AVL Loom Configuration Tool

This program is only for those computers running the Windows operating system. It will not run on a Mac. It is intended to be a very simple application that will not run into problems with Windows or any of the various security programs. To make it simple, it uses a very old style with scrolling text instead of the usual pre-formatted form in a window that you are probably used to. This is intentional and because the use of this program is very minimal, we hope that it will not cause difficulty. As always, it you have questions or concerns please contact me (codemonkey at avlusa dot com).

Installation

There is only one file, "LoomConfig.exe" and it is contained in a folder named "LoomConfigurationTool". You will also find the documentation in the same folder.

The following steps should get your running:

- Copy the folder and paste it on your Desktop.

- Using the File Explorer, go to the folder – you should see the program file.

- Turn on your loom.

- Connect your computer to your loom with a USB cable.

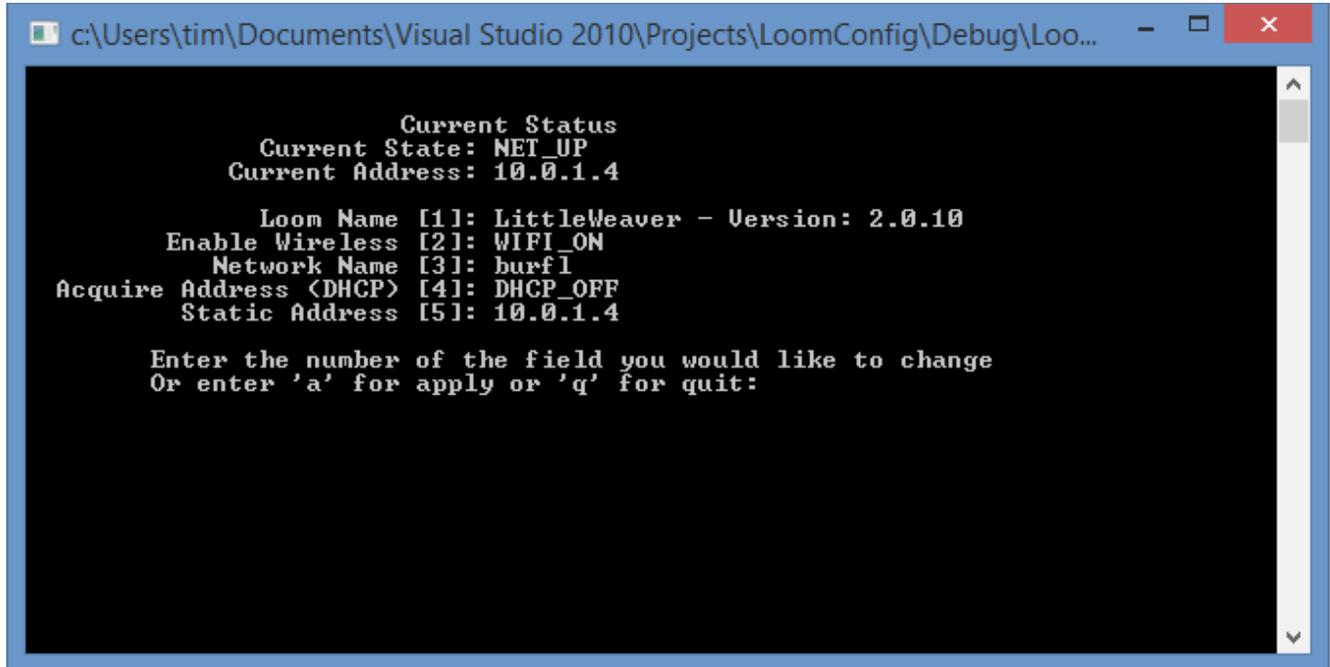- Double click the program file (LoomConfig.exe).

Use

This is a scrolling, text only program. Every time you enter a command, it will rewrite the data on the screen, so that you can see exactly what it will do when you tell it to apply the changes. The commands are:

- 'a' – apply changes. This tells the loom that the configuration should be what was last printed on the screen

- 'q' – quit. Exit the program. Any pending changes will be lost.

- '1' – Change the loom name.

- '2' – Turn wireless on or off.

- '3' – Choose a network.

- '4' – Enable/Disable having the router assign a dynamic address.

- '5' – Set the static address of the loom.

Each command, or data entry, is terminated with a 'CR' or carriage return. This may be labeled "return" on your keyboard.

Once you have started the program, it should open a text window that looks a bit like

This is from my system and the data displayed for yours will be different. If you have never configured your loom before, you will see that the Loom Name is "AVLLoom" and the Current State will say "NET_DOWN".

