
Watson - Dev

Release 1.0.0

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Work with WSGI applications locally.

Build Status

Installation

```
pip install watson-dev
```

Testing

Watson can be tested with `pytest`. Simply activate your virtualenv and run `python setup.py test`.

Contributing

If you would like to contribute to Watson, please feel free to issue a pull request via Github with the associated tests for your code. Your name will be added to the AUTHORS file under contributors.

Table of Contents

5.1 Reference Library

5.1.1 watson.dev.middleware

class watson.dev.middleware.**StaticFileMiddleware** (*app, initial_dir=None*)

A WSGI compatible Middleware class that allows content to be retrieved from the directory that the `__main__` is called from.

Example:

```
def app(envIRON, start_response):
    start_response('200 OK', [('Content-Type', 'text/plain')])
    return [b'Hello World!']
```

```
my_app = StaticFileMiddleware(app)
```

```
__init__(app, initial_dir=None)
```

5.1.2 watson.dev.reloader

```
1  # -*- coding: utf-8 -*-
2  # Autoreloading launcher.
3  # Borrowed from Peter Hunt and the CherryPy project (http://www.cherrypy.org).
4  # Some taken from Ian Bicking's Paste (http://pythonpaste.org/).
5  # Sourced from the Django project (http://djangoproject.com)
6  #
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```
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29 # CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY,
30 # OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE
31 # OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.
32 import sys
33 import os
34 import time
35 import _thread as thread
36 from watson.common.contextmanagers import ignored
37
38 _mtimes = {}
39
40
41 def code_changed():
42     global _mtimes
43     filenames = [getattr(m, "__file__", None) for m in sys.modules.values()]
44     for filename in filter(None, filenames):
45         if filename.endswith(".pyc") or filename.endswith(".pyo"):
46             filename = filename[:-1]
47         if filename.endswith("$py.class"):
48             filename = filename[:-9] + ".py"
49         if not os.path.exists(filename):
50             continue
51         stat = os.stat(filename)
52         mtime = stat.st_mtime
53         if filename not in _mtimes:
54             _mtimes[filename] = mtime
55             continue
56         if mtime != _mtimes[filename]:
57             _mtimes = {}
58             return True
59     return False
60
61
62 def reloader_thread():
63     while True:
64         if code_changed():
65             sys.exit(3)
66         time.sleep(1)
67
68
69 def restart_with_reloader(script_dir=None):
70     import __main__
71     while True:
72         if not script_dir:
73             script = os.path.abspath(__main__.__file__)
74         else:
75             script = os.path.abspath(
76                 os.path.join(script_dir, __main__.__file__))
77         args = [sys.executable, script]
78         sys_argv = sys.argv[:]
```



```

79         if len(sys_argv) > 1:
80             sys_argv.pop(0)
81             args = args + sys_argv
82         new_environ = os.environ.copy()
83         new_environ['RUN_MAIN'] = 'true'
84         exit_code = os.spawnve(os.P_WAIT, sys.executable, args, new_environ)
85         if exit_code != 3:
86             return exit_code
87
88
89 def reloader(main_func, args, kwargs, script_dir=None):
90     if os.environ.get('RUN_MAIN') == 'true':
91         thread.start_new_thread(main_func, args, kwargs)
92         with ignored(KeyboardInterrupt):
93             reloader_thread()
94     else:
95         try:
96             exit_code = restart_with_reloader(script_dir)
97             if exit_code < 0:
98                 os.kill(os.getpid(), -exit_code)
99             else:
100                 sys.exit(exit_code)
101         except KeyboardInterrupt:
102             print('\nTerminated.')
103
104
105 def main(main_func, args=None, kwargs=None, script_dir=None):
106     reloader(main_func, args or (), kwargs or {}, script_dir)

```

5.1.3 watson.dev.server

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`watson.dev.middleware`, [11](#)