

## Using TFTP Server in windows

1. Install Tftpd32/Tftpd64 in Windows PC.

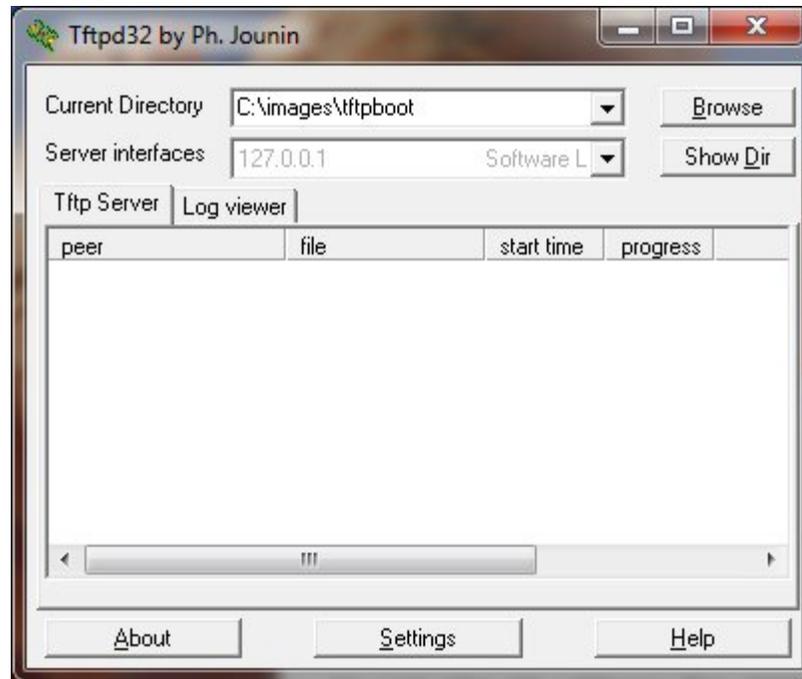
For Windows 32 bit:

[http://tftpd32.jounin.net/download/Tftpd32\\_SE-4.50-setup.exe](http://tftpd32.jounin.net/download/Tftpd32_SE-4.50-setup.exe)

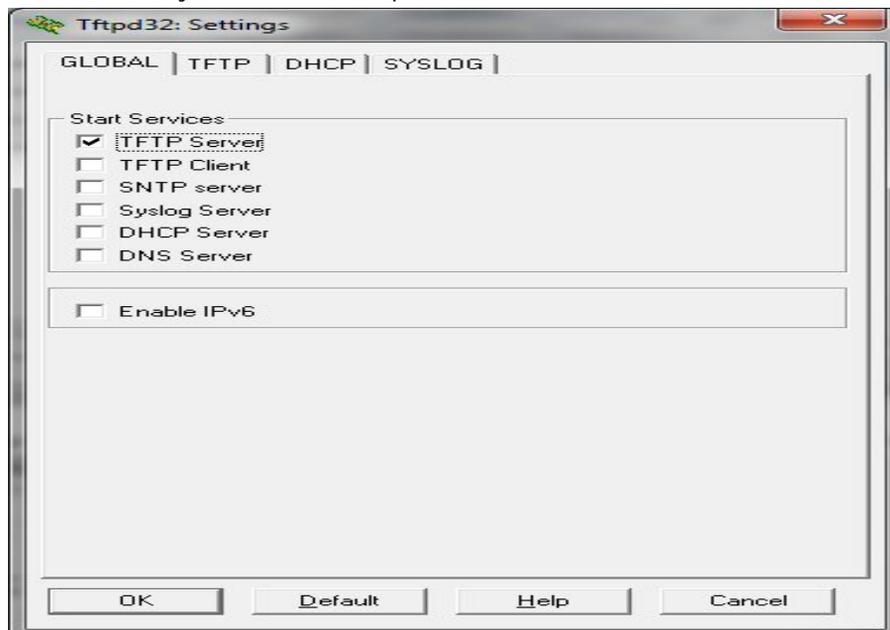
For Windows 64 bit:

[http://tftpd32.jounin.net/download/Tftpd64\\_SE-4.50-setup.exe](http://tftpd32.jounin.net/download/Tftpd64_SE-4.50-setup.exe)

