

# SSCC-FDEP File Transfer System Client Manual

**Document Version: 1.0**

**Document Secret Level: open**



January 2016

Document Information

File Name		SSCC-FDEP File Transfer System Client Manual	
Specification			
Revision Record			
6Date	Version	Author	Revision Specification
20160112	1.0	sscc	First Edition

## Content

1. Installation Guides .....	1
1.1 Installation Preparation .....	1
1.1.1 Download FxClient and FxTerm .....	1
1.1.2 FxClient Package Specifications .....	1
1.2 Operating Environment .....	2
1.2.4 Others .....	2
1.3 Installation Steps .....	3
Step 1 .....	3
Step 2 .....	3
1.4 Configuration File Specifications .....	4
1.5 Generate Ok Tagged file .....	9
2 Illustrations .....	10
3 Guide of Important Pages .....	12
3.1 Peer Users .....	12
3.2 Transmission Tule .....	13
3.3 Send Files .....	16

# 1. Installation Guides

## 1.1 Installation Preparation

### 1.1.1 Download FxClient and FxTerm

You can download the latest installation packages of fxclient and fxterm from <http://www.ssscc.com.cn/main/xzzq/jrsj/rjxz/>. FxClient is a console application program. FxTerm is a desktop program by which you can interact with fxclient conveniently. Table 1 shows a list of files in the FxClient program package.

### 1.1.2 FxClient Package Specifications

Table 1 fxclient package

Number	File Name	Specifications
1	<b>fxclient</b>	Storage directory of FxClient and its dependents
2	fxclient.exe	Executable file of fxclient
3	fxapi.dll	fxapi dll file
3	cert\ca.cer	ca.cer cannot be modified or renamed
4	ini\fxapi.ini	Configuration files for fxapi.dll, need to be modified.
5	ini\fxclient.ini	Configuration files for fxclient.exe, need to be modified.
6	ini\fxrule.ini	Configuration files related to transmission rules, can be modified through FxTerm
7	log	
8	\CreatFileList_win32.dll	It is used to add a menu item named “Create OK File” in the right-click menu.
9	\CreatFileList_x64.dll	It is used to add a menu item named “Create OK File” in the right-click menu.
10	\install_win32.bat	execute this to register menu item (“Create OK File”) in right-click menu
11	generation tool \install_x64.bat	execute this to register menu item (“Create OK File”) in right-click menu

## 1.2 Operating Environment

### 1.2.1 Supported Operating System

Windows Server 2003(32Bit), Windows Server 2008(64Bit); RHEL Server 6.2(64Bit); Windows Server 2008(64Bit) is recommended. FxTerm cannot be executed in a Linux without desktop environment.

### 1.2.2 Hardware requirements

**Processor:** 2 gigahertz (GHz) or faster

**RAM:** 2 gigabyte (GB) or more

**USB:** 1 USB Port or more

### 1.2.3 HUB Server Ports

For fxclientV4.0 and the later versions, fxclient connects to both port 7015(transmit data, long TCP link) and port 7016(transmit instruction, short TCP link) on HUB, These 2 ports should keep reachable.

For fxclientV3.0 and the earlier versions, only port 7015 is needed to be always reachable.

The link is one-side connection establish by FxClient, and the HUB would not connect to FxClient actively.

### 1.2.4 Others

**Production Environment:** apply for the User ID and EKey from SSCC

**Test Environment:** just User ID is fine.

Users are authenticated by using file-certificate or digital certificate stored in USB Ekey.

## 1.3 Installation Steps

Unpack the zip file, open “FxClient” folder, and double click FxClient.exe to run FxClient. open “FxTerm” folder, and double click the FxTerm.exe to run the FxTerm.

- **Three prerequisites of starting the FxClient:**

- (1) Ekey or file-certificate issued by SSCC.
- (2) “fxapi.ini” and “fxclient.ini” in the directory “ini” are correctly configured.  
Please follow the next two steps.

