

Checkpoint

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先编译链接所有代码文件，在不同的cp文件夹下运行peer文件，cp1如下：

```
搜索您的计算机 Box:~/桌面/Starter Code/starter_code$ cp peer ../cp3
hzh@hzh-VirtualBox:~/桌面/Starter Code/starter_code$ cp peer ../concurr*
hzh@hzh-VirtualBox:~/桌面/Starter Code/starter_code$ cd ../cp1
hzh@hzh-VirtualBox:~/桌面/Starter Code/cp1$ ruby check*
starting SPIFFY on port 15441
starting tests
15-441 PROJECT 2 PEER
```

cp1的三个test全部通过：

```
Delete this line after testing.
Spiffy local stuff: 0100007f:1111
Spiffy setup complete. 127.0.0.1:15441
Delete this line after testing.
Listening on 15441...
verifying packet sanity
##### Test 1 Passed! #####
15-441 PROJECT 2 PEER
```

```
Spiffy setup complete. 127.0.0.1:15441
Delete this line after testing.
Spiffy local stuff: 0100007f:1111
Spiffy setup complete. 127.0.0.1:15441
Delete this line after testing.
creating Control packet of type 0 with 2 chunks
verifying packet sanity
##### Test 2 Passed! #####
15-441 PROJECT 2 PEER
```

```
peer 1: 127.0.0.1:1111
Spiffy local stuff: 00000000:2222
Spiffy setup complete. 127.0.0.1:15441
Delete this line after testing.
Spiffy local stuff: 0100007f:1111
Spiffy setup complete. 127.0.0.1:15441
Delete this line after testing.
creating Control packet of type 0 with 2 chunks
^[^AGood, went ten seconds without receiving I HAVE
##### Test 3 Passed! #####
```

在cp2中运行ruby脚本：

```
killing spiffy
hzh@hzh-VirtualBox:~/桌面/Starter Code/cp1$ cd ../cp2
hzh@hzh-VirtualBox:~/桌面/Starter Code/cp2$ ruby check*
starting SPIFFY on port 15441
starting tests
spiffy local stuff: 0100007f:1111
spiffy setup complete. 127.0.0.1:15441
```

两个test全部通过：

```

Spiffy local stuff: 0100007f:1111
Spiffy setup complete. 127.0.0.1:15441
Delete this line after testing.
Spiffy local stuff: 00000000:2222
Spiffy setup complete. 127.0.0.1:15441
Delete this line after testing.
Listening on 15441...
id = 0, hash = 6acfce07d222d400ce900d918306c6664501b33f
continue GET task
id = 1, hash = af91dbd47aac60e980e0369df68271ca52de11a8
write data to the target file
***** ref_peer exiting after 2 connections, as specified by -x f
##### Test 1 Passed! #####

```

```

Spiffy local stuff: 0100007f:2222
Spiffy setup complete. 127.0.0.1:15441
Delete this line after testing.
id = 0, hash = 3b9f916bbf59021ab781c9f2456df90a0102079f
id = 0, hash = 3b9f916bbf59021ab781c9f2456df90a0102079f
id = 0, hash = 3b9f916bbf59021ab781c9f2456df90a0102079f
id = 1, hash = 78585121ee33fbb6666bc4bf1a8498c04b2758e8
id = 1, hash = 78585121ee33fbb6666bc4bf1a8498c04b2758e8
id = 1, hash = 78585121ee33fbb6666bc4bf1a8498c04b2758e8
GOT test2.tar
***** ref_peer exiting after 2 connections, as specified by -x
***
##### Test 2 Passed! #####

```

在cp3中运行ruby脚本:

```

hzh@hzh-VirtualBox:~/桌面/Starter Code/cp2$ cd ../cp3
hzh@hzh-VirtualBox:~/桌面/Starter Code/cp3$
hzh@hzh-VirtualBox:~/桌面/Starter Code/cp3$ ruby check*
starting SPIFFY on port 15441
drop rate = 0.10

droptimes str = 60:69:90
key = 127.0.0.1:1111,127.0.0.1:2222 droptimes = 60 69 90

```

两个test全部通过:

```

write data to the target file
Dropping packet seq = 375, ack = 0 len = 720 (from,to) = (127.0.0.1:1111,127.0.0.1:2222) at time = 114027
LibreOffice Calc seq = 375, ack = 0 len = 720 (from,to) = (127.0.0.1:1111,127.0.0.1:2222) at time = 114028
***** ref_peer exiting after 2 connections, as specified by -x flag *****
##### Test 1 Passed! #####
15-441 PROJECT 2 PEER

```

```

queue loss!
queue loss!
queue loss!
queue loss!
Dropping packet seq = 511, ack = 0 len = 2048 (from,to) = (127.0.0.1:1111,1222) at time = 143853
Dropping packet seq = 509, ack = 0 len = 2048 (from,to) = (127.0.0.1:1111,1222) at time = 143869
Dropping packet seq = 511, ack = 0 len = 2048 (from,to) = (127.0.0.1:1111,1222) at time = 143915
Dropping packet seq = 512, ack = 0 len = 2048 (from,to) = (127.0.0.1:1111,1222) at time = 143921
Successfully Downloaded: id = 1, hash = 78585121ee33fbb6666bc4bf1a8498c04b2
GOT test2.tar
***** ref_peer exiting after 2 connections, as specified by -x flag ***
##### Test 2 Passed! #####
done with tests

```

在concurrent中运行测试:

```

hzh@hzh-VirtualBox:~/桌面/Starter Code/cp3$ cd ../concu*
hzh@hzh-VirtualBox:~/桌面/Starter Code/concurrenttest$ ruby concurre*
starting SPIFFY on port 15441
drop rate = 0.00

droptimes str = 60
key = 127.0.0.1:1111,127.0.0.1:2222 droptimes = 60

```

通过全部的test:

```

GET 1 received GET from peer 51
id = 1, hash = af91dbd47aac60e980e0369df68271ca52de11a8
Data Transfer May take a few minutes
continue GET task
***** ref_peer exiting after 1 connections, as specified by -x
write data to the target file
***** ref_peer exiting after 1 connections, as specified by -x
##### Test 1 Data is Correct #####
killing spiffy after test1
done with test

```