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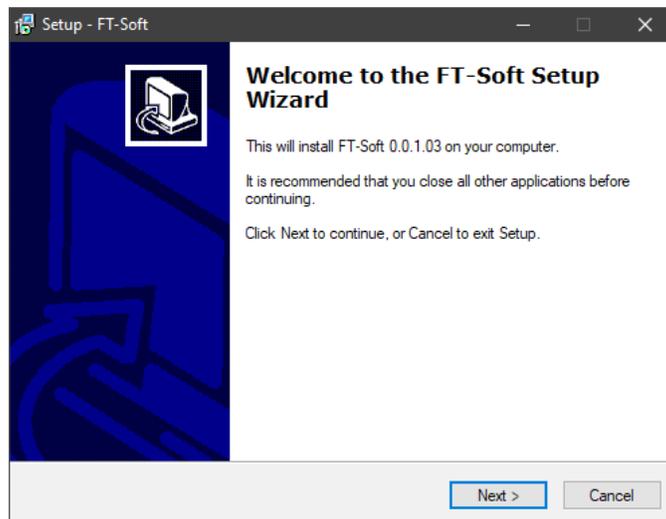
## FT-Soft Quick Start Guide

6/16/2020

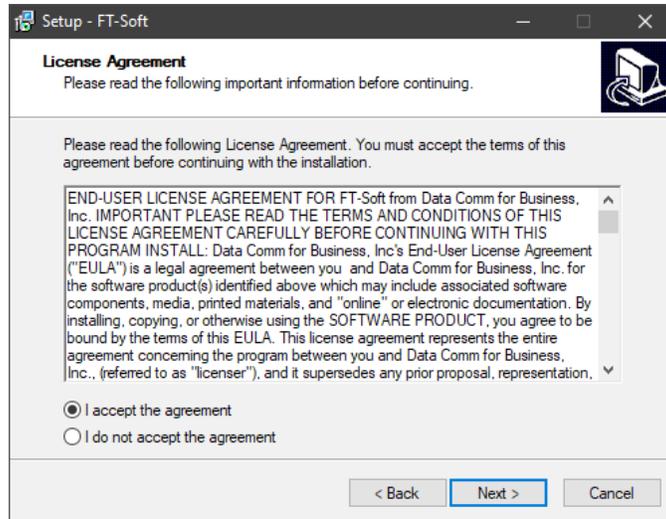
### Installing FT-Soft

Only an administrative user may install FT-Soft.

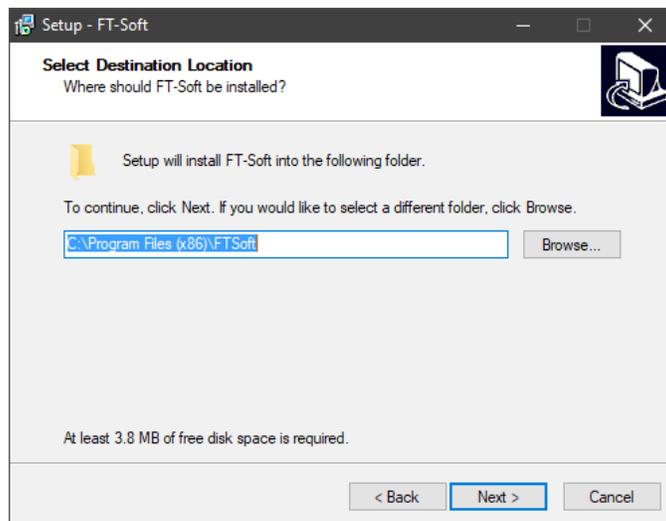
1. Insert the CDROM and locate the installation program named **FTSoftSetup\_?\_???.exe** (where ?\_?? is the version number).
2. Double click on the installation program to start the automated installation process.



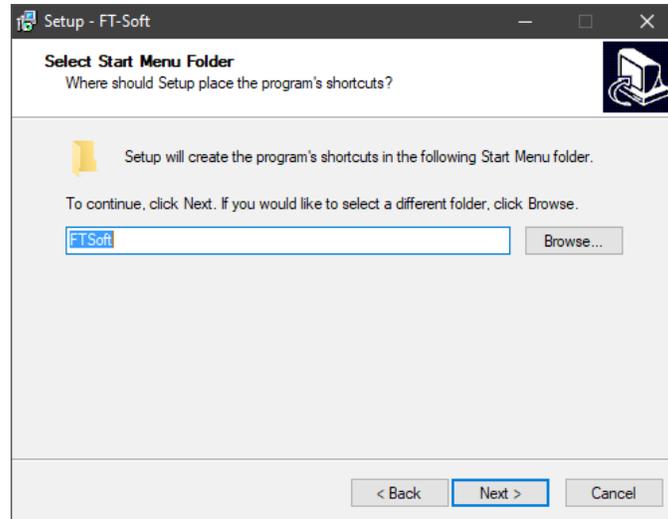
3. The license agreement will be displayed. If the terms are acceptable, click on “**Next**”.



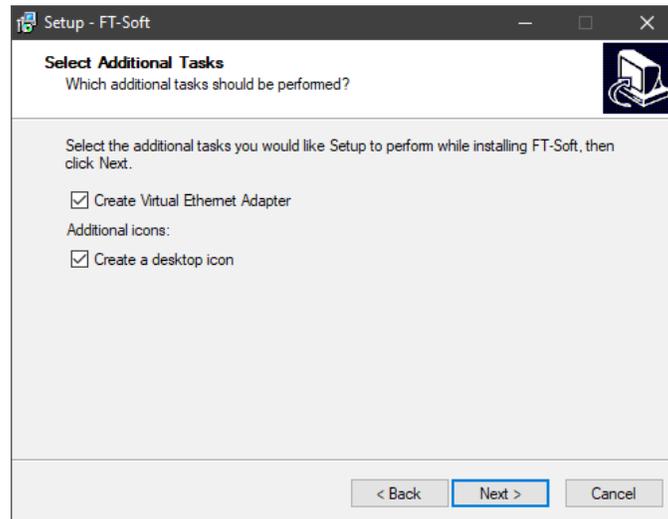
4. The “Select Destination Location” window will be displayed. This is the folder that will contain the FT-Soft program. Select a destination folder if the default isn't appropriate, and press “Next”.