### Step 1

Use Ekey: install Ekey driver and plug the Ekey into FxClient server.

Or use file-certificate: put file-certificate into the cert directory.

### Step 2

For fxapi.ini, you need to configure the “IpPortMap” section:

```
[IpPortMap]

//Address mapping section, by format: “address before mapping” =
“address after mapping”. If there is no NAT conversion or multi-access,
just configure the “left hand side” = “right hand side”

// for example

// command connection

"10.10.22.158:7015"="192.168.22.158:7015"

"10.10.22.159:7015"="192.168.22.159:7015"

// data connection(data link)

"10.10.22.158:7016"="192.168.22.158:7016"

"10.10.22.159:7016"="192.168.22.159:7016"
```

For the fxclient.ini, you only need to configure the following six items:

```
[Config]
```

```

"UserID"="T0001"      // User ID

"UserPwd"="T0001"     // User login password

"Ekey"=""             // Ekey name

"EkeyPwd"=""          // Ekey password

"ListenIP"="127.0.0.1" // IP Address which FxTerm connect to

"ListenPort"="3001"    // Port which FxTerm connect to

```

Once fxapi.ini and fxclient.ini are both correctly configured, you can double click fxclient.exe to run FxClient and double click FxTerm.exe to run FxTerm to interact with FxClient.

### (3) Executable permission

FxClient and FxTerm can run in the same machine or in different machines. When the Operating system is RHEL server 6.2 of 64 bit Linux, make sure the FxClient and FxTerm have executable permission, so read, write and execute permissions should be assigned to all the files in the directory and its subdirectories of FxClient and FxTerm.

## 1.4 Configuration File Specifications

Fxapi.ini:

```

[ApiConfig]

"RecvFilePath"=" ../temp/" // Temporary directory for receiving files

"FetchFilePath"=" ../fetch/" //Directory to store files fetched from the HUB

"UseFetchPath"="1"          //Store files from HUB according to "FetchFilePath"

"ProcessThreadNum"="3"      // Number of pre-processing threads

"TransferThreadNum"="2"     //Number of threads in a single transfer component

"DataLinkType"="2" //Data link type: "1" for long links(default), "2" for disconnect
when connection is timeout

"DataLinkLogoutTimeOut"="30" // logout after idle 30 seconds

"IsSoftCert"="0"           // use soft certificate or not

```

"IsCoverRecvFile"="0" // if the receiving file's name conflict with the existing files in the receival path, this flag is to decide whether delete or rename the old file.

"SaveHistLibDay"="30" // Days of history library file keep in disks

"OnceSendCmdCount"="100" // When resending command related to task, send several each time

"MaxSendQueueLength"="100000" // The maximum length of the current queue for the sending task

"SaveTaskDay"="7" //Days of task saved in the queue.

"NotCompressExts"=".bz.bz2.rar.zip.7z" //Files containing the suffix are not compressed

"FileCompressFlag"="1" //File compressing flag: besides the above defined suffix files, other files are compressed or not.

"PkgCompressFlag"="1" // Package compress flag: Whether to compress the data packet of transfer file while sending them, if the file has been compressed (the task is compressed, or the file contains a compressed suffix), this option does not work.

[CityNode]

"Shenzhen"="09:00|15:30|64|2000" // The lines to Shenzhen node, 64K bandwidth can be used from 9:30am to 3:30pm, and 2M bandwidth can be used in other time period.

