django-dajax Documentation

Release 0.9

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Contents

Dajax is a powerful tool to easily and super-quickly develop asynchronous presentation logic in web applications, using Python and almost no JavaScript source code.

It supports four of the most popular JavaScript frameworks: Prototype, jQuery, Dojo and mootols.

Using `django-dajaxice` as communication core, Dajax implements an abstraction layer between presentation logic managed with JavaScript and your Python business logic.

With Dajax you can modify your DOM structure directly from Python.

CHAPTER 1

Documentation

Installation

In order to use `dajax` you should install `django-dajaxice` before. Please follow these instructions here.

Installing Dajax

Install `django-dajax` using `easy_install` or `pip`:

```
$ pip install django_dajax
$ easy_install django_dajax
```

Add `dajax` in your project settings.py inside `INSTALLED_APPS`:

```
INSTALLED_APPS = (
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.sites',
    'dajaxice',
    'dajax',
    ...
)
```

Create a new `ajax.py` file inside your app with your own dajax functions:

```
from dajax.core import Dajax
def multiply(request, a, b):
    dajax = Dajax()
    result = int(a) * int(b)
    dajax.assign('#result','value',str(result))
    return dajax.json()
```

Include dajax in your <head>:

Dajax supports up to four JS libraries. You should add to your project base template the one you need.

- jQuery 1.7.2 - `dajax/jquery.core.js`
- Prototype 1.7 - `dajax/prototype.core.js`
- MooTools 1.4.5 - `dajax/mootools.core.js`
- Dojo 1.7 - `dajax/dojo.core.js`

For example for jQuery:

```
{% static "dajax/jquery.core.js" %}
```

Use Dajax

Now you can call your ajax methods using Dajaxice.app.function('Dajax.process'):

```
<button onclick="Dajaxice.example.myexample(Dajax.process);">Click here!</button>
```

The function _Dajax.process_ will process what the server returns and call the appropriate actions. If you need your own callback, you can change the callback with a function like:

```
function my_callback(data){
    Dajax.process(data);
    /* Your js code */
}
```

And use it as:

```
<button onclick="Dajaxice.app.function(my_callback)">Click here!</button>
```

API

alert(message)

Alert a `message`.

- **message**: Any message you want to alert

Usage Example:

```
from dajax.core import Dajax

def alert_example(request):
    dajax = Dajax()
    dajax.alert('Hello from python!')
    return dajax.json()
```

assign(selector, attribute, value)

Assign to all elements that matches with the `selector` as *attribute*' the `value`.

- **selector**: CSS selector.
- **attribute**: Any valid attribute.
- **value**: The value you want to assing.

Usage Example:

```
from dajax.core import Dajax

def assign_example(request):
    dajax = Dajax()
    dajax.assign('#button', 'value', 'Click here!')
    dajax.assign('div .alert', 'innerHTML', 'This email is invalid')
    return dajax.json()
```

add_css_class(selector, value)

Assign to all elements that matches with the `selector` the `CSS` class `value`. `value` could be a string or a list of them.

- **selector**: CSS selector.
- **value**: Any CSS class name or a list of them.

Usage Example:

```
from dajax.core import Dajax

def add_css_example(request):
    dajax = Dajax()
    dajax.add_css_class('div .alert', 'red')
    dajax.add_css_class('div .warning', ['big', 'yellow'])
    return dajax.json()
```

remove_css_class(selector, value)

Remove to all elements that matches with the `selector` the `CSS` class `value`. `value` could be a string or a list of them.

- **selector**: CSS selector.
- **value**: Any CSS class name or a list of them.

Usage Example:

```
from dajax.core import Dajax

def remove_css_example(request):
    dajax = Dajax()
    dajax.remove_css_class('div .message', 'big-message')
    dajax.remove_css_class('div .total', ['big', 'red'])
    return dajax.json()
```

append(selector, attribute, value)

Append to all elements that matches with the `selector` `value` to with the desired `attribute`.

- **selector**: CSS selector.
- **attribute**: Any valid attribute.
- **value**: Any CSS class name or a list of them.

Usage Example:

```
from dajax.core import Dajax

def append_example(request):
    dajax = Dajax()
    dajax.assign('#message', 'innerHTML', 'Last message')
    return dajax.json()
```

prepend(selector, attribute, value)

Prepend to all elements that matches with the `selector` `value` to with the desired `attribute`.

- **selector**: CSS selector.
- **attribute**: Any valid attribute.
- **value**: Any CSS class name or a list of them.

Usage Example:

```
from dajax.core import Dajax

def prepend_example(request):
    dajax = Dajax()
    dajax.prepend('#message', 'innerHTML', 'First message')
    return dajax.json()
```

clear(selector, attribute)

Clear all elements that matches with the `selector` the desired `attribute`.

- **selector**: CSS selector.
- **attribute**: Any valid attribute.

Usage Example:

```
from dajax.core import Dajax

def clear_example(request):
    dajax = Dajax()
    dajax.clear('#message', 'innerHTML')
    return dajax.json()
```

redirect(url, delay=0)

Redirect current page to `url` with a delay of `ms`.

- **url**: Destination URL.
- **delay**: Number of ms that the browser should wait before redirecting.

Usage Example:

```
from dajax.core import Dajax

def redirect_example(request):
    dajax = Dajax()
    dajax.redirect('http://google.com', delay=2000)
    return dajax.json()
```

script(code)

Executes `code` in the browser

- **code**: Code to execute.

