
django-embed-video Documentation

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1	Installation & Setup	3
1.1	Installation	3
1.2	Setup	3
2	Examples	5
2.1	Template examples	5
2.2	Model examples	6
2.3	Admin mixin examples	6
2.4	Custom backends	6
2.5	Low level API examples	7
3	Example project	9
3.1	Running example project	9
3.2	Testing HTTPS	9
4	Development	11
4.1	Contributing	11
4.2	Testing	11
4.3	Changelog	12
4.4	TODOs list	14
5	Websites using django-embed-video	15
6	Library API	17
6.1	API reference	17
7	Indices and tables	23
	Python Module Index	25

Django app for easy embedding YouTube and Vimeo videos and music from SoundCloud.

Repository is located on GitHub: <https://github.com/yetty/django-embed-video>

Installation & Setup

1.1 Installation

The simplest way is to use `pip` to install package:

```
pip install django-embed-video
```

If you want latest version, you may use `Git`. It is fresh, but unstable.

```
pip install git+https://github.com/yetty/django-embed-video.git
```

1.2 Setup

Add `embed_video` to `INSTALLED_APPS` in your Django settings.

```
INSTALLED_APPS = (  
    ...  
    'embed_video',  
)
```

To detect HTTP/S you must use `request` context processor:

```
TEMPLATE_CONTEXT_PROCESSORS = (  
    ...  
    'django.core.context_processors.request',  
)
```

Examples

2.1 Template examples

First you have to load the `embed_video_tags` template tags in your template:

```
{% load embed_video_tags %}
```

Embedding of video:

```
{# you can just embed #}
{% video item.video 'small' %}

{# or use variables (with embedding, too) #}
{% video item.video as my_video %}
    URL: {{ my_video.url }}
    Thumbnail: {{ my_video.thumbnail }}
    Backend: {{ my_video.backend }}
    {% video my_video 'small' %}
{% endvideo %}
```

Default sizes are `tiny` (420x315), `small` (480x360), `medium` (640x480), `large` (960x720) and `huge` (1280x960). You can set your own size:

```
{% video my_video '800x600' %}
```

This usage has been added in version 0.7.

And use relative percentual size:

```
{% video my_video '100% x 50%' %}
```

It is possible to set backend options via parameters in template tag. It is useful for example to enforce HTTPS protocol or set different query appended to url.

```
{% video my_video query="rel=0&wmode=transparent" is_secure=True as my_video %}
    {{ my_video.url }} {# always with https #}
{% endvideo %}
```

Tip: We recommend to use `sorl-thumbnail` to change thumbnail size.

Tip: To speed up your pages, consider `template fragment caching`.

Tip: You can overwrite default template of embed code located in `templates/embed_video/embed_code.html` or set own file for custom backend (`template_name`). `template_name` has been added in version 0.9.

2.2 Model examples

Using the `EmbedVideoField` provides you validation of URLs.

```
from django.db import models
from embed_video.fields import EmbedVideoField

class Item(models.Model):
    video = EmbedVideoField() # same like models.URLField()
```

2.3 Admin mixin examples

Use `AdminVideoMixin` in `admin.py`.

```
from django.contrib import admin
from embed_video.admin import AdminVideoMixin
from .models import MyModel

class MyModelAdmin(AdminVideoMixin, admin.ModelAdmin):
    pass

admin.site.register(MyModel, MyModelAdmin)
```

2.4 Custom backends

If you have specific needs and default backends don't suits you, you can write your custom backend.

`my_project/my_app/backends.py`:

```
from embed_video.backends import VideoBackend

class CustomBackend(VideoBackend):
    re_detect = re.compile(r'http://myvideo\.com/[0-9]+')
    re_code = re.compile(r'http://myvideo\.com/(?P<code>[0-9]+)')

    allow_https = False
    pattern_url = '{protocol}://play.myvideo.com/c/{code}/'
    pattern_thumbnail_url = '{protocol}://thumb.myvideo.com/c/{code}/'

    template_name = 'embed_video/custombackend_embed_code.html' # added in v0.9
```

You can also overwrite `VideoBackend` methods, if using regular expressions isn't well enough.

`my_project/my_project/settings.py`:

```
EMBED_VIDEO_BACKENDS = (  
    'embed_video.backends.YoutubeBackend',  
    'embed_video.backends.VimeoBackend',  
    'embed_video.backends.SoundCloudBackend',  
    'my_app.backends.CustomBackend',  
)
```

2.5 Low level API examples

You can get instance of *VideoBackend* in your python code thanks to *detect_backend()*:

```
from embed_video.backends import detect_backend  
  
my_video = detect_backend('http://www.youtube.com/watch?v=H4tAOexHdr4')
```

Example project

For easy start with using django-embed-video, you can take a look at example project. It is located in `example_project` directory in root of repository.