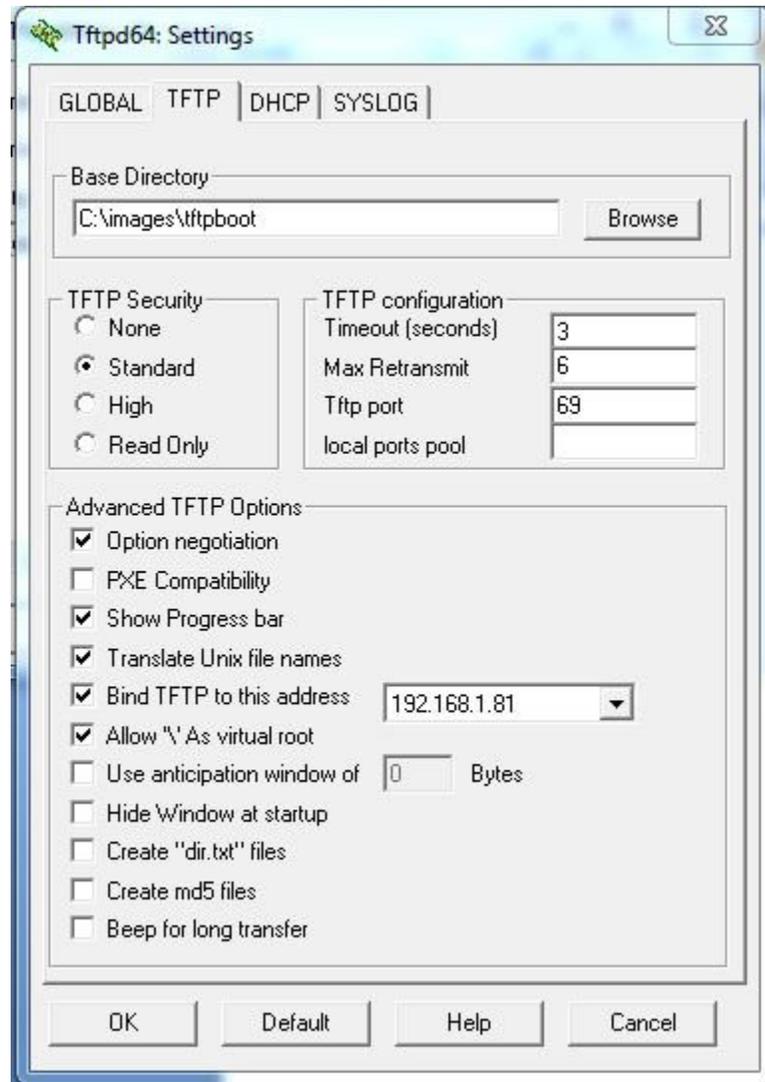
2. Once the Tftpd32 program is open, click on Settings button.