[IpPortMap]

//Ip address mapping configuration: address before conversion = address after conversion. If there is no NAT conversion or multi line access, just configure the left = right

// command connection

"10.10.22.158:7015"="192.168.22.158:7015"

"10.10.22.159:7015"="192.168.22.159:7015"



```
// data connection

"10.10.22.158:7016"="192.168.22.158:7016"

"10.10.22.159:7016"="192.168.22.159:7016"

[LOG]

"LockType"="1"           // Lock type, process lock or thread lock

"Level"="1"             // log level

"Display"="3"           //Log display: 1- file, 2- screen, 3-screen and file

"LogDir"="..\\log"       // Directories to save logs

"LogName"="fxapi.log"    // Log name

"MaxFileCount"="20"      //Max number of the log files in one day

"MaxFileSize"="200000000" // Max size of a single log file
```

fxclient.ini

```
[Config]

"UserID"="K0001"         // User ID

"UserPwd"="K0001"        //User password

"Ekey"=""               // Ekey Name

"EkeyPwd"=""            // Ekey password

"ListenIP"="127.0.0.1"   // IP Address which FxTerm connect to

"ListenPort"="3001"      // Port which FxTerm connect to

"ScanFlag"=".ok"         // send file flag

"AllowFlagBeforeDataSec"="0" //When the modified time of one file is later than
its .ok file in several seconds you setup,still allow to send this file

"SendSuccessFlag"=""    // Send file success generation flag

"RecvSuccessFlag"=""     //Receive file success generation flag
```

"IsMngData"="0"	// data management switch
"MngDataType"="0"	//Data management type,0-copy, 1-remove, 2-delete
"BackupPath"="c:\backup"	// data management backup path
"SaveDataDay"="365"	// days of saving data
"StartMonitor"="0"	//Output monitor files or not.
"MonUpdateSec"="60"	//time interval of monitor files output
"MonVersion"="20130701"	// Monitor file format version
"MonTasksCount"="1000"	//Output unsucccess tasks count
"MonFilePath"="..\mon"	// Monitor file output path
"CpuAlarmEnable"="0"	// Enable CPU alarm or not
"CpuAlarmParam"="80"	// CPU alarm threshold parameter
"MemAlarmEnable"="0"	// Enable memory alarm or not
"MemAlarmParam"="90"	// Memory alarm threshold parameter
"DiskAlarmEnable"="0"	// Enable disk alarm
"DiskAlarmParam"="80"	// Disk alarm threshold parameter
"IsAutoDeleteLog"="1"	// Auto delete logs and notification files or not
"SaveLogNoticeDay"="30"	//Days of saving logs and notification files
"IsCallInterface"="0"	// When a task is completed, call the interface or not
"CallInterfacePath"=""	//The path of interface file called
"IsPasswdEncrypt"="0"	// Encrypt the password or not
"IsLoadDefaultRule"="0"	//Load the default rule or not
"IsCheckRecvDir"="1"	//Check receive path is the same as other send path, or the sub directory of other send path
"StartDEncry"="0"	//Enable encryption/decryption module or not
"AllowMaxFileCount"="1000"	//The max send files allowed by Term manully.

```

"NoticeMsgFilePath"=" ../notice"      //Notification files path

[SysUser]

"admin"="admin|1|管理员"      //Term user name=password|role|term description.
Role: 0-general, 1-administrator

[LinkUser]

// link user information, User ID = User description

"K0007"="招商"                "K0007" = China Merchants Ban

[RuleTemplate]

"SendPath"="c:\send\<RULEID>\<RULENAME>\<YYYYMMDD>"

"RecvPath"="c:\recv\<RULEID>\<RULENAME>\<YYYYMMDD>"

"SubDir"="1"                  //Check sub directories or not

"ScanMode"="0"                //Scan mode: 0-scan send tag every several minutes, 1-
scan and send directory triggered by a certain time point

"TimeInterval"="1,0,00:00,23:59"    //Enable time interval to send every 1minutes,
time interval: 00:00-23:59

"TimeActive"=""              //Every time point is divided by ';'

"Priority"="1"                //Priority

```

"ScanFlag"=".ok" is a scan flag option. FxClient will check all transmission rules ("ScanMode"="0"), scan the send path. FxClient will send files when find the files and their corresponding ok tagged files (etc. data.txt and data.txt.ok) in the send path. The corresponding ok tagged files will be deleted by Fxclient.