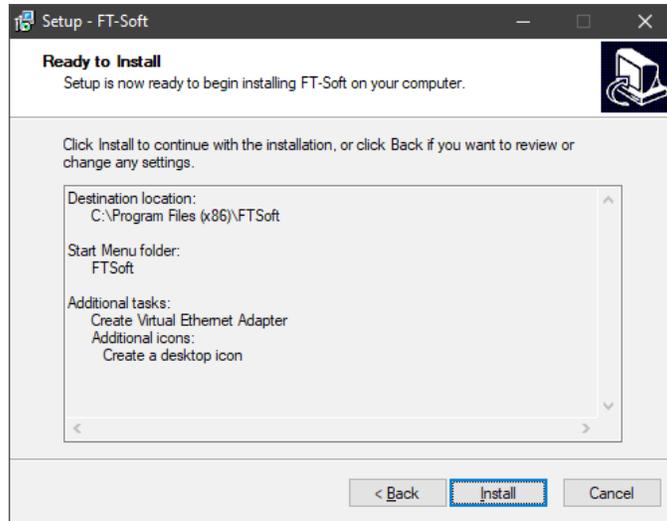
5. The “Select Start Menu Folder” window will be displayed. This is the folder that will contain the program shortcut. Select a destination folder if the default isn't appropriate, and press “Next”.



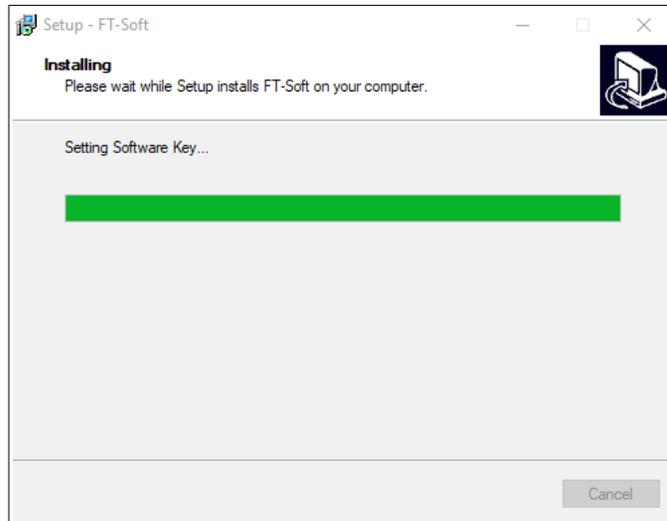
6. The “Select Additional Tasks” window will be displayed. Be sure “Create Virtual Ethernet Adapter” is selected if this is the first time you are installing the software or if you purchased a second key and wish to create a second virtual adapter. **Note: If this is a re-install or update, do NOT check this box.** If a desktop icon is desired, also select that check box. Then press “Next”.



7. The “Ready to Install” window is displayed. If all locations are correct, click on the “Install” button. If changes are required, click on the “Back” button and make appropriate changes before proceeding.



8. The “Installing” informational window will be displayed while the program is automatically installed.

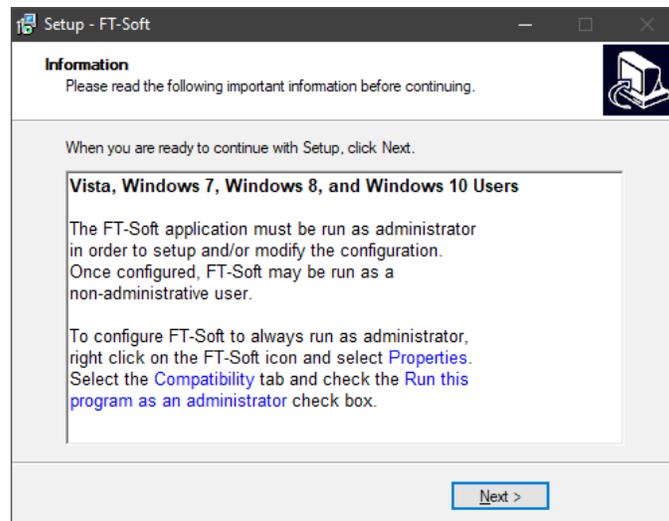


9. If you selected the “Create Virtual Ethernet Adapter” box, you will be asked to enter the **Software Key**. Enter the 16 alpha numeric key that came with the FT-Soft program. Then press “OK” to continue. Please note that each copy of FT-Soft must have a unique software key per the license agreement. Attempting to use the same key on multiple PCs will confuse the server device, resulting in frequent communication failures.

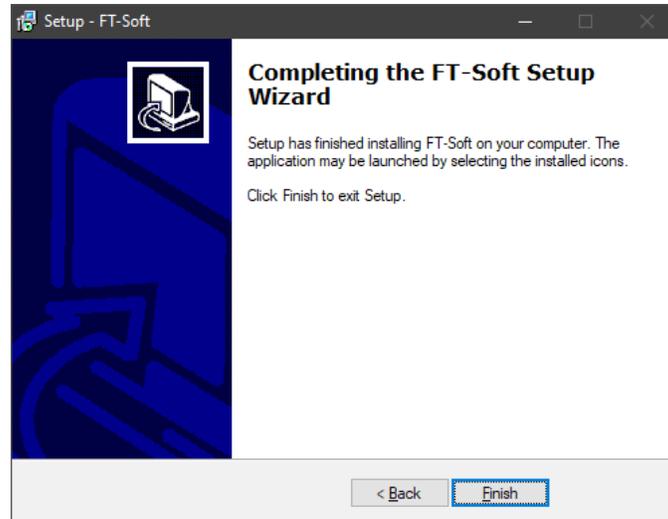


10. You may see a screen that tells you that the software “has not passed the Windows Logo testing”. Press “**Continue Anyway**”.

11. After installation, the Setup Wizard will display any import information. Please review the information before proceeding.



12. The “Completing the FT-Soft Setup Wizard” screen will be displayed. Click on the “**Finish**” action button to close the installer.

