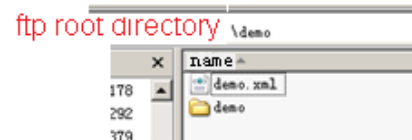
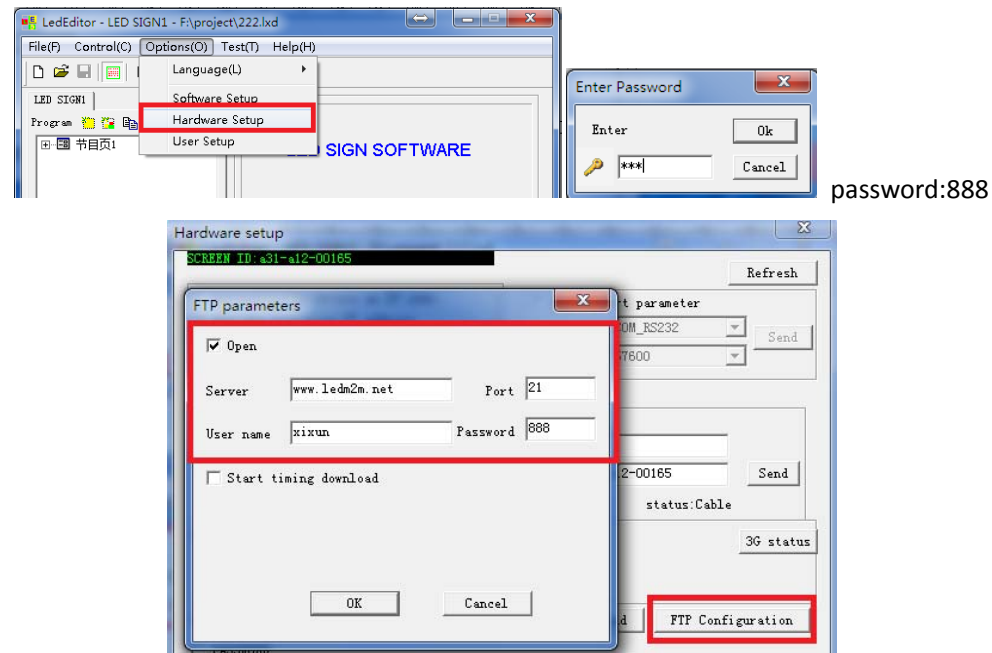


## Download program from ftp protocol

**Step1. Build FTP service, Create project folder in the root directory of FTP; demo.xml file in Demo folder is project file, the materials in demo folder.**



**Step2, using LEDeditor software to setup parameters for controller**



**Step3, send command of sending program from FTP to tell controller getting program from the specific FTP:**

Protocol head 3bytes	Comm and 1byte	Reserve d 4bytes	Main body length 4bytes	Main body							Ch ec kc od e 1b yt es
0x7e0x7e0x55	0x05	0x0000 0000		<b>APP application Response way (328bytes ) 0x00</b>	Program size (UINT )	Main version (UINT )	Sub-vers ion (UINT )	width (UINT )	Height (UINT )	Progra m name charac ter string (need end up with '\n' )64b ytes	

#### Response

Protocol 3bytes	Command 1byte	Reserved 4bytes	Main body length 4bytes	Main body	Check code 1bytes
0x7e0x7e0x55	0X45	0x00000000		0 :success; 1: failed	

Check algorithm: add all data from beginning of “command” filed to the end of “main body” together to get sum in bytes and then invert.

Attention: when you build FTP services, customers could choose their familiar FTP service software or use the provided,  
Please refer to Attachment for how to build FileZilla\_Server;