fxrule.ini

```

[#HUB#]          // Transmission Rule name

```

```

"RuleDescr"="中枢" //Rule description
"RuleType"="1" //Rule type:1-Single type, 2-Business type, 3-Broadcast type
"LinkUsersCount"="1" //Peer users count
"LinkUsers0"="#HUB#|中枢" // Peer users list
"SendPath"="./hub" // send path
"RecvPath"="./hub" // receive path
"SubDir"="1" // Contain a sub directory to send( 0 or 1)
"ScanMode"="0" // scan mode: 0-scan send tag (*.ok) every several minutes, 1- scan and
send directory triggered by one or more time points
"TimeInterval"="1,1,00:00,23:59" // Enable time interval to send every 10minutes, time
interval: 00:00-23:59
"TimeActive"="" // time points list
"SendScanYesterdayDir"="0,00:00" // whether to scan the yesterday's directory, and send file
before the time configured.
"RecvToYesterdayDir"="0,00:00" // whether to save in the yesterday's directory while receive
file before the time configured.
"Priority"="1" // Priority: 1~3
"IsCompress"="0" //Compress option: "1" –will compress, "0" –will not compress.

```

## 1.5 Generate Ok Tagged file

\*.ok file generation tool is a tool of Windows platform to facilitate users to right click the mouse to generate the corresponding \*.ok file.

For Win32 OS: execute "install\_win32.bat" to register menu item ("Create OK file") in right-click menu.

For Win64 OS: execute "install\_win64.bat" to register menu item ("Create OK file") in right-click menu.

Notes: The last modification time of the \*.ok files should be later than the last modification time of the data files. It is suggested that \*.ok files and data files should be generated on the same server, to avoid the possibility that \*.ok files will be created earlier than the data file due to the inconsistency of different server times.

