txROSpy: an asynchronous Python library for ROS

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http://github.com/esteve/txrospy

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What is Twisted and why use it for txROSpy

- Twisted is MIT/X11 licensed, txROSpy is Apache
- A Python framework for asynchronous programming
- Doesn't use threads for concurrency
- Comes with a huge library of protocols (HTTP, SSL, SSH, AMQP, XML-RPC, Thrift and more)
- Extensively tested
- High performance
- Widely used (Rackspace, NASA, Canonical, Lucasfilm)
- txROSpy supports the Publisher/Subscriber and Client/Server APIs

Example code: Client

```python
@inlineCallbacks
def start_client():
    client = txrospy.ROSClient('add_two_ints', 'async_client',
        AddTwoInts)
    proxy = yield client.wait_for_endpoint()

    result = yield proxy.call(1, 2)
    print result

    reactor.stop()

if __name__ == '__main__':
    start_client()
    reactor.run()
```

Example code: Server

```python
def handler(req):
    print "Adding a (%d) and b (%d)" % (req.a, req.b)
    response = AddTwoIntsResponse(req.a + req.b)
    d = defer.Deferred()
    # Simulate a long-running computation
    reactor.callLater(1.0, d.callback, response)
    return d

application = service.Application('txrospy')
f = txrospy.ROSService(handler, AddTwoInts,
    'add_two_ints_server', 'add_two_ints',
    'rosrpc://localhost:12345', 'http://localhost:54321/')
serviceCollection = service.IServiceCollection(application)
```

Thank you

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