**User Manual**

For Multiagent Control of Traffic Signals

Version 1.0

Submitted in partial fulfillment of the requirements of the degree of MSE

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# Intro

This user manual will inform you of the software needed by the MACTS in order to run simulations. You’ll learn what one time and routine configuration needs to be done. Next you’ll see how to start up the agents. Then you’ll learn how to collect metrics and parse them. In the final section you will be presented with information on how to create your own agents.

# Software Required to Run

## RabbitMQ

## MongoDB

## Python

## Simulation for Urban MObility

# Configuration

## One time setup of database

## One time setup of RabbitMQ infrastructure

## RabbitMQ Exchange Initiation

# Running Simulations

## Running Fixed Response Simulation – No Agents

## Running Agents

## Collecting Metrics

# Developer Information

## Creating your own planning agents

## The Core Package

## Using a Safety Agent

## Using a Collaboration Agent