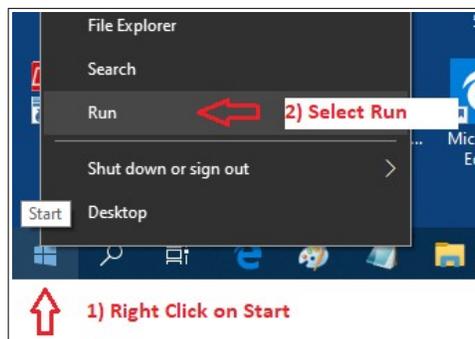


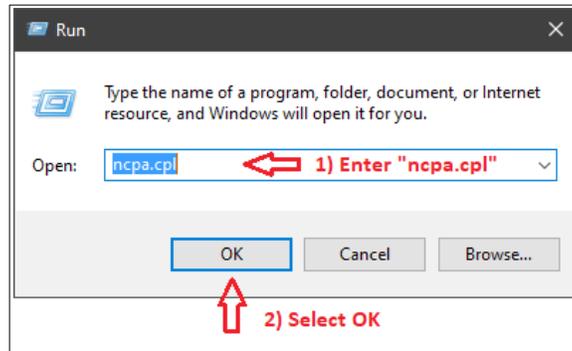
Installation is now complete. Before running FT-Soft, configure the DCB Virtual Ethernet Adapter with an IP address and subnet mask.

## Configuring the DCB Virtual Ethernet Adapter

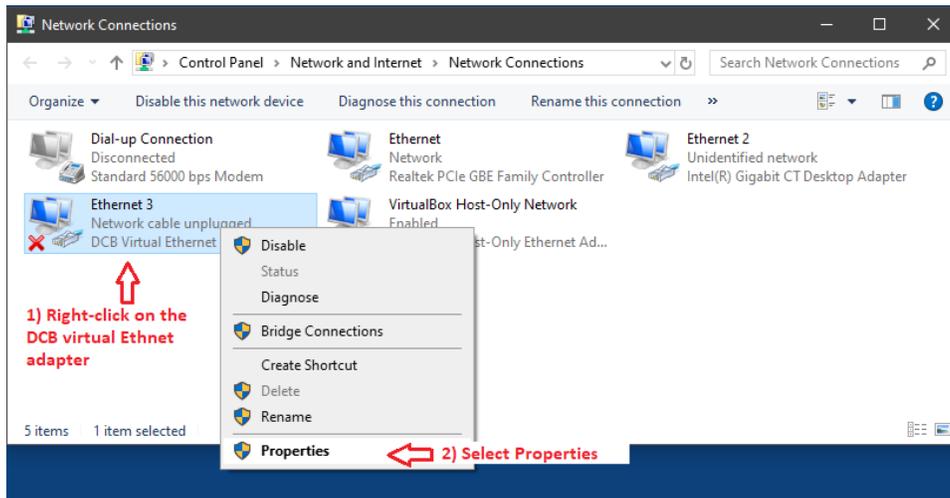
FT-Soft creates a Virtual Ethernet Adapter on your system. Before running FT-Soft, this Virtual Ethernet Adapter should be configured appropriately for your application. Configuring the Virtual Ethernet Adapter is similar to configuring a physical Network Adapter. However, it is recommended that the Virtual Ethernet Adapter have a static IPv4 configuration and NOT be configured to “obtain an address automatically”. Trying to obtain an address automatically will override the physical Network Adapter’s gateway resulting in a routing failure.

1. Right-click on *Start* and select *Run*. Run the command “*ncpa.cpl*” to open the Network Connections window.

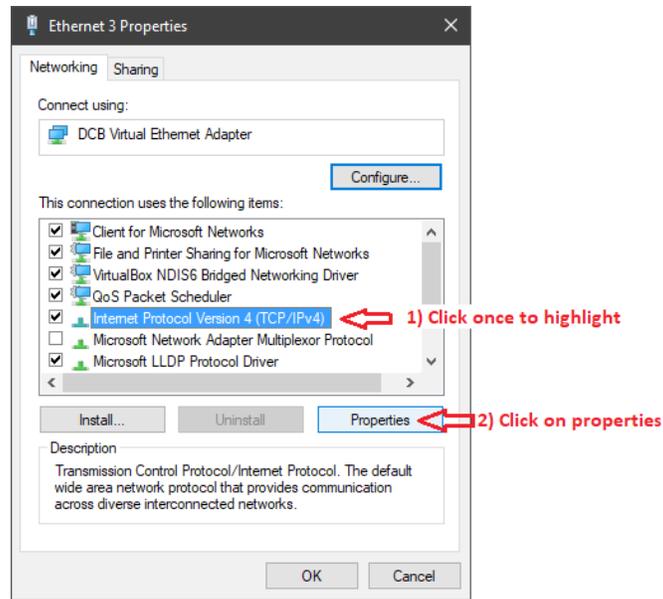




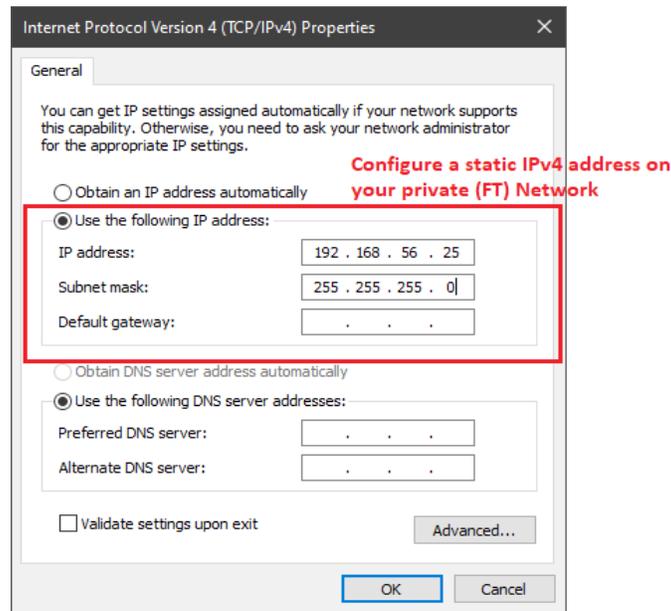
2. Locate and right-click on the DCB Virtual Ethernet Adapter. Select “Properties”.