Usage Example:

```
from dajax.core import Dajax

def code_example(request):
    dajax = Dajax()
    dajax.code('my_function();')
    return dajax.json()
```

remove(selector)

Remove all elements that matches `selector`.

- **selector**: CSS selector.

Usage Example:

```
from dajax.core import Dajax

def code_example(request):
    dajax = Dajax()
    dajax.remove('.message')
    return dajax.json()
```

add_data(data, callback_function)

Send `data` to the browser and call `callback_function` using this `data`.

- **data**: Data you want to send to your function.
- **callback_function**: Fuction you want to call in the browser.

Usage Example:

```
from dajax.core import Dajax

def data_example(request):
    dajax = Dajax()
    dajax.add_data(range(10), 'my_js_function')
    return dajax.json()
```

Migrating to 0.9

Static files

Since `0.9` dajax takes advantage of `django.contrib.staticfiles` so deploying a dajax application live is much easy than in previous versions. All the `X.dajax.core.js` flavoured files (jQuery, Prototype, ...) are inside a new folder named static instead of src.

You need to remember to run `python manage.py collectstatic` before deploying your code live. This command will collect all the static files your application need into `STATIC_ROOT`. For further information, this is the Django static files docuemntation

You should change all you dajax core imports using for example for jQuery:

```
{% static "dajax/jquery.core.js" %}
```

Imports

If you was importing `dajax` using:

```
from dajax.core.Dajax import Dajax
```

you should change it to:

```
from dajax.core import Dajax
```

Changelog

0.9.2

- Fix unicode issues
- Fix Internet Explorer issues modifying element's innerHTML

0.9

- Move dajaxice core from dajaxice.core.Dajax to dajax.core
- Django 1.3 is now a requirement
- dajaxice 0.5 is now a requirement
- Static files are now located inside static instead of src

0.8.4

- Upgrade to dajaxice 0.1.3 (New Dajaxice.EXCEPTION)
- Dajax PEP8 naming style for addCSSClass and removeCSSClass
- Fixed some bugs in examples
- Fixed unicode problems

0.8.3

- General: New and cleaned setup.py

0.8.2

- General: Upgrade to dajaxice 0.1.1

0.8.0.1

- dajaxice released, now dajax use it as communication core
- cleaned all the code

0.7.5

- Added Dojo support
- Cleaned js files
- Ajax functions outside project folder now supported.
- Flickr in place editor example.

0.7.4.1

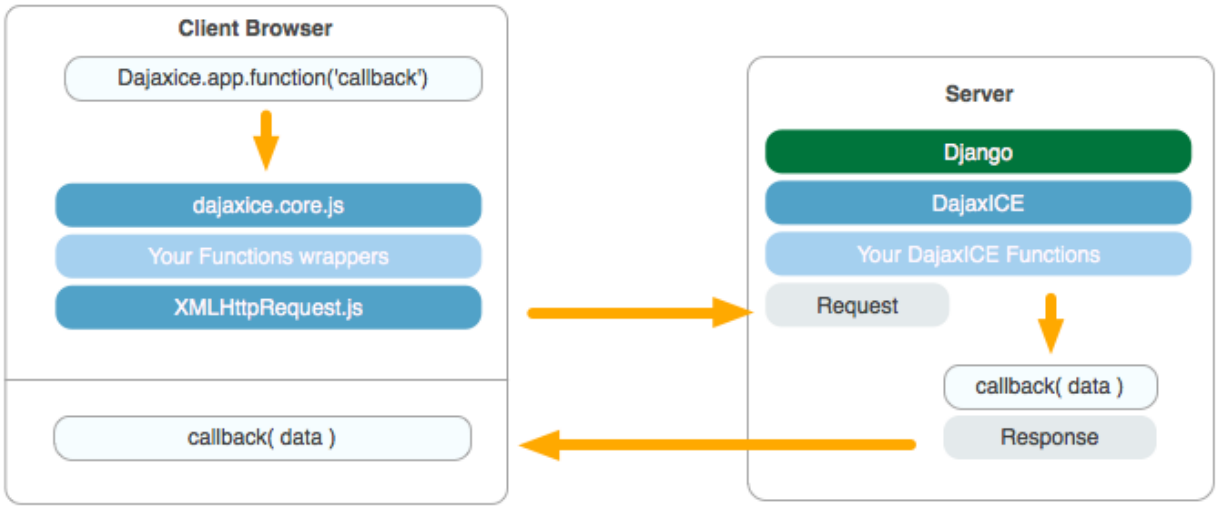
- Typo error importing ajax functions

0.7.4.0

- Typo error importing ajax functions
- Examples: Form validation using new utf-8 support.
- Examples: New deserialize method
- Examples: New DAJAX_CACHE_CONTROL usage in dajax.core.js view.

CHAPTER 2

How does it work?



CHAPTER 3

Example

Once you've installed dajaxice and dajax you can create ajax functions in your Python code:

```
from dajax.core import Dajax

def assign_test(request):
    dajax = Dajax()
    dajax.assign('#box', 'innerHTML', 'Hello World!')
    dajax.add_css_class('div .alert', 'red')
    return dajax.json()
```

This function will assign to `#box` as innerHTML the text `Hello World!` and `Hola!` to every DOM element that matches `.btn`.

You can call this function in your html/js code using:

```
<div onclick="Dajaxice.app.assign_test(Dajax.process);">Click Here!</div>
```

CHAPTER 4

Supported JS Frameworks

Dajax currently support four of the most popular:

- jQuery 1.7.2
- Prototype 1.7
- MooTools 1.4.5
- Dojo 1.7