3.1 Running example project

1. Install Django and PyYAML:

```
pip install Django
pip install pyyaml
```

2. Create database:

```
python manage.py syncdb --noinput
```

3. Run testing server:

```
python manage.py runserver
```

4. Take a look at <http://localhost:8000> . You can log in to administration with username `admin` and password `admin`.

3.2 Testing HTTPS

To test HTTPS on development server, follow [this instructions](#).

4.1 Contributing

I will be really pleased if you will provide patch to this Django app. Feel free to change whatever, but keep [PEP8](#) rules and [Zen](#).

It is a good habit to cover your patches with [tests](#).

Repository is hosted on Github: <https://github.com/yetty/django-embed-video>

4.2 Testing

4.2.1 Requirements

The library needs Django and `requests` and `nose`, `mock`, `south` and `testfixtures` libraries to run tests.

```
pip install Django
pip install requests
pip install nose
pip install mock
pip install south
pip install testfixtures
```

4.2.2 Running tests

Run tests with this command:

```
nosetests
```

Be sure to run it before each commit and fix broken tests.

Run tests with coverage:

```
pip install coverage
nosetests --with-coverage --cover-package=embed_video
```

4.3 Changelog

4.3.1 Release 1.2.0 (dev)

No changes yet.

4.3.2 Release 1.1.0 (Jan 19, 2016)

- added support for Django 1.9 (#52)
- if possible YouTube thumbnails are returned in better resolution (#43)

4.3.3 Release 1.0.0 (May 01, 2015)

Backward incompatible changes:

- filter `embed_video_tags.embed` has been removed
- changed behaviour of extra params in video tag (#34, #36)

Backward compatible changes:

- added support for Django 1.7 and Django 1.8
- added support for Vimeo channels (#47)
- fix resizing of SoundCloud iframe (#41)

4.3.4 Release 0.11 (July 26, 2014)

- add support for YouTube mobile urls (#27)
- fix passing parameters in calling request library (#28)
- fix validation of urls (#31)

4.3.5 Release 0.10 (May 24, 2014)

- video tag accepts kwargs (#20)
- video tag will not crash anymore with None passed as url (#24)

4.3.6 Release 0.9 (Apr. 04, 2014)

- Add `VideoBackend.template_name` and rendering embed code from file.
- Allow relative sizes in template tag (#19).
- Fix handling invalid urls of SoundCloud. (#21).
- Catch `VideoDoesNotExistException` and `UnknownBackendException` in template tags and admin widget.
- Add base exception `EmbedVideoException`.

4.3.7 Release 0.8 (Feb. 22, 2014)

- Add `EMBED_VIDEO_TIMEOUT` to settings.
- Fix rendering template tag if no url is provided (#18)
- If `EMBED_VIDEO_TIMEOUT` timeout is reached in templates, no exception is raised, error is just logged.
- Fix default size in template tag. (See more...)

4.3.8 Release 0.7 (Dec. 21, 2013)

- Support for sites running on HTTPS
- `embed` filter is deprecated and replaced by `video` filter.
- caching for whole backends was removed and replaced by caching properties
- minor improvements on example project (fixtures, urls)

4.3.9 Release 0.6 (Oct. 04, 2013)

- Ability to overwrite embed code of backend
- Caching backends properties
- PyPy compatibility
- Admin video mixin and video widget

4.3.10 Release 0.5 (Sep. 03, 2013)

- Added Vimeo thumbnails support
- Added caching of results
- Added example project
- Fixed template tag embed
- Fixed raising `UnknownIdException` in YouTube detecting.

4.3.11 Release 0.4 (Aug. 22, 2013)

- Documentation was rewritten and moved to <http://django-embed-video.rtd.org/> .
- Custom backends (<http://django-embed-video.rtd.org/en/latest/examples.html#custom-backends>).
- Improved YouTube and Vimeo regex.
- Support for Python 3.
- Renamed `base` to `backends`.

4.3.12 Release 0.3 (Aug. 20, 2013)

- Security fix: faked urls are treated as invalid. See [this page](#) for more details.
- Fixes:
 - allow of empty video field.
 - requirements in setup.py
- Added simpler way to embed video in one-line template tag:

```
{{ 'http://www.youtube.com/watch?v=guXyvo2FfLs'|embed:'large' }}
```

- backend variable in video template tag.