3. Put a check mark only to TFTP Server option. Remove checkmark from all other options.



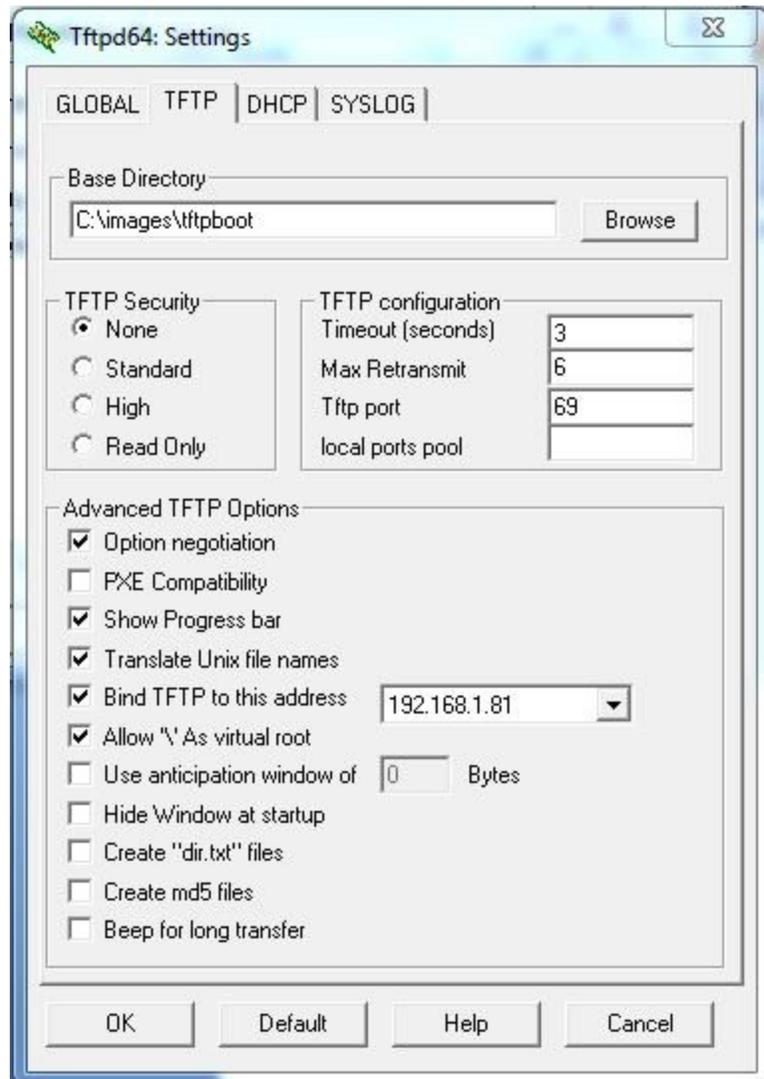
4. Create a TFTP Directory in your computer and copy the files which you want to transfer to board or any Other PC. This TFTP directory is the Base directory for your TFTP server. (IN My PC C:\images\tftpboot is Base Directory).
5. Click on TFTP tab, the window will look as shown below.



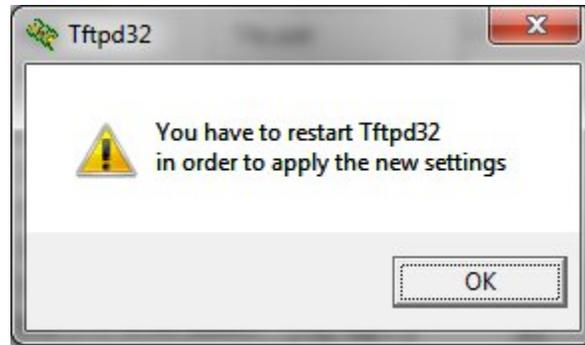
6. Click on Browse button to specify Base Directory. You need to specify the Base Directory of the TFTP Server. Select TFTP folder in your laptop/PC as the Base Directory. Remember that all the files transferred using TFTP Server will be placed in this folder.  
Ex: place the 'root.ubi' in this folder suppose if it need to copy from PC to NAND flash of board
7. Under TFTP Security, select the option None.
8. Here comes a very important step. Now we are going to bind an IP address to the TFTP Server. To set the IP address for TFTP server, please select the option Bind TFTP to this address then select the IP address available for you. I select 192.168.1.81 here as it was the only option

available to me. You may get a different IP address, please use the IP address available in the drop down window.

9. Select all options which are selected in below snap.

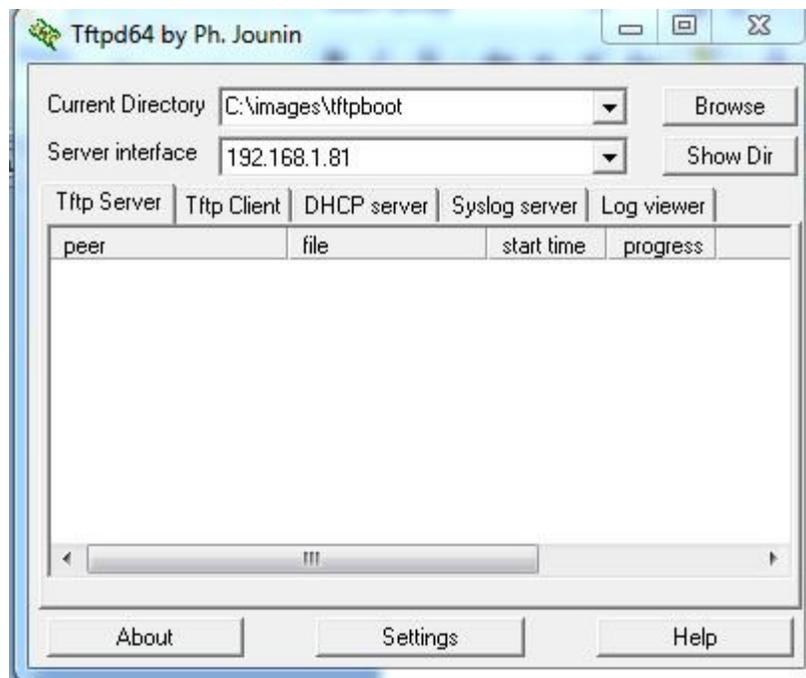


10. Once you have performed all the above steps, Click on OK. Now you will receive a window asking to restart Tftpd32 to apply the new settings. Click on OK.

