

Manual

1. Running Environment

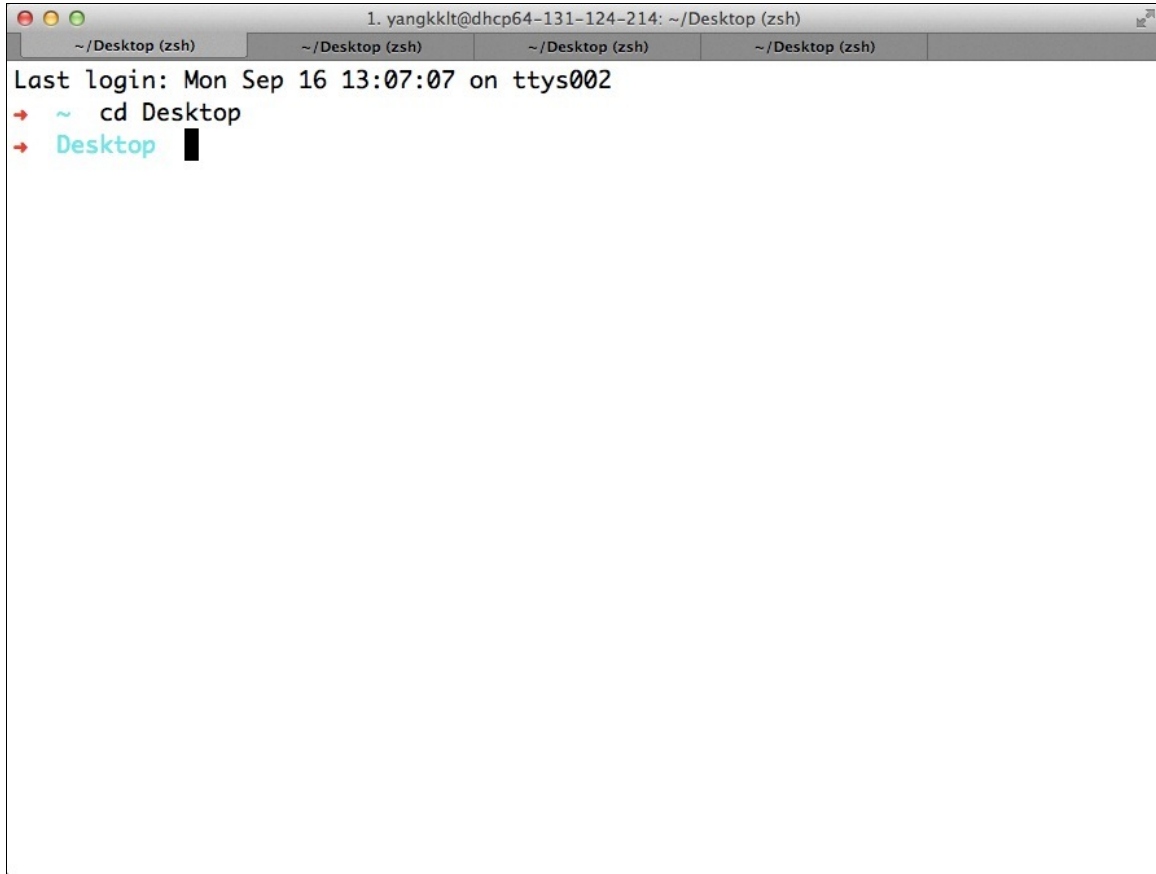
Platform: Java SE-1.6

OS: Window 7, Mac OS X 10.8.5 or Ubuntu 12.04 LTS

2. How to run

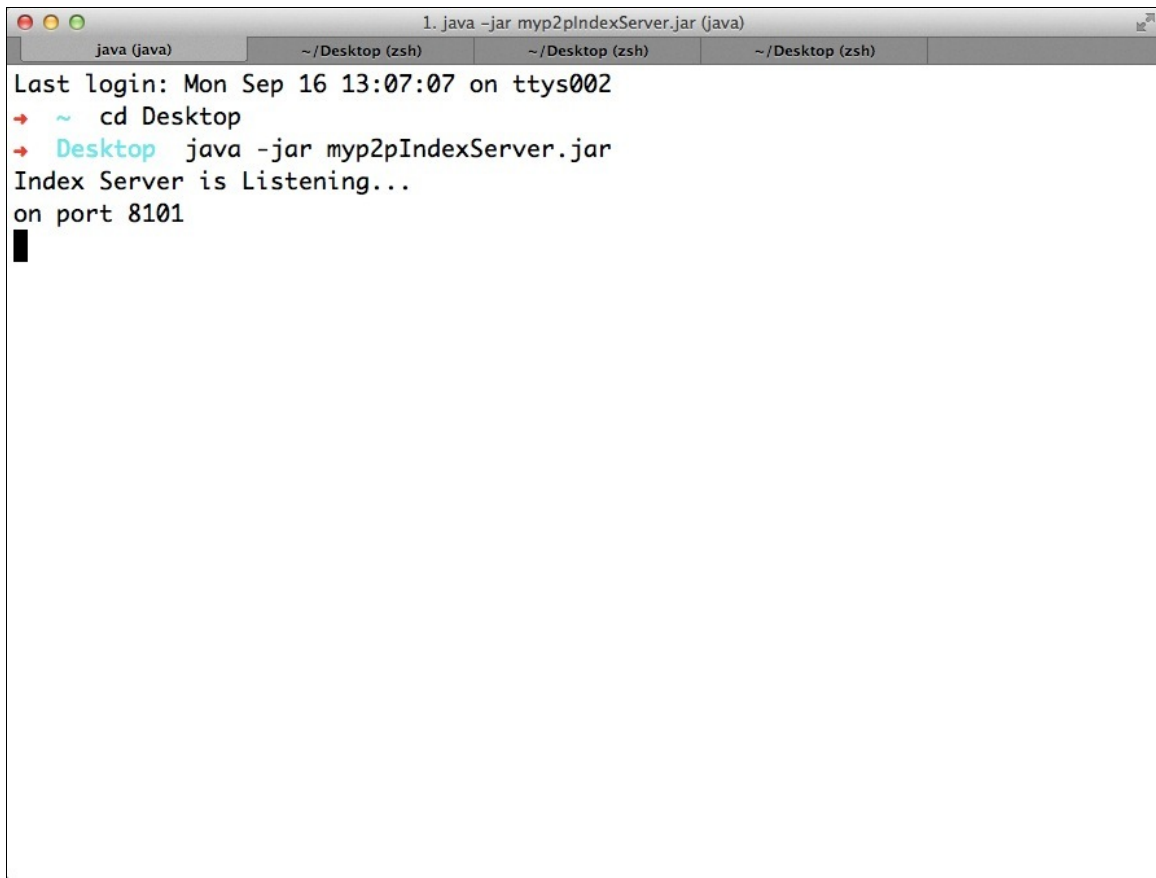
There are two executable jar files: myp2pIndexServer.jar and myp2pClient.jar.

User should firstly enter the directory that consists of these two files through terminal console.

A screenshot of a terminal window with a title bar showing the user '1. yangkklt@dhcp64-131-124-214' and the current directory '~/Desktop (zsh)'. The terminal has four tabs, all labeled '~ /Desktop (zsh)'. The main content area shows the text 'Last login: Mon Sep 16 13:07:07 on ttys002' followed by two commands: '~ cd Desktop' and 'Desktop', each preceded by a red arrow. A black cursor is positioned at the end of the second command.

```
1. yangkklt@dhcp64-131-124-214: ~/Desktop (zsh)
~/Desktop (zsh)  ~/Desktop (zsh)  ~/Desktop (zsh)  ~/Desktop (zsh)
Last login: Mon Sep 16 13:07:07 on ttys002
→ ~ cd Desktop
→ Desktop █
```