3. Highlight “Internet Protocol Version 4” and click on “Properties”.



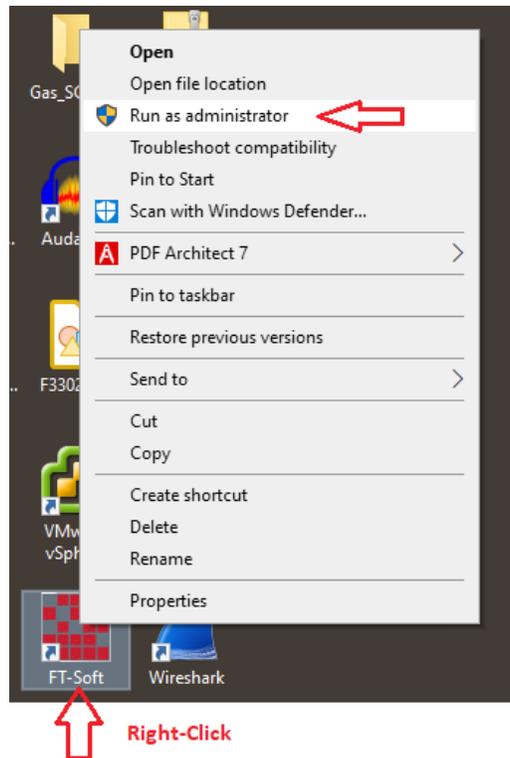
4. Configure the Virtual Adapter with a static address on your private FT network. The IP address and Subnet mask shown below is for demonstration purposes and will likely differ for your application. However, **do NOT set a default gateway**. Doing so will interfere with the active default gateway setting for the physical network adapter.



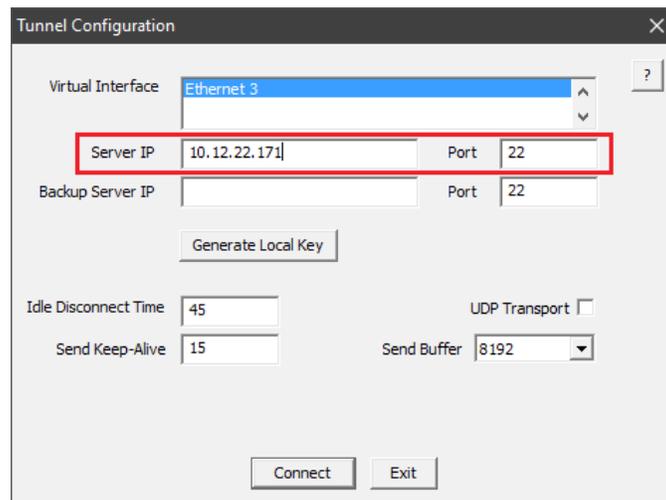
5. Exit the IPv4 properties by pressing “OK”, then exit the Ethernet properties by pressing “OK”.

## Configuring FT-Soft

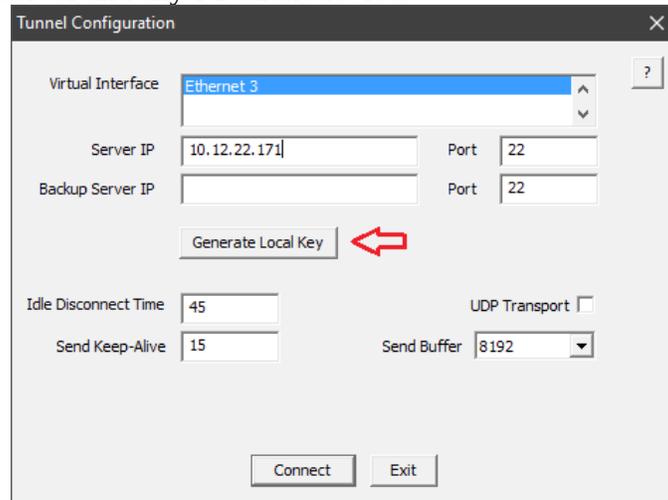
To modify the FT-Soft configuration, FT-Soft must be run as an administrator. Locate the FT-Soft Icon, right click the icon and select *Run as administrator*.



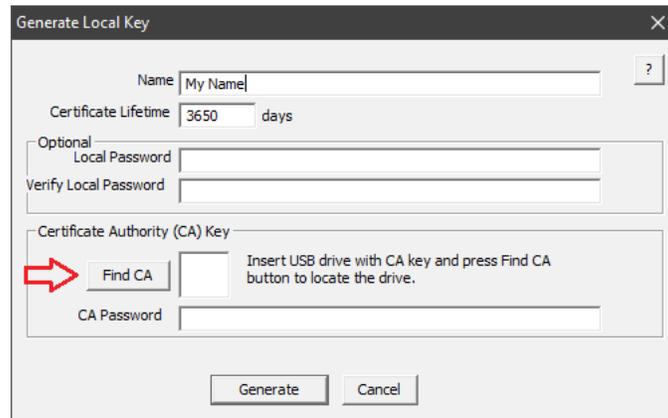
Configure the IP address and Port number of the FT Server. This should correspond to the FT Server's Public address and port.



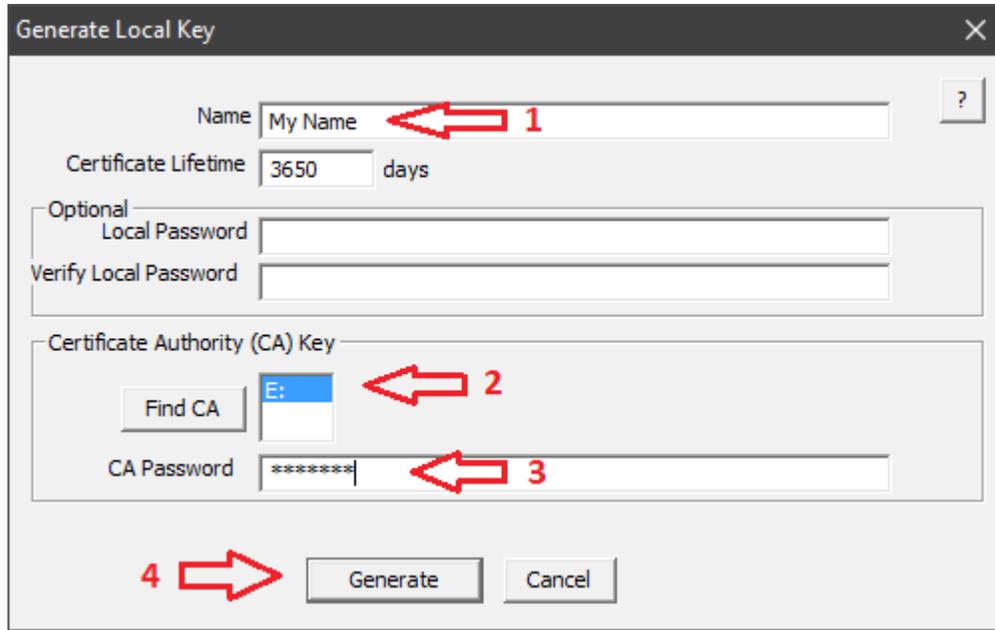
Click on the *Generate Local Key* button. For this step, you will need the USB Flash drive that contains your FT Certificate Authority (CA). This is the same USB Flash drive used for your FT Server and any FT client devices.