Usage:

```
{% video item.video as my_video %}  
    Backend: {{ my_video.backend }}  
{% endvideo %}
```

4.3.13 Release 0.2 (June 25, 2013)

- Support of SoundCloud

4.3.14 Release 0.1 (June 1, 2013)

- Initial release

4.4 TODOs list

Todo

Django 1.6 provides better parent for this widget - `django.forms.URLInput`.

(The original entry is located in `/home/docs/checkouts/readthedocs.org/user_builds/django-embed-video/checkouts/v1.1.0/embed_video/admin.py:docstring of embed_video.admin.AdminVideoWidget, line 5.`)

Websites using django-embed-video

- Tchorici.cz
- Tiepoturco.com

Are you using django-embed-video? Send pull request!

6.1 API reference

6.1.1 Admin

class `embed_video.admin.AdminVideoMixin`

Mixin using `AdminVideoWidget` for fields with `EmbedVideoField`.

Usage:

```
from django.contrib import admin
from embed_video.admin import AdminVideoMixin
from .models import MyModel

class MyModelAdmin(AdminVideoMixin, admin.ModelAdmin):
    pass

admin.site.register(MyModel, MyModelAdmin)
```

formfield_for_dbfield (*db_field*, ***kwargs*)

class `embed_video.admin.AdminVideoWidget` (*attrs=None*)

Widget for video input in administration. If empty it works just like `django.forms.TextInput`. Otherwise it renders embedded video together with input field.

Todo

Django 1.6 provides better parent for this widget - `django.forms.URLInput`.

render (*name*, *value=''*, *attrs=None*, *size=(420, 315)*)

6.1.2 Backends

exception `embed_video.backends.EmbedVideoException`

Parental class for all `embed_video` exceptions

class `embed_video.backends.SoundCloudBackend` (*url*)
Backend for SoundCloud URLs.

height

Return type `str`

width

Return type `str`

exception `embed_video.backends.UnknownBackendException`
Exception thrown if video backend is not recognized.

exception `embed_video.backends.UnknownIdException`
Exception thrown if backend is detected, but video ID cannot be parsed.

class `embed_video.backends.VideoBackend` (*url*)
Base class used as parental class for backends.

Backend variables:

<i>url</i>	URL of video.
<i>code</i>	Code of video.
<i>thumbnail</i>	URL of video thumbnail.
<i>query</i>	String transformed to <i>QueryDict</i> appended to url.
<i>info</i>	Additional information about video.
<i>is_secure</i>	Decides if secured protocol (HTTPS) is used.
<i>protocol</i>	Protocol used to generate URL.
<i>template_name</i>	Name of embed code template used by <code>get_embed_code()</code> .

```
class MyBackend(VideoBackend):
    ...
```

allow_https = True
Sets if HTTPS version allowed for specific backend.

Type `bool`

code
Code of video.

default_query = ''
Default query string or *QueryDict* appended to url

Type `str`

get_code ()
Returns video code matched from given url by *re_code*.

Return type `str`

get_embed_code (width, height)
Returns embed code rendered from template *template_name*.

Return type `str`

get_info ()

Return type `dict`

get_thumbnail_url ()
Returns thumbnail URL folded from *pattern_thumbnail_url* and parsed code.

Return type `str`

get_url()

Returns URL folded from `pattern_url` and parsed code.

info

Additional information about video. Not implemented in all backends.

is_secure = False

Decides if secured protocol (HTTPS) is used.

Type `bool`

classmethod is_valid(url)

Class method to control if passed url is valid for current backend. By default it is done by `re_detect` regex.

pattern_thumbnail_url = None

Pattern in which the code is inserted to get thumbnail url.

Example: `http://static.myvideo.com/thumbs/%s`

Type `str`

pattern_url = None

Pattern in which the code is inserted.

Example: `http://myvideo.com?code=%s`

Type `str`

protocol

Protocol used to generate URL.

query

String transformed to QueryDict appended to url.

re_code = None

Compiled regex (`re.compile()`) to search code in URL.

Example: `re.compile(r'myvideo\.com/\?code=(?P<code>\w+)')`

re_detect = None

Compilede regex (`re.compile()`) to detect, if input URL is valid for current backend.

Example: `re.compile(r'^http://myvideo\.com/.*)')`

set_options(options)

template_name = 'embed_video/embed_code.html'

Name of embed code template used by `get_embed_code()`.

