

## DevNotes

Concise, Handy and Elegant Notes for Developers



# Transfer file over TCP/UDP

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This is a small lab I have done to see how easy to use python to transfer file over TCP and UDP. File formats including plain text, MS word, pdf, image and vedio.

```
1  import socket
2  import sys
3
4  TCP_IP = "127.0.0.1"
5  FILE_PORT = 5005
6  DATA_PORT = 5006
7  buf = 1024
8  file_name = sys.argv[1]
9
10
11 try:
12     sock = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
13     sock.connect((TCP_IP, FILE_PORT))
14     sock.send(file_name)
15     sock.close()
16
17     print "Sending %s ..." % file_name
18
19     f = open(file_name, "rb")
20     sock = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
21     sock.connect((TCP_IP, DATA_PORT))
22     data = f.read()
23     sock.send(data)
24
25 finally:
26     sock.close()
27     f.close()
```

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```
1  import socket
2
3  TCP_IP = "127.0.0.1"
4  FILE_PORT = 5005
5  DATA_PORT = 5006
6  timeout = 3
7  buf = 1024
8
9
10 sock_f = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
11 sock_f.bind((TCP_IP, FILE_PORT))
12 sock_f.listen(1)
13
14 sock_d = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
15 sock_d.bind((TCP_IP, DATA_PORT))
16 sock_d.listen(1)
17
18
19 while True:
20     conn, addr = sock_f.accept()
21     data = conn.recv(buf)
22     if data:
23         print "File name:", data
24         file_name = data.strip()
25
26         f = open(file_name, 'wb')
27
28         conn, addr = sock_d.accept()
29         while True:
30             data = conn.recv(buf)
31             if not data:
32                 break
33             f.write(data)
34
35         print "%s Finish!" % file_name
36         f.close()
```

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```
1  import socket
2  import time
3  import sys
4
5  UDP_IP = "127.0.0.1"
6  UDP_PORT = 5005
7  buf = 1024
8  file_name = sys.argv[1]
9
```

```
10
11 sock = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
12 sock.sendto(file_name, (UDP_IP, UDP_PORT))
13 print "Sending %s ..." % file_name
14
15 f = open(file_name, "r")
16 data = f.read(buf)
17 while(data):
18     if(sock.sendto(data, (UDP_IP, UDP_PORT))):
19         data = f.read(buf)
20         time.sleep(0.02) # Give receiver a bit time to save
21
22 sock.close()
23 f.close()
```

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```
1 import socket
2 import select
3
4 UDP_IP = "127.0.0.1"
5 IN_PORT = 5005
6 timeout = 3
7
8
9 sock = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
10 sock.bind((UDP_IP, IN_PORT))
11
12 while True:
13     data, addr = sock.recvfrom(1024)
14     if data:
15         print "File name:", data
16         file_name = data.strip()
17
18         f = open(file_name, 'wb')
19
20         while True:
21             ready = select.select([sock], [], [], timeout)
22             if ready[0]:
23                 data, addr = sock.recvfrom(1024)
24                 f.write(data)
25             else:
26                 print "%s Finish!" % file_name
27                 f.close()
28                 break
```

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**Post link:** <http://chuanjin.me/2016/08/03/transfer-file/>

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