
MLTSP Documentation

Release 0.2

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Installation

1.1 System dependencies

Install compiler dependencies with

```
sudo apt-get install build-essential python-dev libgfortran3
```

If you are using Anaconda (install dependencies with `sudo apt-get install libsm6 libxrender1 libfontconfig1`), create your environment with packaged dependencies pre-installed to save time:

```
conda create -n mltspace scipy pandas matplotlib scikit-learn pip
```

Then activate the environment:

```
source activate mltspace
```

- Install MLTSP

```
pip install mltspace
```

- Install RabbitMQ

For Debian / Ubuntu:

```
sudo apt-get install rabbitmq-server
```

The server will automatically run as a daemon (background process) upon install on Ubuntu.

Downloads for Mac OS X are [here](#). Launch via `rabbitmq-server -detached` after install.

- Install PhantomJS

For Debian / Ubuntu:

```
sudo apt-get install phantomjs
```

Downloads for Mac OS X are [here](#).

- Install RethinkDB

For Debian / Ubuntu:

```
source /etc/lsb-release && echo ``deb http://download.rethinkdb.com/apt $DISTRIB_CODENAME  
wget -qO- http://download.rethinkdb.com/apt/pubkey.gpg | sudo apt-key add -  
sudo apt-get update  
sudo apt-get install rethinkdb
```

Instructions for Mac OS X are [here](#).

- Install Docker (optional)

This step is only required if you want to support the execution of user-specified feature extractors.

See <https://docs.docker.com/installation/ubuntu/linux/> for installation and configuration instructions.

Pull down the required images:

```
tools/docker_pull.sh
```

Alternatively (but this takes much longer), build the images on your own machine:

```
tools/build_docker_images.sh
```

1.2 Configuration

- Run `mltsp --install`.
- Optionally: locate `~/.config/mltsp/mltsp.yaml` and customize authentication tokens.

1.3 Running MLTSP

Create the MLTSP database:

```
mltsp --db-init
```

Then, launch the web platform:

```
mltsp --disable-auth # Without user authentication mltsp # With user authentication
```

Connect with a web browser to `http://localhost:5000`.

1.4 Developer installation

Dependencies are listed in `requirements.txt`. Install them using:

```
pip install --find-links=http://wheels.scikit-image.org -r requirements.txt
```

Then do a local installation from the MLTSP directory:

```
pip install -e .
```

1.5 Developer Makefile targets

- Launch RethinkDB:

```
make db
```

- Initialize the database:

```
make init
```

- Launch:

```
make webapp
```

- To specify host, port, etc., edit `tools/launch_waitress.sh`.