Training: Python Academy
Twisted

TRAINING GOALS:

This tutorial is intended for programmers with at least some **Python** experience who want to use the **Twisted framework**. It is suitable for people trying to start new Twisted projects, are looking to integrate Twisted with an existing non-Twisted project, or who have inherited an existing Twisted project.

CONSPECT:

- Core course
  - Introduction
  - Event loops
  - Environment setup
  - Dependencies and required software
  - Where to get help
  - Documentation
  - Support channels: IRC, mailing list...
  - Protocols, factories and endpoints
  - Introduction
  - Building a simple protocol
  - Client and server factories
  - Serving your protocol:
  - reactor.listen/connect
  - Endpoints
  - Existing and composable protocols
  - Deferreds
  - Introduction
  - Exercises
  - @inlineCallbacks
- Important toplevel packages
  - Twisted Web

Compendium Centrum Edukacyjne Spółka z o.o.
ul. Tatarska 5, 30-103 Kraków, tel.: (12) 298 47 77
ul. Postępu 18B, 02-676 Warszawa, tel.: (22) 417 41 70
BNP Paribas Bank Polska S.A.
EUR: PL 79 1600 1462 1853 6451 3000 0006
USD: PL 52 1600 1462 1853 6451 3000 0007

    - Servers (with exercises)
    - Resource traversal
    - Clients (exercises based on previous servers)
    - Twisted Cred: pluggable authentication
    - Overview
    - Exercises
- Other toplevel packages and third party packages
    - twisted.words: Chat protocols & IRC support
    - IRC clients
    - A simple bot
    - Adding more advanced behavior (e.g. webhooks)
    - Building an IRC server
    - Wokkel (Friend fork with advanced Jabber/XMPP support)
    - twisted.news: NTTP support
    - twisted.conch: SSH support (timing depends on level of detail and which components)
    - Database access
    - twisted.enterprise + txpostgres
    - txredis, paisley (couchdb), telephus (cassandra)
    - Axiom
    - twisted.spread: distributable computing
    - twisted.names: DNS servers and clients
    - Twisted Community Code (tx) (length depends on the package)
    - scrapy: advanced scraping architecture built on Twisted
- Advanced topics
    - Dealing with legacy/synchronous code
    - WSGI app case study: django-packages
    - Threads: deferToThread(Pool), blockingCallFromThread
    - Dealing with CPU-bound problems
    - Introduction
    - Explicit cooperative multitasking
    - Threads (reference; see previous mention of threads)
    - Multiprocessing options and Ampoule
    - Application framework
    - Services and applications
    - twistd: running servers & daemonization
    - Twisted's plugin system

Compendium Centrum Edukacyjne Spółka z o.o.
ul. Tatarska 5, 30-103 Kraków, tel.: (12) 298 47 77
ul. Postępu 18B, 02-676 Warszawa, tel.: (22) 417 41 70
BNP Paribas Bank Polska S.A.
EUR: PL 79 1600 1462 1853 6451 3000 0006
USD: PL 52 1600 1462 1853 6451 3000 0007

- Writing your own twisted plugins
- Advanced application concepts
- Process monitoring: daemontools, upstart, systemd, etc.
- Live server monitoring and maintenance with manhole
- Contributing to Twisted
- Issue tracker
- Setting up the environment
- Review process

In addition to the previous topics, the following topics are touched on as needed:

- Test Driven Twisted: twisted.trial (tutorial is TDD where sensible)
- twisted.python: useful random python utilities
- FilePath: like paths but better
- Logging

REQUIREMENTS:

- Basic knowledge of **Python** and **object oriented programming** is required.
- If you don't know Python it is strongly recommended to take **Python for Programmers** before this course.

Difficulty level



CERTIFICATE:

The participants will obtain certificates signed by Python Academy.

TRAINER:

Authorized Python Academy Trainer.

Compendium Centrum Edukacyjne Spółka z o.o.
ul. Tatarska 5, 30-103 Kraków, tel.: (12) 298 47 77
ul. Postępu 18B, 02-676 Warszawa, tel.: (22) 417 41 70
BNP Paribas Bank Polska S.A.
EUR: PL 79 1600 1462 1853 6451 3000 0006
USD: PL 52 1600 1462 1853 6451 3000 0007