

Computer Network HW2

TCP Go-Back-N + Congestion Control

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Model Description

使用 Python 3.6.2 在 OSX 環境上運行，主要有 Agent.py, Receiver.py 和 Sender.py 三個檔案，使用的 Library: numpy, argparse, socket, hashlib, pickle。

執行時加上 -h 可以看後面可以加的參數有哪些，底下三行指令是 example：

```
python Agent.py --Port 2000 --loss_rate=0.01
```

```
python Receiver.py rev_file.txt
```

```
python Sender.py snd_file.txt --Port 2000 --time_out=0.1
```

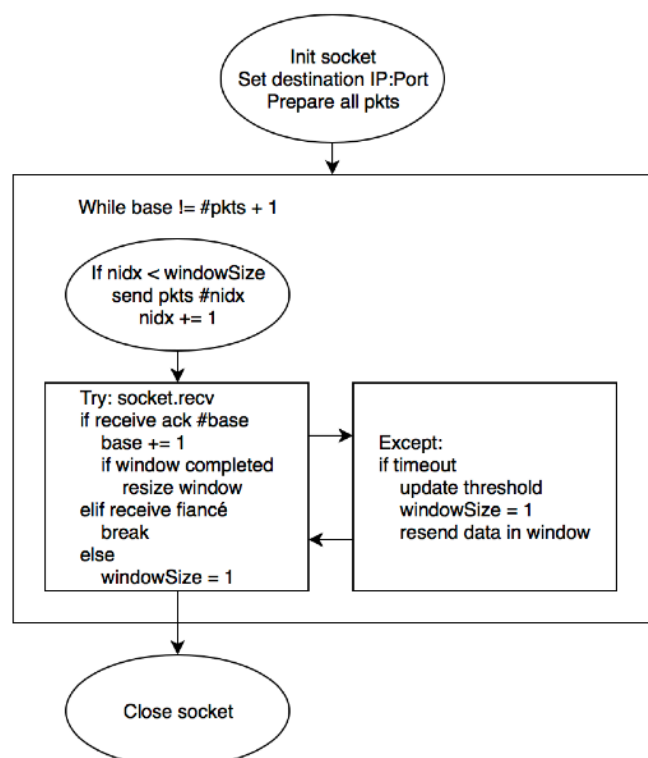
預設的 IP 在 '127.0.0.1'，其他參數按照作業規定。以下為截圖：

```
usage: Agent.py [-h] [--loss_rate LOSS_RATE] [--forwardIP FORWARDIP]
               [--forwardPort FORWARDPORT] [--IP IP] [--Port PORT]
               [--packet_size PACKET_SIZE] [--time_out TIME_OUT]
               [--threshold THRESHOLD]
CN_HW2 Agent
optional arguments:
  -h, --help            show this help message and exit
  --loss_rate LOSS_RATE
  --forwardIP FORWARDIP
  --forwardPort FORWARDPORT
  --IP IP
  --Port PORT
  --packet_size PACKET_SIZE
  --time_out TIME_OUT
  --threshold THRESHOLD

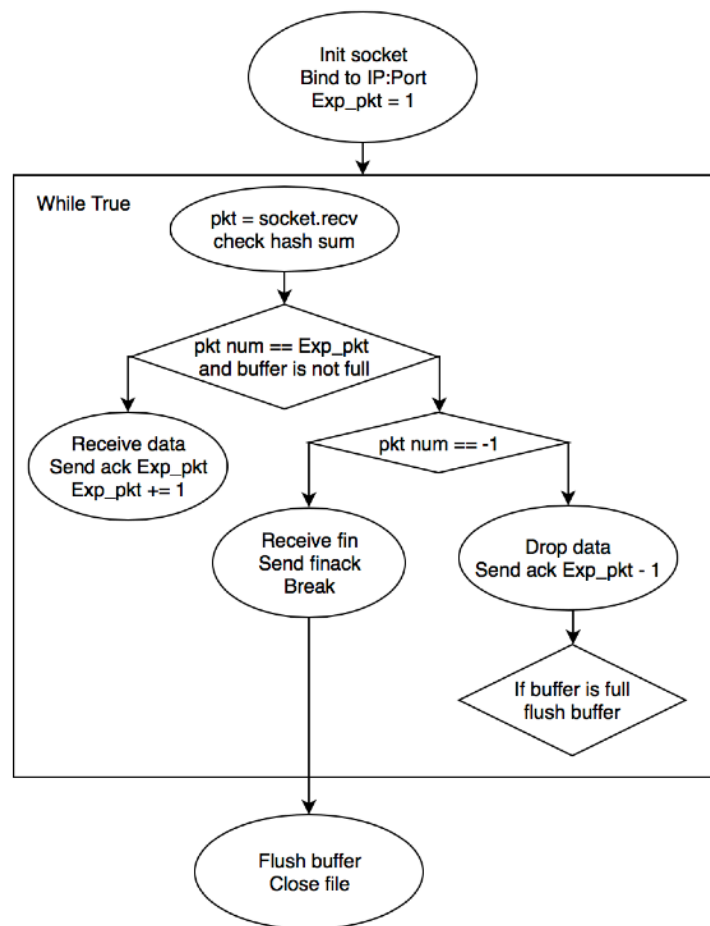
usage: Sender.py [-h] [--IP IP] [--Port PORT] [--packet_size PACKET_SIZE]
                 [--time_out TIME_OUT] [--threshold THRESHOLD]
                 source
CN_HW2 Sender
positional arguments:
  source
optional arguments:
  -h, --help            show this help message and exit
  --IP IP
  --Port PORT
  --packet_size PACKET_SIZE
  --time_out TIME_OUT
  --threshold THRESHOLD

usage: Receiver.py [-h] [--buffer_size BUFFER_SIZE] [--IP IP] [--Port PORT]
                  [--packet_size PACKET_SIZE] [--time_out TIME_OUT]
                  [--threshold THRESHOLD]
                  dest
CN_HW2 Receiver
positional arguments:
  dest
optional arguments:
  -h, --help            show this help message and exit
  --buffer_size BUFFER_SIZE
  --IP IP
  --Port PORT
  --packet_size PACKET_SIZE
  --time_out TIME_OUT
  --threshold THRESHOLD
```

Sender.py



Receiver.py



Agent.py