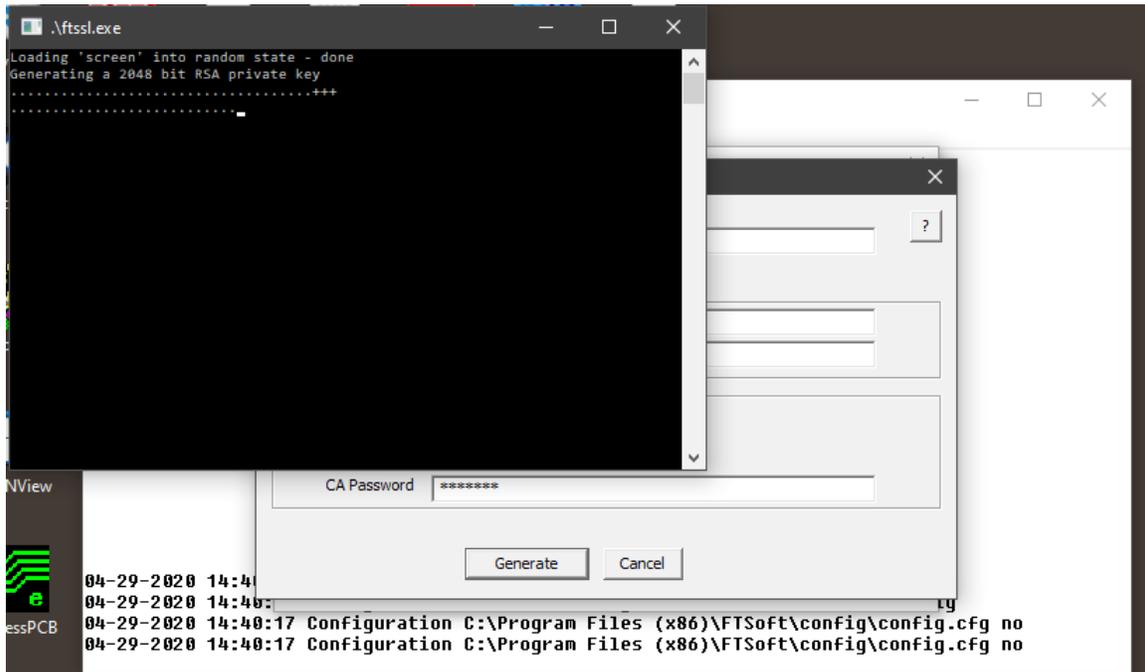
Install the USB flash drive into an available USB port on your PC. Click on the *Find CA* button. The software will attempt to find a valid FT Certificate Authority. If successful, it will show the drive letter in the list-box. If not successful, the list-box will remain empty. Please verify you have installed the correct USB flash drive into your PC.



Enter a name for your FT-Soft client. Also, enter the password for the CA. This must be the same password used when the CA was created. Optionally, you can enter a local password. This password is used to protect the FT-Soft client's local key. If you choose to password protect the key, the password will need to be entered each time FT-Soft is run.

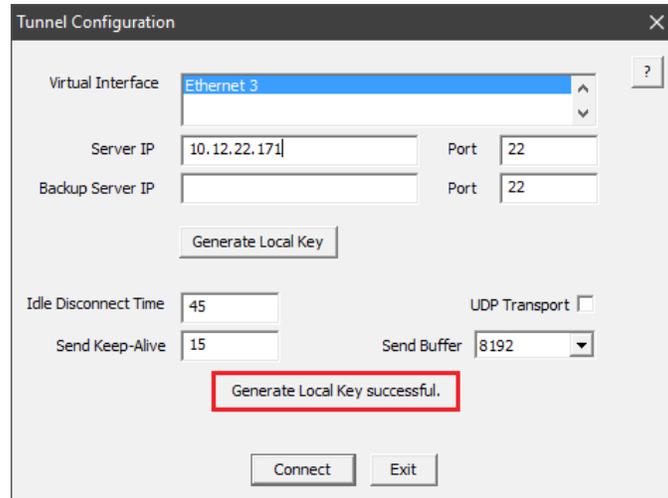


Press the *Generate* button to generate your local key. This may take some time. Several command-line screens will appear during the generation process.



If all goes well, you will see a successful status message.

You are now ready to connect to your server.



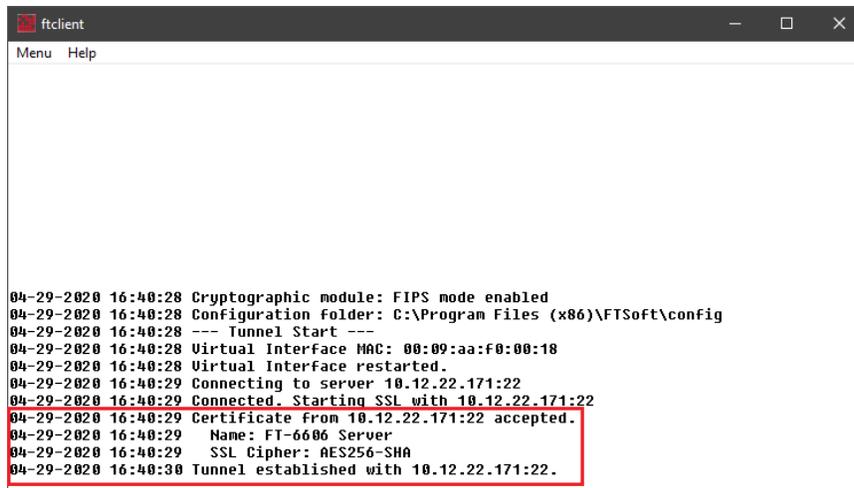
## Connecting to the server

Press the *Connect* button. If FT-Soft successfully connects with the server, the program will automatically minimize into the task bar. Pressing on the FT-Soft task icon will reopen the main FT-Soft window.



