They usually start with the creation of a document to sign (setup a signature, assign signers, choose a backend). They usually end when the document has been signed by all signers. Steps between “start” and “end” typically vary depending on the vendor signature service.
- views. Most signature workflows use similar views, such as “create signature”, “sign document”, “signer processed document” or “API callback”. Of course, the implementation and order vary depending on the vendor signature service. But some bits are generic.

django-anysign does not include vendor-specific implementation. Third-party projects do. And they can be based on *django-anysign*. So as a developer, you are likely to discover *django-anysign* via these vendor-specific projects. See *Alternatives and related projects* for details about third-party projects.

³ <https://github.com/novapost/django-anysign/tree/master/demo/>

django-anysign is a framework. It does not provide all-in-one solutions. You may have to implement some things in your Django project. *django-anysign* tries to make this custom code easier to imagine and write, using conventions, utilities and base classes.

3.8.2 Alternatives and related projects

This document presents other projects that provide similar or complementary functionalities. It focuses on differences or relationships with *django-anysign*.

django-dummysign

*django-dummysign*⁴ provides a dummy backend that implements *django-anysign* API. It is made for tests, prototypes or developments.

Note: At the moment, *django-dummysign* is distributed as part of *django-anysign* itself. When you `pip install django-anysign` you get both `import django_anysign` and `django_dummysign`.

This happened because *django-anysign* and *django-dummysign* are developed together and tests from one require updates from the other, and vice-versa. They may be separated again later, as an example if *django-dummysign* gets additional requirements such as `pyPdf` you do not need in *django-anysign*.

django-docusign

*django-docusign*⁵ provides a backend for *DocuSign*⁶ signature service. It uses *django-anysign* to integrate *pydocusign*⁷ in *Django*.

django-hello_sign

*django-hello_sign*⁸ integrates *hellosign*⁹ in *Django*. It does not use *django-anysign* API.

References

3.8.3 License

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⁴ https://github.com/novapost/django-anysign/tree/master/django_dummysign/

⁵ <https://github.com/novapost/django-docusign/>

⁶ <https://www.docusign.com/>

⁷ <https://github.com/novapost/pydocusign/>

⁸ https://pypi.python.org/pypi/django-hello_sign/

⁹ <https://www.hellosign.com/>

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3.8.4 Authors & contributors

Maintainer: Benoît Bryon <benoit@marmelune.net>, as a member of the [PeopleDoc](#) ¹⁰ team: <https://github.com/novapost/>

Developers: <https://github.com/novapost/pydocusign/graphs/contributors>

Notes & references

3.8.5 Changelog

This document describes changes between each past release. For information about future releases, check [milestones](#) ¹¹ and *Vision*.

0.1 (2014-08-11)

Initial release.

- Introduced base model `SignatureType` and base model factories `SignatureFactory` and `SignerFactory`.
- Introduced base backend class `SignatureBackend`.
- Introduced loaders for custom models and backend: `get_signature_backend_instance`, `get_signature_type_model`, `get_signature_model` and `get_signer_model`.

Notes & references

3.9 Contributing

This document provides guidelines for people who want to contribute to the *django-anysign* project.

¹⁰ <http://www.people-doc.com>

¹¹ <https://github.com/novapost/django-anysign/milestones>

3.9.1 Create tickets

Please use [django-anysign bugtracker](#)¹² **before** starting some work:

- check if the bug or feature request has already been filed. It may have been answered too!
- else create a new ticket.
- if you plan to contribute, tell us, so that we are given an opportunity to give feedback as soon as possible.
- Then, in your commit messages, reference the ticket with some `refs #TICKET-ID` syntax.

3.9.2 Use topic branches

- Work in branches.
- Prefix your branch with the ticket ID corresponding to the issue. As an example, if you are working on ticket #23 which is about contribute documentation, name your branch like `23-contribute-doc`.
- If you work in a development branch and want to refresh it with changes from master, please [rebase](#)¹³ or [merge-based rebase](#)¹⁴, i.e. do not merge master.

3.9.3 Fork, clone

Clone *django-anysign* repository (adapt to use your own fork):

```
git clone git@github.com:novapost/django-anysign.git
cd django-anysign/
```

3.9.4 Usual actions

The *Makefile* is the reference card for usual actions in development environment:

- Install development toolkit with [pip](#)¹⁵: `make develop`.
- Run tests with [tox](#)¹⁶: `make test`.
- Build documentation: `make documentation`. It builds [Sphinx](#)¹⁷ documentation in `var/docs/html/index.html`.
- Release *django-anysign* project with [zest.releaser](#)¹⁸: `make release`.
- Cleanup local repository: `make clean`, `make distclean` and `make maintainer-clean`.

See also `make help`.

Notes & references

¹² <https://github.com/novapost/django-anysign/issues>

¹³ <http://git-scm.com/book/en/Git-Branching-Rebasing>

¹⁴ <http://tech.novapost.fr/psycho-rebasing-en.html>

¹⁵ <https://pypi.python.org/pypi/pip/>

¹⁶ <https://pypi.python.org/pypi/tox/>

¹⁷ <https://pypi.python.org/pypi/Sphinx/>

¹⁸ <https://pypi.python.org/pypi/zest.releaser/>

Indices and tables

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