## 2 Illustrations

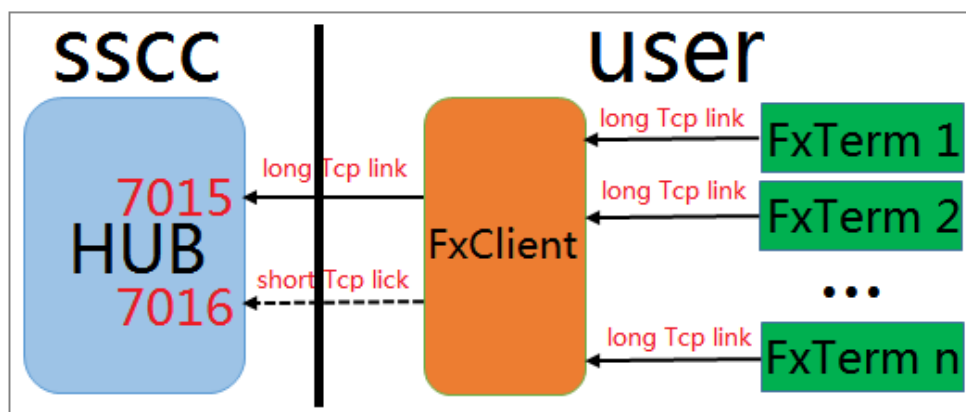


Figure 1, HUB, FxClient and FxTerm connection schematic diagram

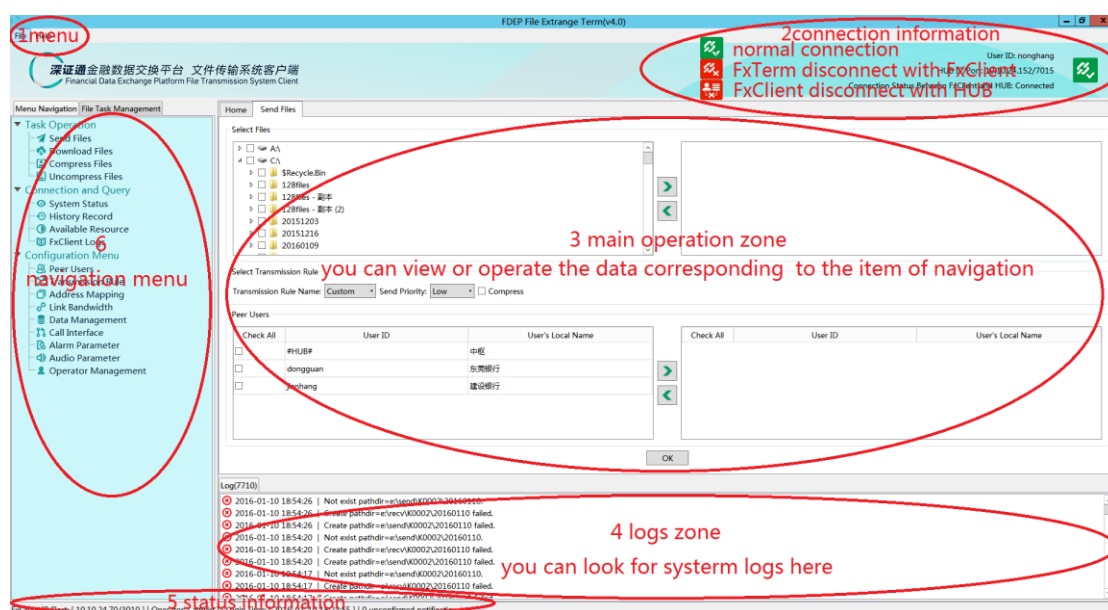


Figure 2, FxTerm main Window

Home Send Files

Message from Shao Zhen Securities Communication CO.,LTD  
 咨询电话：8:30-17:00(0755-23826666),17:00-23:00(0755-23826217)

**1 SSCC Announcement**  
 show the latest information

Notifications

Sequence Number	Received Time	Confirmed Person	Confirmed Time
20160111_01	2016-01-11 16:55:30	admin	2016-01-11 16:55:30
2016011109165804	2016-01-11 09:44:49	admin	2016-01-11 16:55:33
2016011109165903	2016-01-11 09:36:09		
2016011109165901	2016-01-11 09:31:37		

**2 Notification Message**

Double click the unconfirmed notice with a red color, and then the specific notification pops out. Click "OK" to confirm the message and the confirmed message's color will become normal. Double click the confirmed message, and you can view the notification and the name of the personnel who confirmed this notification.

Log(1146)

2016-01-11 16:52:32 | Task send finished [ID=0111174166770000nonghang243b6c21], File=[13a.txt], Source UserID=[nonghang], Dest UserID=[ianhang(建设银行)]

2016-01-11 16:52:32 | Task send finished [ID=0111174166760000nonghang24348621], File=[13a.txt], Source UserID=[nonghang], Dest UserID=[dongguan(东莞银行)]

2016-01-11 16:52:32 | Task send finished [ID=0111174166810000nonghangdd124608], File=[13a.txt], Source UserID=[nonghang], Dest UserID=[#HUB#(中航)]

2016-01-11 16:52:32 | File[C:\sendfile\13a.txt] dest[ianhang] upload success.

2016-01-11 16:52:32 | File[C:\sendfile\13a.txt] dest[dongguan] upload success.

2016-01-11 16:52:32 | File[C:\sendfile\13a.txt] dest[#HUB#] upload success.

2016-01-11 16:52:29 | Task send finished [ID=0111174166750000nonghang90aee9a6], File=[13a.txt], Source UserID=[nonghang], Dest UserID=[#HUB#(中航)]

2016-01-11 16:52:29 | Task send finished [ID=0111174166800000nonghang110be9b3], File=[13a.txt], Source UserID=[nonghang], Dest UserID=[ianhang(建设银行)]

2016-01-11 16:52:29 | Task send finished [ID=0111174166700000nonghang110e02b2], File=[13a.txt], Source UserID=[nonghang], Dest UserID=[dongguan(东莞银行)]

Figure 3, Home Page

## 3 Guide of Important Pages

### 3.1 Peer Users

Double click navigation menu item “Peer Users”, show as Figure 4.