The main FT-Soft window will display logging information. This information can help with diagnosing any connection problems.

A successful connection will show the name of the server and that the tunnel is established.



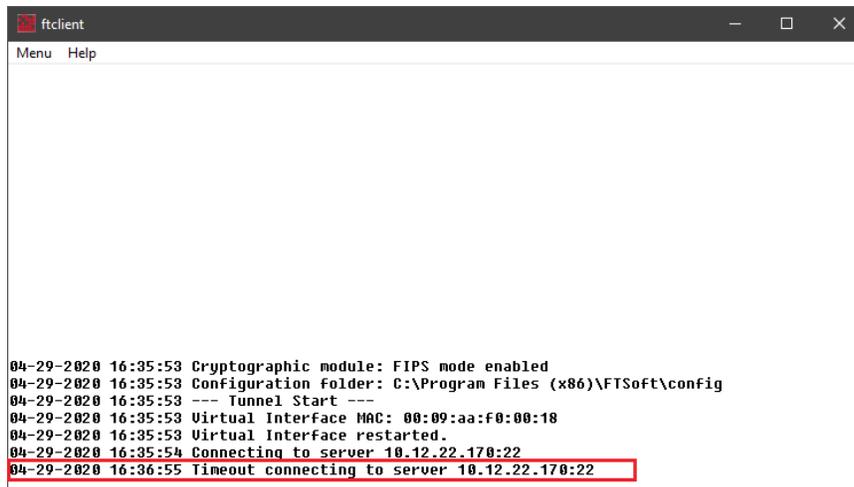
```

ftclient
Menu Help

04-29-2020 16:40:28 Cryptographic module: FIPS mode enabled
04-29-2020 16:40:28 Configuration folder: C:\Program Files (x86)\FTSoft\config
04-29-2020 16:40:28 --- Tunnel Start ---
04-29-2020 16:40:28 Virtual Interface MAC: 00:09:aa:f0:00:18
04-29-2020 16:40:28 Virtual Interface restarted.
04-29-2020 16:40:29 Connecting to server 10.12.22.171:22
04-29-2020 16:40:29 Connected. Starting SSL with 10.12.22.171:22
04-29-2020 16:40:29 Certificate from 10.12.22.171:22 accepted.
04-29-2020 16:40:29 Name: FT-6606 Server
04-29-2020 16:40:29 SSL Cipher: AES256-SHA
04-29-2020 16:40:30 Tunnel established with 10.12.22.171:22.

```

If the connection is unsuccessful, error messages will be displayed to the log window. Please review the messages for information regarding why the connection failed. In addition, check your FT server's log to see if your client is reaching the server. The most common cause of a connection problem is the PC's firewall. These will often show as a connection timeout. Make sure the firewall is allowing the outbound communication. Likewise, make sure the firewall at the server end is allowing the inbound communication.



```

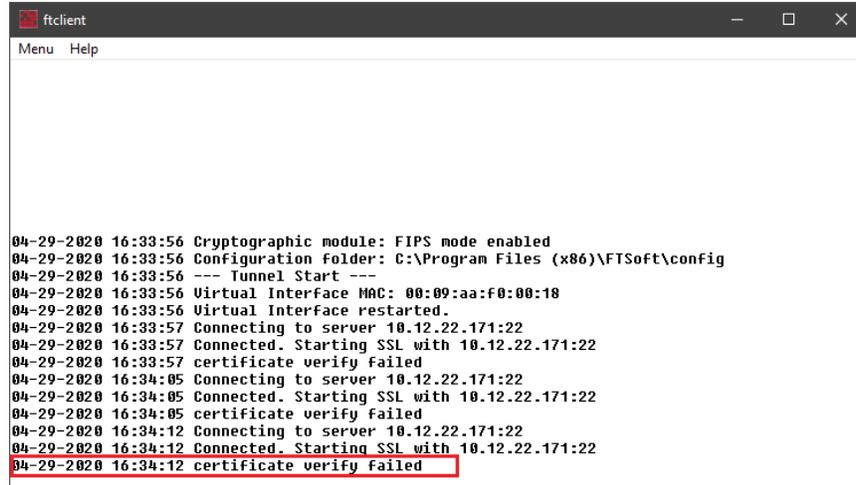
ftclient
Menu Help

04-29-2020 16:35:53 Cryptographic module: FIPS mode enabled
04-29-2020 16:35:53 Configuration folder: C:\Program Files (x86)\FTSoft\config
04-29-2020 16:35:53 --- Tunnel Start ---
04-29-2020 16:35:53 Virtual Interface MAC: 00:09:aa:f0:00:18
04-29-2020 16:35:53 Virtual Interface restarted.
04-29-2020 16:35:54 Connecting to server 10.12.22.170:22
04-29-2020 16:36:55 Timeout connecting to server 10.12.22.170:22