Input: java -jar myp2pIndexServer.jar (Notice: run server at the beginning)



A terminal window titled "1. java -jar myp2pIndexServer.jar (java)" with four tabs labeled "java (java)", "~/Desktop (zsh)", "~/Desktop (zsh)", and "~/Desktop (zsh)". The terminal output shows the login message "Last login: Mon Sep 16 13:07:07 on ttys002", followed by the command "cd Desktop" and the execution of "java -jar myp2pIndexServer.jar". The program outputs "Index Server is Listening..." and "on port 8101", with a cursor on the next line.

```
1. java -jar myp2pIndexServer.jar (java)
java (java) ~/Desktop (zsh) ~/Desktop (zsh) ~/Desktop (zsh)
Last login: Mon Sep 16 13:07:07 on ttys002
➔ ~ cd Desktop
➔ Desktop java -jar myp2pIndexServer.jar
Index Server is Listening...
on port 8101
█
```

Open another new terminal, input: `java -jar myp2pClient.jar`

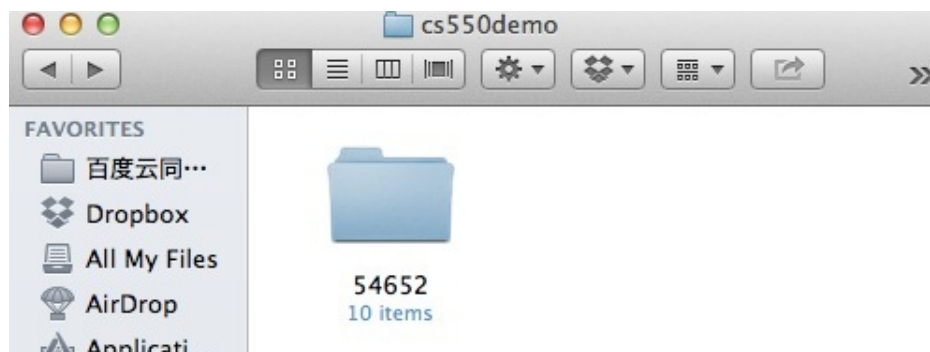
```
1. java -jar myp2pClient.jar (java)
Last login: Mon Sep 16 13:07:15 on ttys000
➔ ~ cd Desktop
➔ Desktop java -jar myp2pClient.jar
Peer ID : 54652
Sep 16, 2013 1:08:39 PM org.apache.commons.vfs2.impl.StandardFileSystemManager info
INFO: Using "/var/folders/rn/2wm3m20j5tg4wn4kwgn8f_wm0000gn/T/vfs_cache" as temporary files store.
Monitoring on Port : 56652
Please input operation index:
1: Registry
2: Search
3: Obtain
4: Quit
█
```

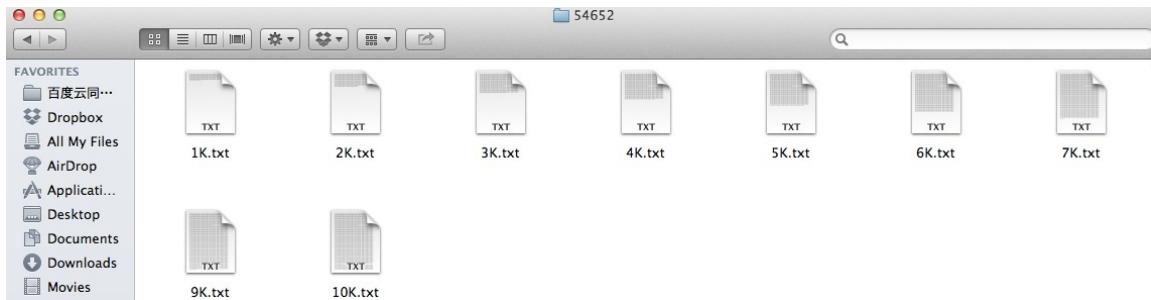
Then user is totally free to operate.