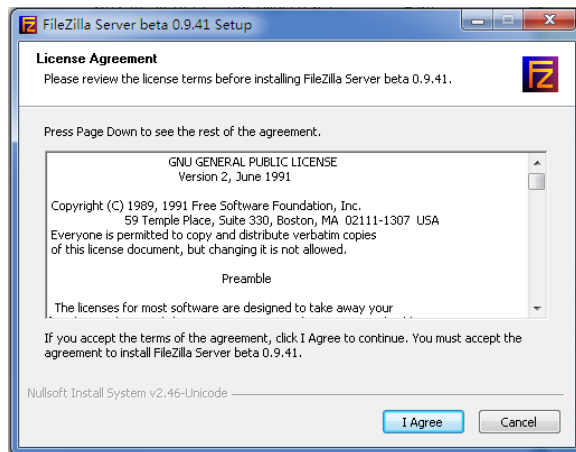
---xixun

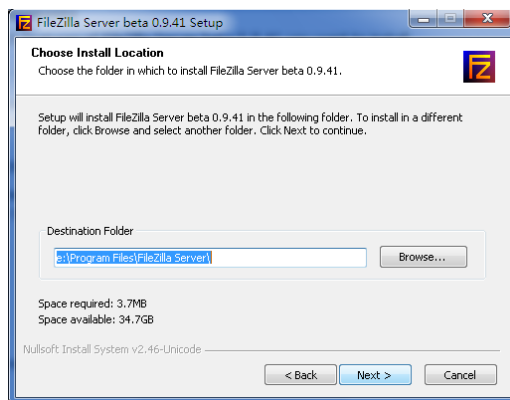
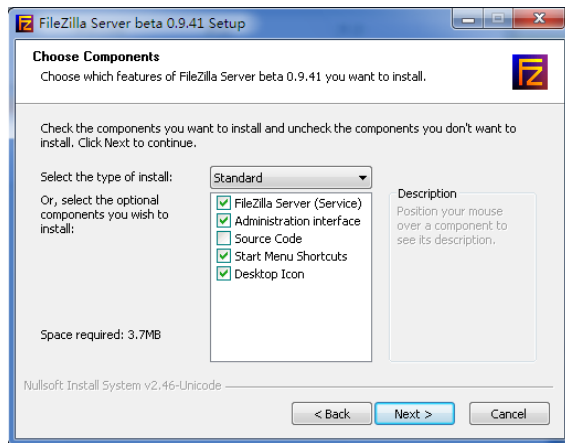
Please refer to <xml project file structure instruction.doc > for xml project file.

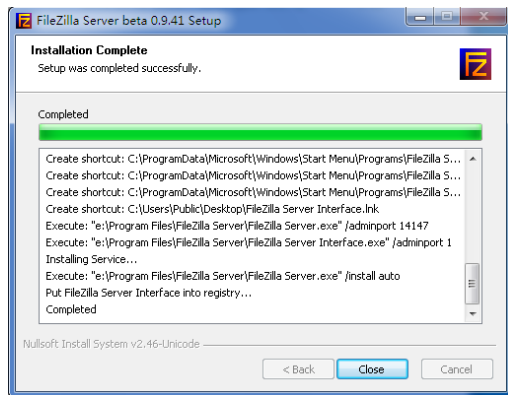
Attachment:

Steps of building FTP server:

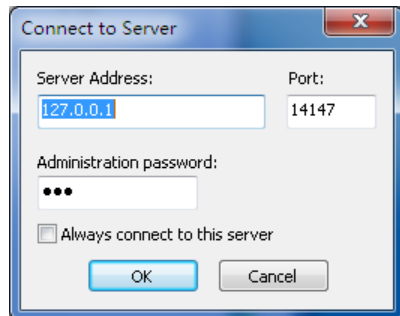
Double click on  FileZilla\_Server-0\_9\_41.exe FTP server software and start to install it.