Passed template variables: `{{ backend }}` (instance of `VideoBackend`), `{{ width }}`, `{{ height }}`

Type `str`

thumbnail

URL of video thumbnail.

url

URL of video.

exception `embed_video.backends.VideoDoesntExistException`

Exception thrown if video doesn't exist

class `embed_video.backends.VimeoBackend(url)`

Backend for Vimeo URLs.

class `embed_video.backends.YouTubeBackend(url)`

Backend for YouTube URLs.

get_thumbnail_url()

Returns thumbnail URL folded from `pattern_thumbnail_url` and parsed code.

Return type `str`

`embed_video.backends.detect_backend(url)`

Detect the right backend for given URL.

Goes over backends in `settings.EMBED_VIDEO_BACKENDS`, calls `is_valid()` and returns backend instance.

Parameters `url (str)` – URL which is passed to `is_valid` methods of `VideoBackends`.

Returns Returns recognized `VideoBackend`

Return type `VideoBackend`

6.1.3 Fields

class `embed_video.fields.EmbedVideoField(verbose_name=None, name=None, **kwargs)`

Model field for embedded video. Descendant of `django.db.models.URLField`.

class `embed_video.fields.EmbedVideoFormField(max_length=None, min_length=None, strip=True, *args, **kwargs)`

Form field for embedded video. Descendant of `django.forms.URLField`

6.1.4 Settings

EMBED_VIDEO_BACKENDS

List of backends to use.

Default:

```
EMBED_VIDEO_BACKENDS = (
    'embed_video.backends.YouTubeBackend',
    'embed_video.backends.VimeoBackend',
    'embed_video.backends.SoundCloudBackend',
)
```

EMBED_VIDEO_TIMEOUT

Sets timeout for GET requests to remote servers.

Default: 10

EMBED_VIDEO_YOUTUBE_DEFAULT_QUERY

Sets default *query* appended to YouTube url. Can be string or `QueryDict` instance.

Default: "wmode=opaque"

6.1.5 Template tags

You have to load template tag library first.

```
{% load embed_video_tags %}
```

class `embed_video.templatetags.embed_video_tags.VideoNode` (*parser, token*)

Template tag video. It gives access to all *VideoBackend* variables.

Usage (shortcut):

```
{% video URL [SIZE] [key1=value1, key2=value2...] %}
```

Or as a block:

```
{% video URL [SIZE] [key1=value1, key2=value2...] as VAR %}
...
{% endvideo %}
```

Examples:

```
{% video item.video %}
{% video item.video "large" %}
{% video item.video "340x200" %}
{% video item.video "100% x 300" query="rel=0&wmode=opaque" %}

{% video item.video is_secure=True as my_video %}
    URL: {{ my_video.url }}
    Thumbnail: {{ my_video.thumbnail }}
    Backend: {{ my_video.backend }}
{% endvideo %}
```

classmethod `embed` (*url, size, context=None, **options*)

Direct render of embed video.

Parameters

- **url** (*str*) – URL to embed video
- **size** (*str*) – Size of rendered block
- **context** (*django.template.RequestContext* | *None*) – Django template `RequestContext`

static `get_backend` (*backend_or_url, context=None, **options*)

Returns instance of `VideoBackend`. If `context` is passed to the method and request is secure, than the `is_secure` mark is set to backend.

A string or `VideoBackend` instance can be passed to the method.

Parameters

- **backend** – Given instance inherited from `VideoBackend` or url
- **context** (*django.template.RequestContext* | *None*) – Django template `RequestContext`

Return type *VideoBackend*

classmethod `get_size` (*value*)

Predefined sizes:

size	width	height
tiny	420	315
small	480	360
medium	640	480
large	960	720
huge	1280	960

You can also use custom size - in format WIDTHxHEIGHT (eg. 500x400).

Returns Returns tuple with (width, height) values.

Return type tuple[int, int]

render (*context*)

Returns generated HTML.

Parameters `context` (*django.template.RequestContext*) – Django template RequestContext

Returns Rendered HTML with embed video.

Return type django.utils.safestring.SafeText | str

render_block (*context, backend*)

Parameters

- **context** (*django.template.RequestContext*) – Django template RequestContext
- **backend** (*VideoBackend*) – Given instance inherited from VideoBackend

Return type django.utils.safestring.SafeText

resolve_options (*context*)

Parameters `context` (*django.template.RequestContext*) – Django template RequestContext

6.1.6 Utils

`embed_video.utils.import_by_path` (*dotted_path, error_prefix=''*)

Import a dotted module path and return the attribute/class designated by the last name in the path. Raise ImproperlyConfigured if something goes wrong.