```

The next most common problem is an error with the key. This will show as a certificate error. It can be caused by using the wrong CA when generating the local key, connecting to the wrong server, or a clock mismatch between the PC and the FT server at the time that the local key was generated. If caused by a clock mismatch, it may be necessary to regenerate the local keys if the clock discrepancy is large. If the discrepancy is only a few minutes, the problem will usually correct once enough time has passed. If the

discrepancy was at the time the CA was generated, it may be necessary to regenerate the CA and all new local keys. If you have other FT clients successfully connecting to the FT server, then **do not** generate a new CA. The CA is probably fine and the problem is localized to the PC's local key.



```

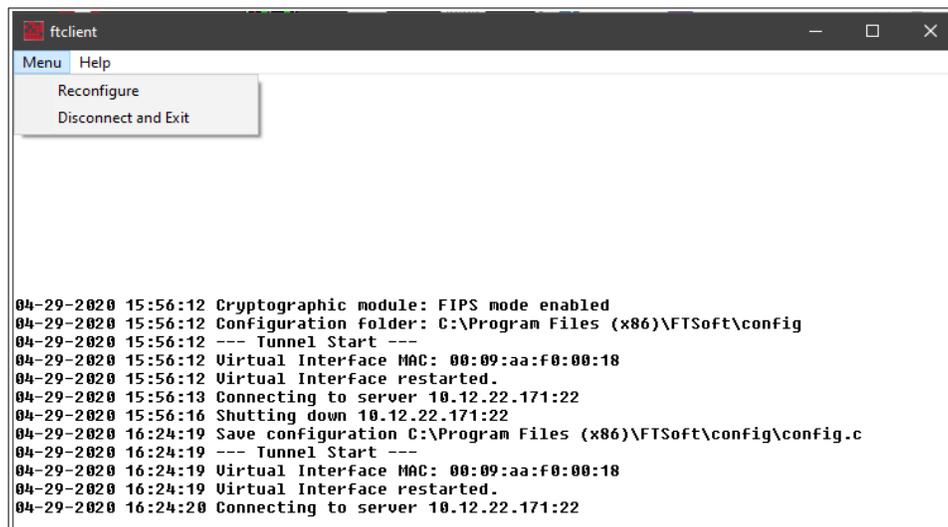
ftclient
Menu Help

04-29-2020 16:33:56 Cryptographic module: FIPS mode enabled
04-29-2020 16:33:56 Configuration folder: C:\Program Files (x86)\FTSoft\config
04-29-2020 16:33:56 --- Tunnel Start ---
04-29-2020 16:33:56 Virtual Interface MAC: 00:09:aa:f0:00:18
04-29-2020 16:33:56 Virtual Interface restarted.
04-29-2020 16:33:57 Connecting to server 10.12.22.171:22
04-29-2020 16:33:57 Connected. Starting SSL with 10.12.22.171:22
04-29-2020 16:33:57 certificate verify failed
04-29-2020 16:34:05 Connecting to server 10.12.22.171:22
04-29-2020 16:34:05 Connected. Starting SSL with 10.12.22.171:22
04-29-2020 16:34:05 certificate verify failed
04-29-2020 16:34:12 Connecting to server 10.12.22.171:22
04-29-2020 16:34:12 Connected. Starting SSL with 10.12.22.171:22
04-29-2020 16:34:12 certificate verify failed

```

To terminate a FT-Soft session, select *Menu* and press *Disconnect and Exit*. Alternately, press the “X” button in the corner of the window.

Once you have a valid configuration, it is not necessary to run FT-Soft as an Administrator. Subsequent sessions may be run as a normal user. However, to make any modifications to the configuration, you must run FT-Soft as an administrator.



```

ftclient
Menu Help
  Reconfigure
  Disconnect and Exit

04-29-2020 15:56:12 Cryptographic module: FIPS mode enabled
04-29-2020 15:56:12 Configuration folder: C:\Program Files (x86)\FTSoft\config
04-29-2020 15:56:12 --- Tunnel Start ---
04-29-2020 15:56:12 Virtual Interface MAC: 00:09:aa:f0:00:18
04-29-2020 15:56:12 Virtual Interface restarted.
04-29-2020 15:56:13 Connecting to server 10.12.22.171:22
04-29-2020 15:56:16 Shutting down 10.12.22.171:22
04-29-2020 16:24:19 Save configuration C:\Program Files (x86)\FTSoft\config\config.c
04-29-2020 16:24:19 --- Tunnel Start ---
04-29-2020 16:24:19 Virtual Interface MAC: 00:09:aa:f0:00:18
04-29-2020 16:24:19 Virtual Interface restarted.
04-29-2020 16:24:20 Connecting to server 10.12.22.171:22

```

Selecting “**Reconfigure**” will close the current tunnel connection and return to the “Tunnel Configuration” dialog.

Selecting “**Disconnect and Exit**” will close the current tunnel connection and exit the program. Pressing the “X” button, on the title bar, will also disconnect and exit.

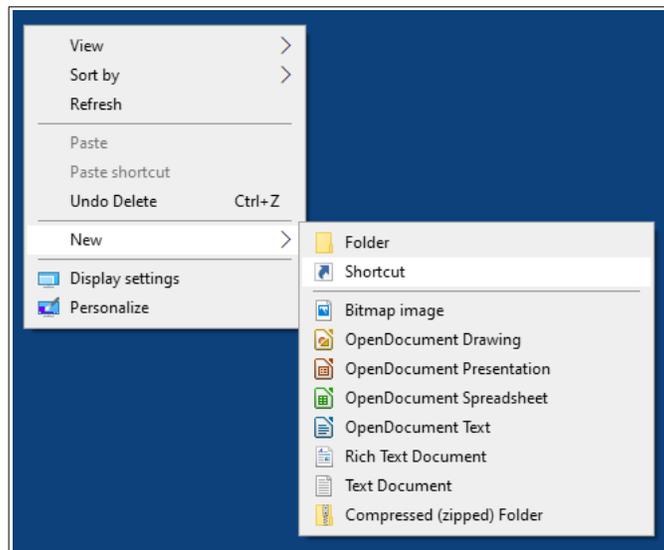
For more information regarding FT-Soft configuration, select the *Help* menu item or press the “?” button located in the Tunnel Configuration dialog.