Check All	User ID	User's CU Name
<input type="checkbox"/>	dongguan	东莞银行
<input type="checkbox"/>	ftcs1010	ftcs1010测试账户
<input type="checkbox"/>	ftcs1011	ftcs1011测试账户
<input type="checkbox"/>	ftcs1012	ftcs1012测试账户
<input type="checkbox"/>	ftcs1013	ftcs1013测试账户
<input type="checkbox"/>	ftcs1014	ftcs1014测试账户
<input type="checkbox"/>	ftcs1015	ftcs1015测试账户
<input type="checkbox"/>	ftcs1016	ftcs1016测试账户
<input type="checkbox"/>	jianhang	建设银行
<input type="checkbox"/>	jiapz1	jiapz1
<input type="checkbox"/>	liyangyang1	liyangyang1

Total: 13

Check All	User ID	User's Local Name
<input type="checkbox"/>	#HUB#	中恒
<input type="checkbox"/>	dongguan	东莞银行
<input type="checkbox"/>	jianhang	建设银行

Total: 3

Submit

Figure 4 peer users page

On the left table you can see the selectable peer user ID, and the right table displays the selected peer user ID. The “file task management” of navigation bar (Sending, Sent, Receiving and Received) will list corresponding user ID in the right table. Select an item in the left table and click button ➡, the peer user ID will be added to the right table. If you click button ⬅, the selected peer user ID on the right table will be removed. Click “Submit” button to submit change to FxClient. Double click any line on the right table, a dialogue box of modifying peer user pops out. In the dialogue box, users can modify the user name (by default, the user name set by HUB). Finally, click “OK” button so that the modified information can be saved to FxClient. Enter a user ID and click “search”, you can locate the first user ID that matches successfully.

Modify the Peer Users

User ID: jianhang

User's Local Name: 建设银行

OK

Figure 5 modify peer users page

### 3.2 Transmission Tule

Double click “Transmission Rule”, you will see the page as shown in Figure 6. Click “Set Default Rules”, you can configure the transmission rule template. You can add, modify or delete rules on this page.

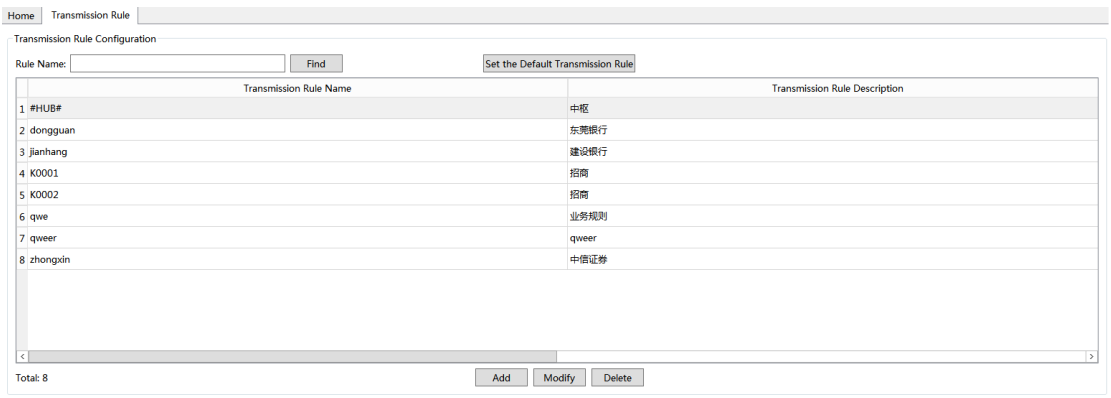


Figure 6 transmission rules page

Add Transmission Rules: the dialogue box of “Add Transmission Rule” shows in Figure 7.