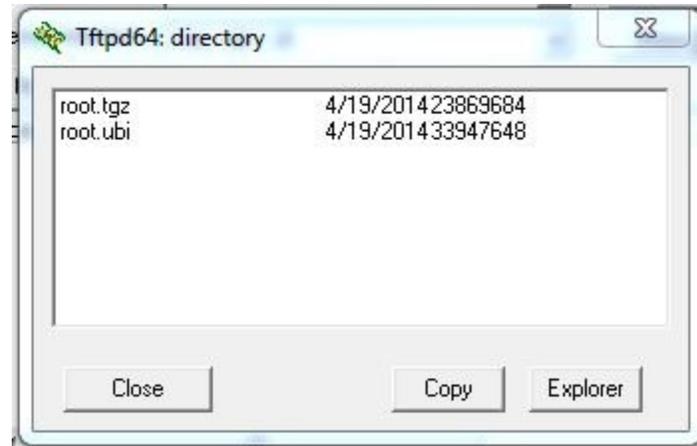


11. **Note:** Please remember that the Tftpd32 application should be running when any TFTP related job is done. If you close this application, TFTP server will be terminated. If you closed automatically please Reopen Tftpd32 application.

12. Once the programs opens, just ensure that you selected same IP address for Server Interface.



13. Then Click on ShowDir, It will show your files (Which you want to transfer). If the file is not exist then click on Explorer button then copy that from your PC to TFTP Base directory.



14. After successfully completed the above all steps. Then go to BOARD Terminal and give below command to get the file by using TFTP Server.

**Note:** Ethernet Cable should connect to board and host PC.

15. To copy images to NAND being in bootloader follow the steps

while booting board press 'enter' and stop at barebox prompt as follows

A screenshot of a PuTTY terminal window titled "COM4 - PuTTY". The terminal displays the following boot logs:

```
Board: Phytec phyBOARD-WEGA-AM335x
omap-hsmmc omap4-hsmmc0: registered as omap4-hsmmc0
mci0: registered disk0
cpsw cpsw0: detected phy mask 0x3
mdio_bus: miibus0: probed
eth0: got preset MAC address: D0:FF:50:E6:71:1E
i2c-omap i2c-am33xx0: bus 0 rev0.11 at 100 kHz
probe buswidth
nand: ONFI param page 0 valid
nand: ONFI flash detected
nand: NAND device: Manufacturer ID: 0x2c, Chip ID: 0xf1 (Micron MT29F1G08ABADAH4
), 128MiB, page size: 2048, OOB size: 64
malloc space: 0x83ff4000 -> 0x87ff3fff (size 64 MiB)
running /env/bin/init...

Hit m for menu or any other key to stop autoboot: 3

type exit to get to the menu
barebox@Phytec phyBOARD-WEGA-AM335x:/
barebox@Phytec phyBOARD-WEGA-AM335x:/
barebox@Phytec phyBOARD-WEGA-AM335x:/
barebox@Phytec phyBOARD-WEGA-AM335x:/
```

16. Enter the commands as

- ➔ 'ifup eth0' - for enabling the port eth0
- ➔ 'devinfo eth0'- which shows the device information

```
COM4 - PuTTY
nand: ONFI flash detected
nand: NAND device: Manufacturer ID: 0x2c, Chip ID: 0xf1 (Micron MT29F1G08ABADAH4
), 128MiB, page size: 2048, OOB size: 64
malloc space: 0x83ff4000 -> 0x87ff3fff (size 64 MiB)
running /env/bin/init...

Hit m for menu or any other key to stop autoboot:  3

type exit to get to the menu
barebox@Phytec phyBOARD-WEGA-AM335x:/
barebox@Phytec phyBOARD-WEGA-AM335x:/
barebox@Phytec phyBOARD-WEGA-AM335x:/ ifup eth0
barebox@Phytec phyBOARD-WEGA-AM335x:/ devinfo eth0
resources:
driver: none
bus: none

Parameters:
    ipaddr = 192.168.1.196
    serverip = 192.168.1.81
    gateway = 192.168.1.1
    netmask = 255.255.255.0
    ethaddr = D0:FF:50:E6:71:1E
barebox@Phytec phyBOARD-WEGA-AM335x:/
```

