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# eudtrglib Documentation

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This is an official documentation of eudtrg.

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## INTRODUCTION

eudtrg is a tool for systematically generating Self-modifying trigger, trigger that can be modified by EUD actions. With eudtrg, you can easily create triggers that modify triggers. We call this technique ‘Trigger programming’. With trigger programming, you can

- Create control flow such as conditional branch and loop.
- Customize conditions and actions ingame.
- Use variables that supports fast assignment and calculation.
- Make functions out of triggers.

As a result, programming is possible. Any C code without APIs can be converted to equivalent eudtrg trigger. eudtrg is harder than assembly, but it can do anything.

### **Example map:**

- `CreepDependentZergling` : Zergling gets slower as they move out of the creep. This map checks position and creep for every zergling and controls their speed respectively.

SEN article for trigger programming : <http://www.stareddit.net/topic/16214/>





## GETTING STARTED

### 2.1 Installing eudtrg

eudtrg requires Python 3. The easiest way to install eudtrg is using pip.

```
pip install eudtrg
```

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**Note:** eudtrg currently uses 32bit SFmpq.dll to run, so

- eudtrg requires Windows installation.
  - eudtrg requires 32bit Python 3.x
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### 2.2 First map

Create test.py and write the following code:

```
from eudtrg import *

LoadMap('basemap.scx')

b = Forward()

a = Trigger(
    nextptr = b, # Trigger executed after a is b
    actions = [
        SetDeaths(Player1, Add, 1, 'Terran Marine')
    ]
)

b << Trigger(
    nextptr = a, # Trigger executed after b is a
    actions = [
        SetDeaths(Player2, Add, 1, 'Terran Marine')
    ]
)

SaveMap('output.scx', a) # save map with a as starting trigger.
```

Create basemap.scx with at least 1 computer players in the same directory with test.py and run test.py. output.scx will be created. To test the map

- **Run Starcraft in windowed mode with EUD Action Enabler. Running the map in fullscreen may freeze entire computer.** You can use ChaosLauncher.
- Copy output.scx to Starcraft map folder and run it.
- **Starcraft will freeze. Marine's deaths of P1 and P2 will increase infinitely.** Check them with your favorite memory editing program. (Check addr 0x58A364)

## INDICES AND TABLES

- *genindex*
- *modindex*
- *search*