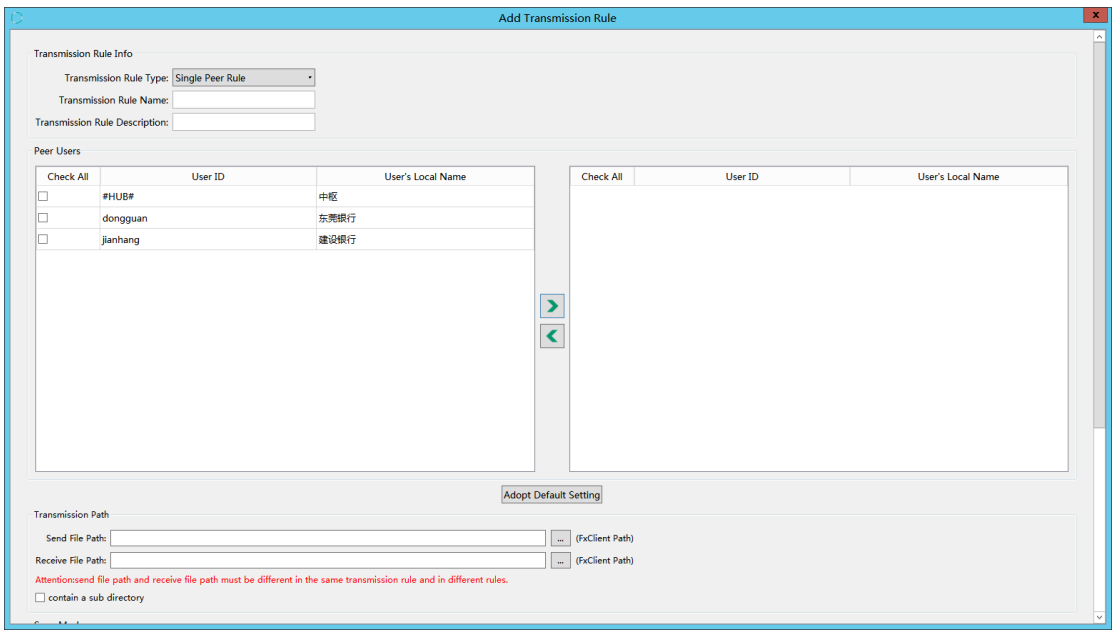


Figure 7 add transmission rules Page

- 1) Transmission Rule Type:
  - (1) Single User Rule
  - (2) Business Type Rule(one or multiple peer users)



(3) Broadcast Rule(all SSCC users)

2) Transmission Rule Name:

If you choose “Single User Rule”, transmission rule name box is not editable and it will be auto filled in according to the peer user ID.

If you choose “Business Type Rule” or “Broadcast Rule”, the box is editable and you should fill in it.

3) Transmission Rule Description:

If you choose “Single User Rule” and, transmission rule description box is not editable and it will be auto filled in according to the peer user ID.

If you choose “Business Type Rule” or “Broadcast Rule”, the box is editable and you should fill in it.

4) Peer Users:

When you choose “Single User Rule”, only one peer user should be added to the right table;

When you choose “Business Type Rule”, one or more peer users should be added to the right table;


When you choose “Broadcast Rule”, no peer users should be added to the right table.

**Notice: before this operation, you should add peer users at page “Peer Users”.**

5) Adopt Default Rules:

Click “Adopt Default Rules” to set some parts of the current transmission rule automatically according to the default setting.


6) Send File Path:

Click button  to select a directory as a place to store the files needed to be sent. When FxClient scans the directory, the stored files will be sent according to the corresponding transmission rule. The following wildcards are supported in the path:

<RULEID><RULENAME><USERID><USERNAME><YYYYMMDD>.

Notice: the send path requires to be absolute path (full path) and can't contain “./”, “../”, “.\”, “..\” and “\\”.

#### 7) Receive File Path:

Click button  to select a directory as a place to store the received files, and when FxClient receives a file, it will put the file into the directory according to the transmission rule. The following wildcards is supported in the path : <RULEID><RULENAME><USERID><USERNAME><YYYYMMDD>.

Notice: the receive path requires to be absolute path (full path) and can't contain “./”, “../”, “.\”, “..\” and “\\”.