NOTE: Make sure that 'server ip' which is your host ip should be same as <192.168.1.81>

17. Now enter

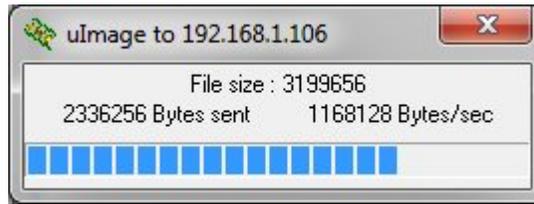
→ tftp root.ubi

```
COM4 - PuTTY
), 128MiB, page size: 2048, OOB size: 64
malloc space: 0x83ff4000 -> 0x87ff3fff (size 64 MiB)
running /env/bin/init...

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barebox@Phytec phyBOARD-WEGA-AM335x:/
barebox@Phytec phyBOARD-WEGA-AM335x:/ ifup eth0
barebox@Phytec phyBOARD-WEGA-AM335x:/ devinfo eth0
resources:
driver: none
bus: none

Parameters:
    ipaddr = 192.168.1.196
    serverip = 192.168.1.81
    gateway = 192.168.1.1
    netmask = 255.255.255.0
    ethaddr = D0:FF:50:E6:71:1E
barebox@Phytec phyBOARD-WEGA-AM335x:/ tftp root.ubi
100Mbps full duplex link detected
[#####]
```



This copies the image 'root.ubi' from the 'tftp server' to RAM memory of the board

18. you can see by giving 'ls' command

```
COM4 - PuTTY
Hit m for menu or any other key to stop autoboot: 3
type exit to get to the menu
barebox@Phytec phyBOARD-WEGA-AM335x:/
barebox@Phytec phyBOARD-WEGA-AM335x:/
barebox@Phytec phyBOARD-WEGA-AM335x:/ ifup eth0
barebox@Phytec phyBOARD-WEGA-AM335x:/ devinfo eth0
resources:
driver: none
bus: none

Parameters:
  ipaddr = 192.168.1.196
  serverip = 192.168.1.81
  gateway = 192.168.1.1
  netmask = 255.255.255.0
  ethaddr = D0:FF:50:E6:71:1E
barebox@Phytec phyBOARD-WEGA-AM335x:/ tftp root.ubi
100Mbps full duplex link detected
[#####]
barebox@Phytec phyBOARD-WEGA-AM335x:/ ls
.      ..      dev      env      mnt      root.ubi
tmp
barebox@Phytec phyBOARD-WEGA-AM335x:/
```

19. Now to copy the same 'root.ubi' to NAND flash, first erase that particular partition by entering

→ erase /dev/nand0.root.bb

Following command copies the file from RAM to NAND in that particular partition

→ cp root.ubi /dev/nand0.root.bb

```
barebox@Phytec phyBOARD-WEGA-AM335x:/
barebox@Phytec phyBOARD-WEGA-AM335x:/ ls
.      ..      dev      env      mnt      root.ubi
tmp
barebox@Phytec phyBOARD-WEGA-AM335x:/
barebox@Phytec phyBOARD-WEGA-AM335x:/
barebox@Phytec phyBOARD-WEGA-AM335x:/ erase /dev/nand0.root.bb
barebox@Phytec phyBOARD-WEGA-AM335x:/ cp root.ubi /dev/nand0.root.bb
barebox@Phytec phyBOARD-WEGA-AM335x:/
```

20. Now reset the board, so that it will take the new root file system which was copied.

References Links:

1. [http://tftpd32.jounin.net/tftpd32\\_download.html](http://tftpd32.jounin.net/tftpd32_download.html)
2. <http://www.tricksguide.com/how-to-setup-a-tftp-server-tftpd32-windows.html>