## To Create Additional Connections using Desktop Icons

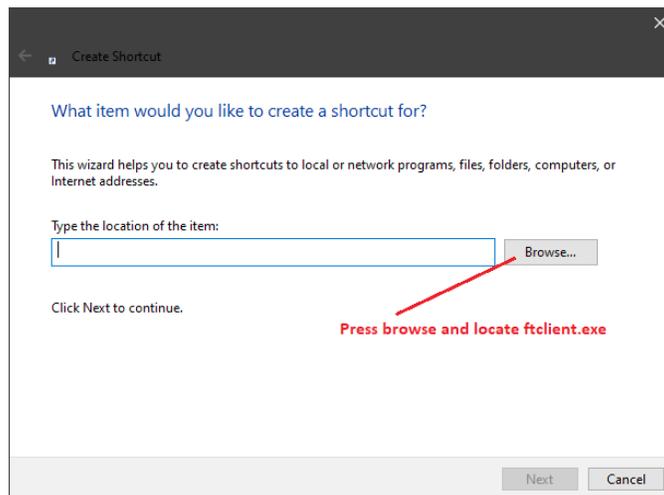
For users that frequently connect to different servers, it is possible to create a desktop shortcut that automatically loads a specific configuration. This is achieved by creating a shortcut and adding a command-line argument, specifying the full path to a configuration folder. Each connection must have a different configuration folder.

On older versions of Windows, an easy way to do this was to simply copy the default FT-Soft desktop icon and then modify it. **Do not use this method with Windows 8 and 10.** Instead always create a new shortcut.

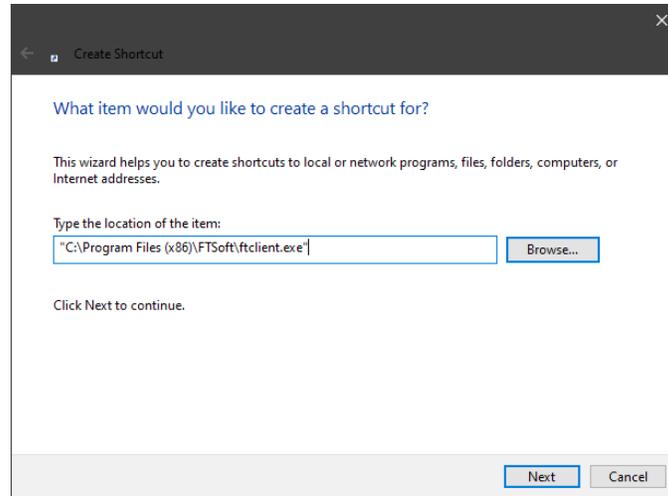
Create a new shortcut by right-clicking on the desktop, selecting *New* → *Shortcut*.



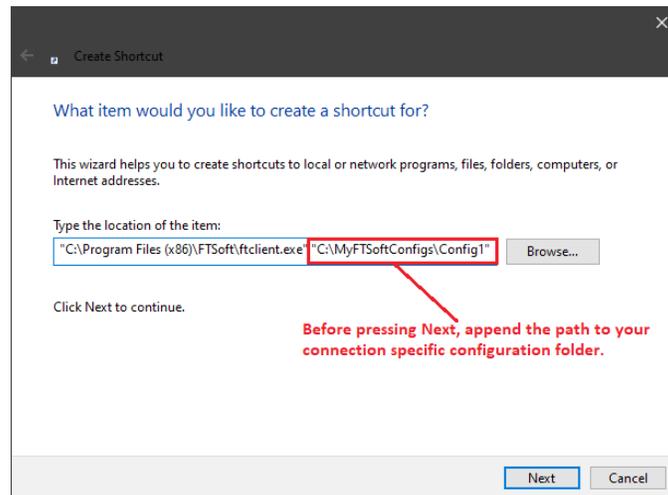
Browse and locate “ftclient.exe”, normally located in “C:\Program Files (x86)FTSoft”.



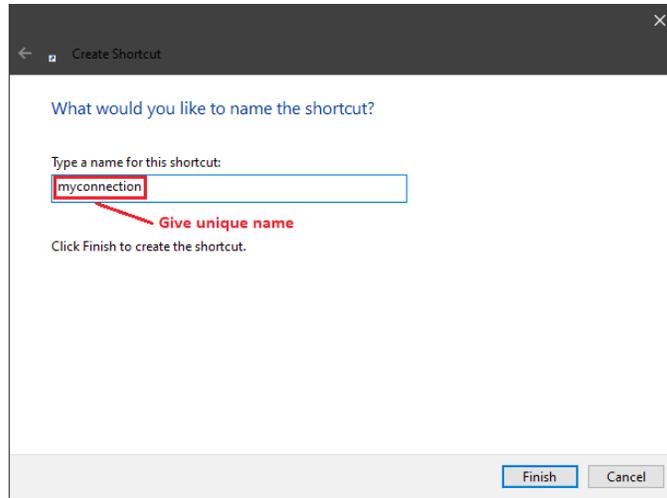
Before pressing “Next”, append the full pathname to your configuration folder. You are free to place the folder where you like. However, make sure each FT-Soft configuration folder is unique. Otherwise multiple instances of the same folder will overwrite each other.



When entering the folder name, make sure to add a space following the current target and to enclose the configuration folder name between double quotes.



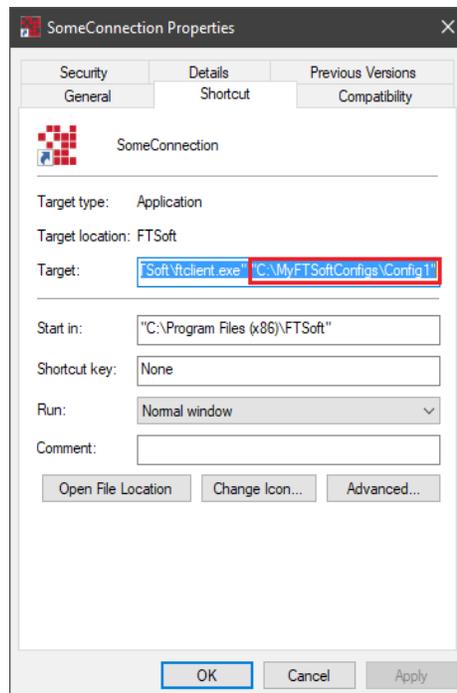
Press “Next” and assign the shortcut a unique name.



The resulting desktop icon will look something like the one below:



If needed, right-click the icon and select “Properties” to modify the shortcut target.



Remember to create the folder prior to running FT-Soft with this new icon. Also, the folder will belong to the user that created the folder. If necessary, adjust the security setting to allow or restrict access per your requirements. By default, the user that created the folder will be able to run FT-Soft, with this icon, and adjust the configuration.