3. Test cases

a. User registry

User inputs 1 and enters. At this point, user should firstly copy the given files to the automatically generated folder. Once this step is finished, the file information will be uploaded to Server.





b. User search

We setup different cases of search, including search existed file, search non-existed file and search local file.

- i. This figure shows searching existed file 'ThreeK.txt', and Server returns the result: 54796-54799 (two port numbers)

```
Please input operation index:
1: Registry
2: Search
3: Obtain
4: Quit
2
Please input the name of the file you are looking for.
ThreeK.txt
Peer List is : 54796-54799-
```

- ii. This figure shows searching non-existed file 'aksdfjalksjdfklads', obviously no results

```
Please input operation index:
1: Registry
2: Search
3: Obtain
4: Quit
2
Please input the name of the file you are looking for.
aksdfjalksjdfklads
Peer List is :
```

- iii. This figure shows searching local file '1K.txt', there is only one result meaning this file only exists in local.

```

Please input operation index:
1: Registry
2: Search
3: Obtain
4: Quit
2
Please input the name of the file you are looking for.
1K.txt
Peer List is : 54652-

```

c. User download

We design three different download attempts: download existed file, download non-existed file, download local file, and many clients download a same file.

- i. Download an existed file. A Peer downloads file 'ThreeK.txt' from Peer 54799

```

Please input operation index:
1: Registry
2: Search
3: Obtain
4: Quit
3
Please input the name of the file you are looking for.
ThreeK.txt
Peers who has the given file:
54796-54799-
Please input the id of the client you want to download from :
54799

```

At the terminal of Peer 54799, showing the file 'ThreeK.txt' has been downloaded.

```

Download file is : ThreeK.txt

```

By checking the server, we can see this file exists in the first Peer's folder.

54652	[.DS_Store, 10K.txt, 1K.txt, 2K.txt, 3K.txt, 4K.txt, 5K.txt, 6K.txt, 7K.txt, 8K.txt, 9K.txt, ThreeK.txt]
54796	[.DS_Store, 10K.txt, 2K.txt, 4K.txt, 6K.txt, 8K.txt, FiveK.txt, NineK.txt, OneK.txt, SevenK.txt, ThreeK.txt]
54799	[.DS_Store, 2K.txt, 5K.txt, 7K.txt, 9K.txt, EightK.txt, FourK.txt, OneK.txt, SixK.txt, TenK.txt, ThreeK.txt]

- ii. Download a non-existed file.

```
Please input operation index:
1: Registry
2: Search
3: Obtain
4: Quit
2
Please input the name of the file you are looking for.
aksdfjalksjdfklads
Peer List is :
```

Again, we download the file 'aksdfjalksjdfklads'. Server refers that there is no such file existed.

iii. Many clients download a same file.

Peer 54796 and Peer 54799 download the same file 'SevenK.txt' from Peer 54652, and in the terminal 54652 showing two clients have downloaded file from it.

```
Please input operation index:
1: Registry
2: Search
3: Obtain
4: Quit
Download file is : SevenK.txt
Download file is : SevenK.txt
```

Check the server we can see all Peer has the same file 'SevenK.txt'.

54652	[.DS_Store, 10K.txt, 1K.txt, 2K.txt, 3K.txt, 4K.txt, 5K.txt, 6K.txt, 7K.txt, 8K.txt, 9K.txt, SevenK.txt, ThreeK.txt]
54796	[.DS_Store, 10K.txt, 2K.txt, 4K.txt, 6K.txt, 8K.txt, FiveK.txt, NineK.txt, OneK.txt, SevenK.txt, ThreeK.txt]
54799	[.DS_Store, 2K.txt, 5K.txt, 7K.txt, 9K.txt, EightK.txt, FourK.txt, OneK.txt, SevenK.txt, SixK.txt, TenK.txt, ThreeK.txt]