

# NIC Demo Script

## Overview

The purpose of the demo script is to add an additional layer of abstraction between defining intents or mappings and generating the REST calls to implement them on the OpenDaylight controller. Users can use the script to enter desired intents or mappings in a more human-readable format. The script will then generate the appropriate REST calls to make these intents and mappings a reality. Additionally, intents and mappings can be declared in files prior to running the script, which allows intents and mappings to be imported automatically without the user having to repeatedly type them in.

## Using the Script

- 1) Download the script repository:

`git clone https://github.com/topherws/odl-nic-demo`

- 2) Navigate to the script directory

`cd odl-nic-demo`

- 3) Begin execution by typing

`python nic_demo.py`

- 4) If `mappings.nic` or `intents.nic` file(s) are present in the script directory, the script will ask if you want to import declarations from those files.

4a) Type `y` to import declarations

4b) Type `n` to not import declarations

- 5) To interact with the script type one of the following commands into the `nic>` prompt and hit enter.

Variables in `<>` are required, variables in `[]` are optional.

`map`: create a new mapping

`map <epg> to <domain> [uid]`

`<epg>` : The endpoint group (name) for the mapping

`<domain>` : The domain (i.e. IP or MAC address) being mapped

`[uid]` : Optional uid for the mapping (will be generated if not specified)

`intent`: create a new intent

`intent <epg1> to <epg2> <action> [uid]`

`<epg1>` : The source (from) endpoint group (name)

`<epg2>` : The destination (to) endpoint group (name)

`<action>` : The action for the intent (`allow`, `block`, or `log`)

`[uid]` : Optional id for the mapping (will be generated if not specified)

**print:** print the current mappings or intents

**print** <objects>

<objects> : The objects to be printed (**mappings** or **intents**)

**delete:** delete the current mappings or intents

**delete** <objects>

<objects> : The objects to be deleted (**mappings** or **intents**)

**help:** print out usage information for the script (will print if an invalid command is given)

**help**

**exit:** exit the script (**quit** and **shutdown** will also work)

**exit**

## Using the .nic Files

To use the **mappings.nic** and **intents.nic** files, enter a new valid mapping or intent command and save it to the correct file (mappings in **mappings.nic**, intents in **intents.nic**). Each command should be on a separate line.

Example **mappings.nic** file:

Engg to 172.16.0.1

Mktg to DE-E6-83-46-E2-71

Finance to 172.16.0.4

Server to 172.16.0.10

Example **intents.nic** file:

Engg to Mktg allow

Server to Finance block

Server to Engg log