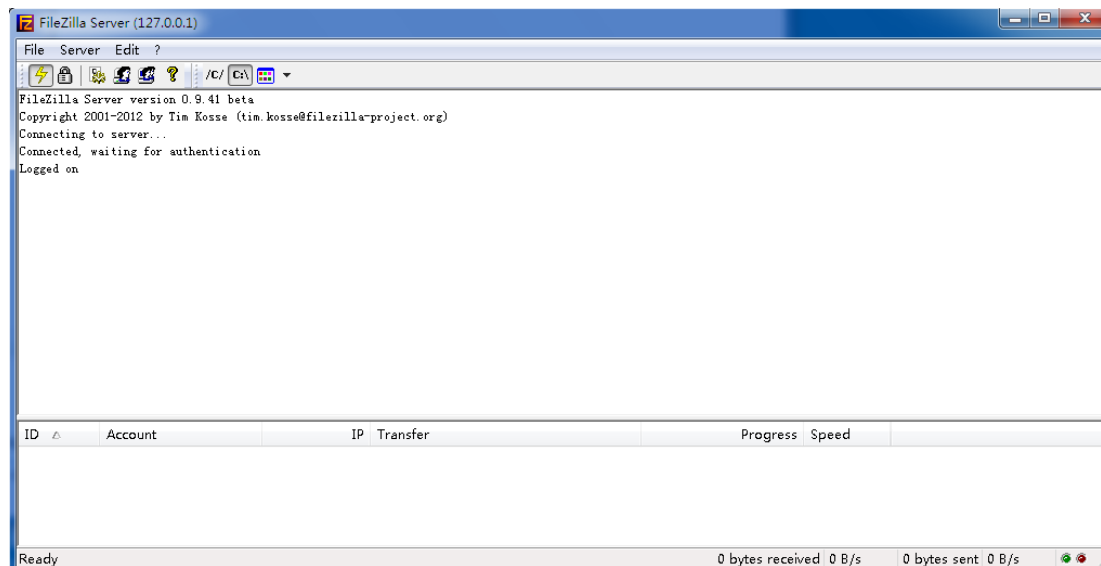




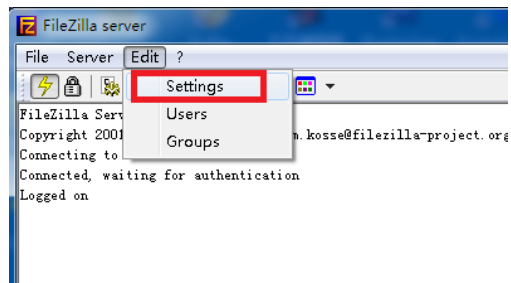
After installing it, click on shortcut in desktop and run FTP server, picture in below:

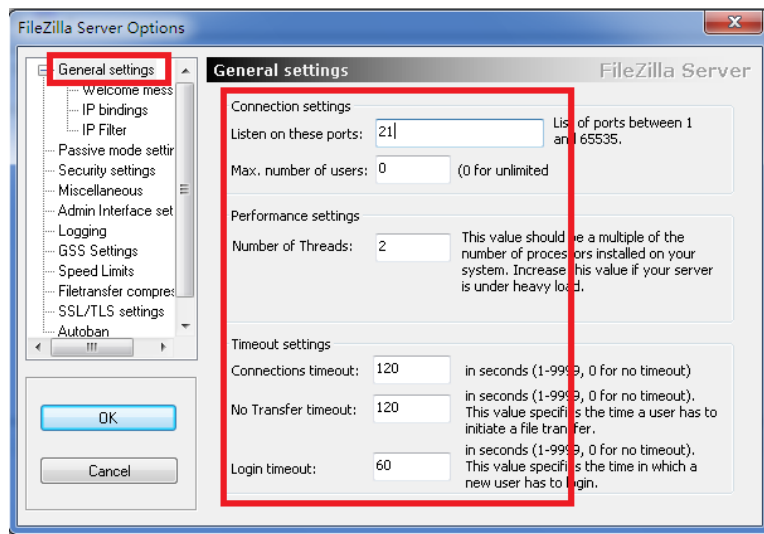


Press OK button and then following picture will pop up:

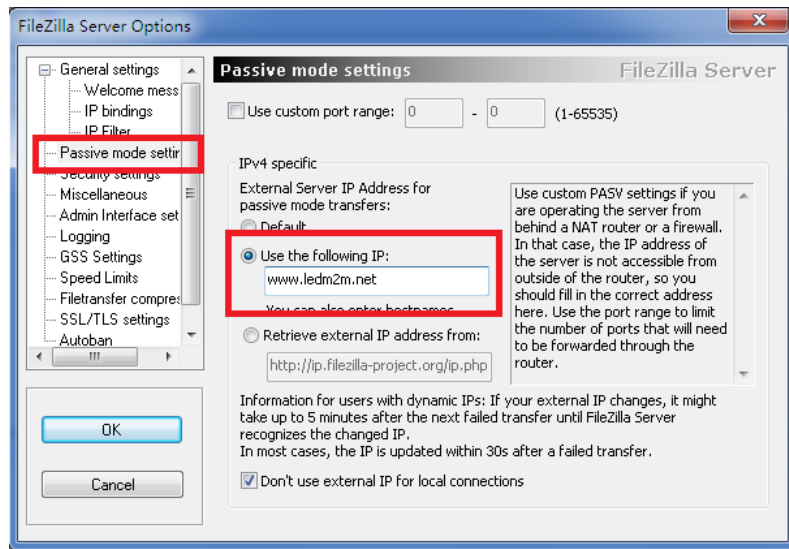


Set FTP server parameters, click on Menu bar→Edit→Settings, picture in below:

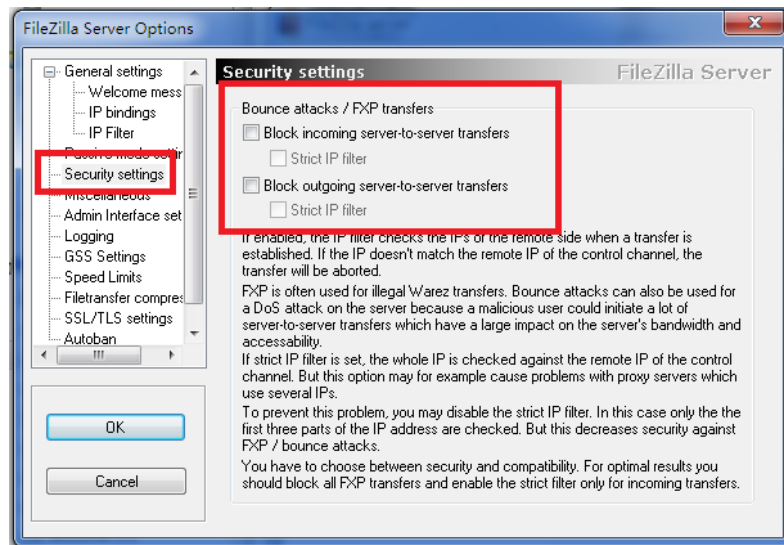




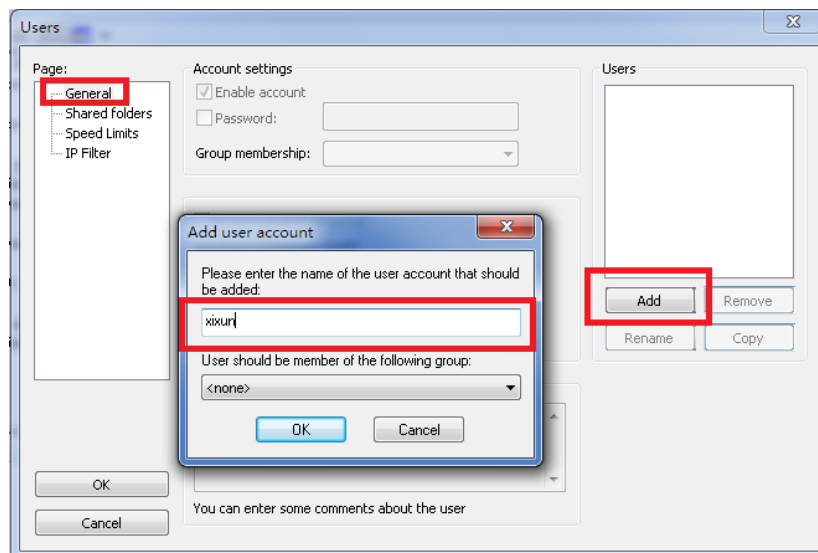
Setup Passive mode:



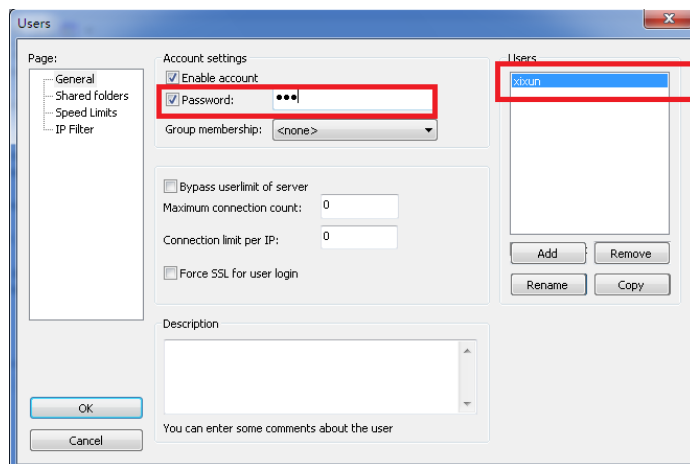
Security Setting:

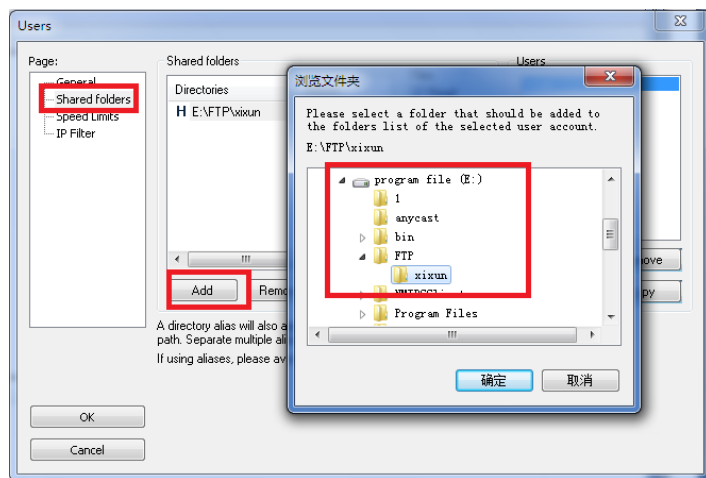


Add a user in FTP, click on Menu bar→ Edit→User:

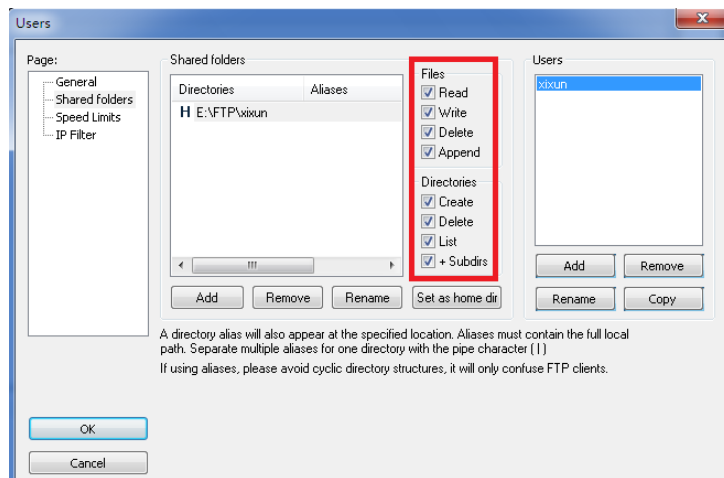


Then assign a folder as the root directory for this user:





Set access rights for this user, picture in below:



Press on OK button and close this dialogue box.

Set port forwarding in Router, Forwarding port 21 to server, IP address is the server's IP in LAN.

Login the router and then enter port forwarding, enter the port range 21 for private IP (that is the LAN IP address of the server PC).

Note: each router's interface is different maybe; here we just take one for example:

Product Page : DIR-615
Firmware Version : 7.09

DIR-615 //
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP

Port Forwarding
Filter Rules
Firewall & DMZ
Advanced Wireless
Advanced Network
Routing
Logout
Internet Online
Reboot

### ADVANCED PORT FORWARDING RULES

The Advanced Port Forwarding option allows you to define a single public port on your router for redirection to an internal LAN IP Address and Private LAN port if required. This feature is useful for hosting online services such as FTP or Web Servers.

### ADVANCED PORT FORWARDING RULES

Remaining number of rules that can be created: 19

			Port	Traffic Type
<input checked="" type="checkbox"/>	Name <input type="text" value="LedDataServer"/> <input type="button" value="Application Name"/>	Public Port <input type="text" value="21"/>	Private Port <input type="text" value="21"/>	<input type="text" value="Any"/>
	<input checked="" type="checkbox"/>	Private IP <input type="text" value="192.168.0.102"/>	Public IP <input type="text" value="192.168.0.102"/>	
	<input type="checkbox"/>	Name <input type="text"/> <input type="button" value="Application Name"/>	Public Port <input type="text"/>	<input type="text" value="Any"/>
		Private IP <input type="text"/>	Public IP <input type="text"/>	
		Name <input type="text"/>	Public Port <input type="text"/>	

#### Helpful Hints...

- Check the **Application Name** drop-down menu for a list of pre-defined applications that you can select from. If you select one of the pre-defined applications, click the arrow button next to the drop-down menu to fill out the appropriate fields.
- This feature allows you to open a range of ports to a computer on your network. To do so, enter the first port in the range you would like to open on the router in the first box under **Public Port** and last port of the range in the second one. After that you enter the first port in the range that the internal server uses in the first box under **Private Port** and the last port of the range in the second.
- To open a single port using this feature, simply enter the same number in both boxes.

Until now, FTP server is complete.