sprockets.mixins.amqp

Release 1.0

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AMQP Publishing Mixin for Tornado RequestHandlers.

CHAPTER 1

Installation

`sprockets.mixins.amqp` is available on the Python Package Index and can be installed via `pip` or `easy_install`:

```
pip install sprockets.mixins.amqp
```

CHAPTER 2

Documentation

https://pythonhosted.org/sprockets.mixins.amqp

CHAPTER 3

Requirements

- pika>=0.10.0
- tornado>=4.2.0

CHAPTER 4

Example

You may optionally install `sprockets.mixins.correlation` into your request handler to take advantage of automatic correlation_id fetching. Otherwise, be sure to set correlation_id as an instance variable on your request handler before sending AMQP messages.

This examples demonstrates the most basic usage of `sprockets.mixins.amqp`

```
export AMQP_URL="amqp://user:password@rabbitmq_host:5672/%2f"
python my-example-app.py
```

```
import json

from tornado import gen, web
from sprockets.mixins import amqp

def make_app(**settings):
    application = web.Application(
        [
            web.url(r'/', RequestHandler),
        ], **settings)

    amqp_settings = {
        "reconnect_delay": 5,
    }

    amqp.install(application, **amqp_settings)
    return application


class RequestHandler(amqp.PublishingMixin,
                     correlation.HandlerMixin,
                     web.RequestHandler):

    @gen.coroutine
    def get(self, *args, **kwargs):
        body = {'request': self.request.path, 'args': args, 'kwargs': kwargs}
```

```
        yield self.amqp_publish(
            'exchange',
            'routing.key',
            json.dumps(body),
            {'content_type': 'application/json'}
        )
```

AMQP Settings

url The AMQP URL to connect to.

reconnect_delay The optional time in seconds to wait before reconnecting on connection failure.

timeout The optional maximum time to wait for a bad state to resolve before treating the failure as persistent.

connection_attempts The optional number of connection attempts to make before giving up.

on_ready_callback The optional callback to call when the connection to the AMQP server has been established and is ready.

on_unavailable_callback The optional callback to call when the connection to the AMQP server becomes unavailable.

on_persistent_failure_callback The optional callback to call when the connection failure does not resolve itself within the timeout.

on_message_returned_callback The optional callback to call when the AMQP server returns a message.

ioloop An optional IOLoop to override the default with.

Environment Variables

Any environment variables set will override the corresponding AMQP settings passed into install()

- AMQP_URL
- AMQP_TIMEOUT
- AMQP_RECONNECT_DELAY
- AMQP_CONNECTION_ATTEMPTS

CHAPTER 5

Source

`sprockets.mixins.amqp` source is available on Github at https://github.com/sprockets/sprockets.mixins.amqp

CHAPTER 6

License

`sprockets.mixins.amqp` is released under the 3-Clause BSD license.

CHAPTER 7

Issues

Please report any issues to the Github project at https://github.com/sprockets/sprockets.mixins.amqp/issues

API

Version History

2.1.2 May 3, 2017

- Move setting default properties up one level to allow access when not ready

2.1.1 May 3, 2017

- Fix overlogging

2.1.0 May 3, 2017

- Fix intentional closing of an AMQP connection
- New behavior for publishing that raises exception
- Add publisher confirmations
- Make `sprockets.mixins.amqp.install()` work with sprockets.http
- Add support for environment variables prefixed with `AMQP_` or `RABBITMQ`
- Clean up AMQP message property behavior, make defaults, but don't change already set values
- Automatically create the default `app_id` AMQP message property
- Split out tests into a mix of unit tests and integration tests

- Update state behaviors, names, and transitions
- All publishing is mandatory, returned messages are logged, a callback can be registered

2.0.0 Apr 24, 2017

- Move Mixin and AMQP client to separate files
- Replace AMQP connection handling code with latest internal version
- Provide ability to register callbacks for ready, unavailable, and persistent failure states
- Remove default AMQP URL from AMQP class, url is now a required parameter for install
- Rename amqp_publish 'message' parameter to 'body'
- Add properties for all AMQP states
- **Provide mandatory AMQP properties (app_id, correlation_id, message_id, timestamp) automatically**
  - Mandatory properties cannot be overridden
- **Add unit test coverage for new functionality**
  - Test execution requires a running AMQP server

1.0.1 Feb 28, 2016

- Fixed documentation links and generation.

1.0.0 Mar 15, 2016

- Connect to AMQP in `sprockets.mixins.amqp.install` and maintain and persist connection
- Change to use tornado locks.Condition vs locks.Event

0.1.4 Mar 09, 2016

- Reconnect in connection close callback

0.1.3 Sept 28, 2015

- Use packages instead of py_modules

0.1.2 Sept 25, 2015

- Don't log the message body

0.1.1 Sept 24, 2015

- Clean up installation and testing environment

0.1.0 Sept 23, 2015

- Initial implementation