Warning: Deprecated since version Django: 1.6
Function `django.utils.module_loading.import_by_path()` has been added in Django 1.6.

Parameters `dotted_path` (*str*) – Path to imported attribute or class

Returns imported attribute or class

Indices and tables

- `genindex`
- `modindex`
- `search`

e

`embed_video.admin`, [17](#)
`embed_video.backends`, [17](#)
`embed_video.fields`, [20](#)
`embed_video.templatetags.embed_video_tags`,
 [21](#)
`embed_video.utils`, [22](#)

A

AdminVideoMixin (class in embed_video.admin), 17
 AdminVideoWidget (class in embed_video.admin), 17
 allow_https (embed_video.backends.VideoBackend attribute), 18

C

code (embed_video.backends.VideoBackend attribute), 18

D

default_query (embed_video.backends.VideoBackend attribute), 18
 detect_backend() (in module embed_video.backends), 20

E

embed() (embed_video.templatetags.embed_video_tags.VideoNode class method), 21
 embed_video.admin (module), 17
 embed_video.backends (module), 17
 embed_video.fields (module), 20
 embed_video.templatetags.embed_video_tags (module), 21
 embed_video.utils (module), 22
 EMBED_VIDEO_BACKENDS setting, 20
 EMBED_VIDEO_TIMEOUT setting, 20
 EMBED_VIDEO_YOUTUBE_DEFAULT_QUERY setting, 20
 EmbedVideoException, 17
 EmbedVideoField (class in embed_video.fields), 20
 EmbedVideoFormField (class in embed_video.fields), 20

F

formfield_for_dbfield() (embed_video.admin.AdminVideoMixin method), 17

G

get_backend() (embed_video.templatetags.embed_video_tags.VideoNode static method), 21
 get_code() (embed_video.backends.VideoBackend method), 18
 get_embed_code() (embed_video.backends.VideoBackend method), 18
 get_info() (embed_video.backends.VideoBackend method), 18
 get_size() (embed_video.templatetags.embed_video_tags.VideoNode class method), 22
 get_thumbnail_url() (embed_video.backends.VideoBackend method), 18
 get_thumbnail_url() (embed_video.backends.YoutubeBackend method), 20
 get_url() (embed_video.backends.VideoBackend method), 19

H

height (embed_video.backends.SoundCloudBackend attribute), 18

I

import_by_path() (in module embed_video.utils), 22
 info (embed_video.backends.VideoBackend attribute), 19
 is_secure (embed_video.backends.VideoBackend attribute), 19
 is_valid() (embed_video.backends.VideoBackend class method), 19

P

pattern_thumbnail_url (embed_video.backends.VideoBackend attribute), 19
 pattern_url (embed_video.backends.VideoBackend attribute), 19

protocol (embed_video.backends.VideoBackend attribute), 19

Y
YoutubeBackend (class in embed_video.backends), 20

Q

query (embed_video.backends.VideoBackend attribute), 19

R

re_code (embed_video.backends.VideoBackend attribute), 19

re_detect (embed_video.backends.VideoBackend attribute), 19

render() (embed_video.admin.AdminVideoWidget method), 17

render() (embed_video.templatetags.embed_video_tags.VideoNode method), 22

render_block() (embed_video.templatetags.embed_video_tags.VideoNode method), 22

resolve_options() (embed_video.templatetags.embed_video_tags.VideoNode method), 22

S

set_options() (embed_video.backends.VideoBackend method), 19

setting

- EMBED_VIDEO_BACKENDS, 20
- EMBED_VIDEO_TIMEOUT, 20
- EMBED_VIDEO_YOUTUBE_DEFAULT_QUERY, 20

SoundCloudBackend (class in embed_video.backends), 17

T

template_name (embed_video.backends.VideoBackend attribute), 19

thumbnail (embed_video.backends.VideoBackend attribute), 19

U

UnknownBackendException, 18

UnknownIdException, 18

url (embed_video.backends.VideoBackend attribute), 19

V

VideoBackend (class in embed_video.backends), 18

VideoDoesntExistException, 19

VideoNode (class in embed_video.templatetags.embed_video_tags), 21

VimeoBackend (class in embed_video.backends), 20

W

width (embed_video.backends.SoundCloudBackend attribute), 18