#### 8) Contain a sub directory:

After checking this option, if the file in a sub directory, the path information will be sent to the destination users. Destination users will construct sub directory tree according to the sending path to store the received file in it.

For example

Send directory: send/**a/b/c/file.txt**;

Receive directory: rcv/**a/b/c/file.txt**

#### 9) Scan Mode:

Scan mode is a mode to scan the send directory and send the stored files. There are two types of scan modes you can choose.

#### 10) Detect the files to be sent automatically

You can set a time interval or a time period to scan the send file path and send files automatically. According to this mode, FxClient gets the information that the files are prepared to be sent by the “ok” tagged files. For example, if you put file “1.txt” into the send file path, and generate file “1.txt.ok” in the path, when FxClient scans the path, the file “1.txt” will be put into the sending queue, and the file “1.txt.ok” will be removed.

#### 11) Scheduled sending

These scheduled time points can be divided by a semicolon. FxClient will scan and send all the files in the path automatically at the certain time point.

Users do not need to generate the “ok” tagged files.

12) Allow scanning the yesterday’s sent directory:

Check this option and set a time point, before the time point, the FxClient will scan both today’s and yesterday’s send directory and send the files.

13) Allow saving the current files to yesterday’s directory:

Check this option and set a time point, before the time point, FxClient will save the received files to yesterday’s receive directory.

### 3.3 Send Files

Double click” send by hand”, users can see the interface as shown in Figure 8 in business zone of the main view.

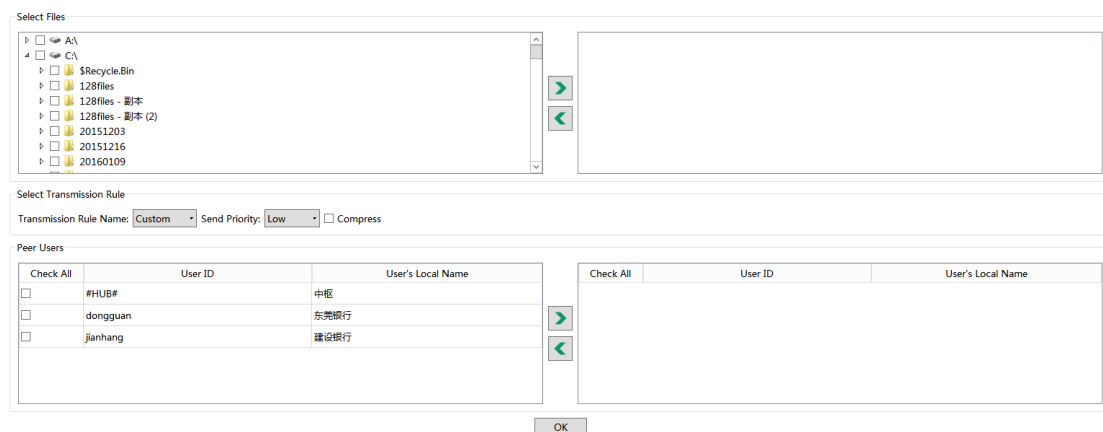


Figure 8, send files page

On this page, the administrator or monitor can send files manually.

- 1) Select files or directories and click the button➡, you can add the files or the files contained in the directories to the file list widget. Click button◀ remove the selected files on the file list widget.
- 2) You can choose “Transmission Rule Name”, “Send Priority” and “Compress” to send files. If “Transmission Rule Name” is selected “Custom”, the combo box of “Send Priority” and checkbox of “Compress” are enabled. After selecting the peer users, click “Submit” button to inform FxClient to send these files to the selected peer users. During Selecting Peer Users, you can click ➡ to add peer users from left table to right table, and the right table contains the users that the selected files will be sent to. You can click ◀ to

remove the selected peer users from the right table.

- 3) If you choose other transmission rules, the combo box of “Send Priority” and checkbox of “Compress” are disabled, and the right table will be added automatically.