To change the name of your loom enter "1" followed by return "CR". You will be prompted for the new name. Once you enter it (followed by a "CR") the status will be printed and the screen will probably scroll. While you can scroll the screen back to review your changes, it shouldn't be necessary as the program will always print the updated information after each change. If you want the current state to be printed again, just enter "CR" at the prompt. Below is what this looks like.

```
c:\Users\tim\Documents\Visual Studio 2010\Projects\LoomConfig\Debug\Loo...  –  □  ×

              Loom Name [1]: LittleWeaver - Version: 2.0.10
         Enable Wireless [2]: WIFI_ON
            Network Name [3]: burfl
  Acquire Address (DHCP) [4]: DHCP_OFF
           Static Address [5]: 10.0.1.4

       Enter the number of the field you would like to change
       Or enter 'a' for apply or 'q' for quit: 1

    New Loom Name: Frodo


                       Current Status
              Current State: NET_UP
            Current Address: 10.0.1.4

              Loom Name [1]: Frodo - Version: 2.0.10
         Enable Wireless [2]: WIFI_ON
            Network Name [3]: burfl
  Acquire Address (DHCP) [4]: DHCP_OFF
           Static Address [5]: 10.0.1.4

       Enter the number of the field you would like to change
       Or enter 'a' for apply or 'q' for quit:
```

At this point we have changed the name in the program, but we haven't actually changed it on the loom. We need to apply the change, so we enter "a" followed by "CR" as shown below.

```
c:\Users\tim\Documents\Visual Studio 2010\Projects\LoomConfig\Debug\Loo...  –  □  ×

              Loom Name [1]: Frodo - Version: 2.0.10
         Enable Wireless [2]: WIFI_ON
            Network Name [3]: burfl
  Acquire Address (DHCP) [4]: DHCP_OFF
           Static Address [5]: 10.0.1.4

       Enter the number of the field you would like to change
       Or enter 'a' for apply or 'q' for quit: a

Please wait .
                       Current Status
              Current State: NET_UP
            Current Address: 10.0.1.4

              Loom Name [1]: Frodo - Version: 2.0.10
         Enable Wireless [2]: WIFI_ON
            Network Name [3]: burfl
  Acquire Address (DHCP) [4]: DHCP_OFF
           Static Address [5]: 10.0.1.4

       Enter the number of the field you would like to change
       Or enter 'a' for apply or 'q' for quit:
```
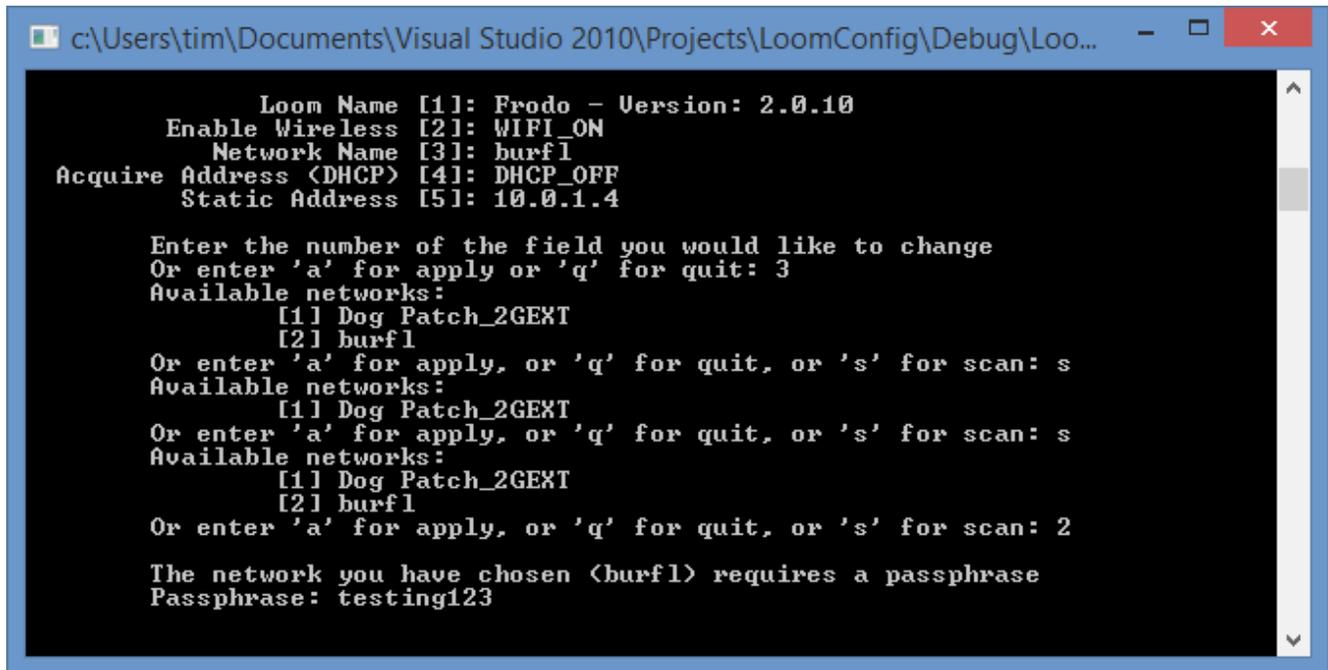
Once we enter the apply command, the computer prints "Please wait" followed by some number of dots. Some changes, like this one, happen fairly quickly and there are few dots. Some take longer and will print more dots. If you get enough dots to start a second line, something is wrong. If so, hold down the "control" key and type "c". This should terminate the program. Whenever the program runs, it will create a file called "LoomConfig.log" in the same folder as the program file. If you have to terminate

the program, please send email explaining the problem as you saw it and attach the log file.

Now, let's change the network. Yours probably says "AVL" and it needs to be the name of your network. As you can see below, we enter choice 3 and the computer responds with "Available networks:" followed by one line per network. If you don't see your network, press "s" and "CR" to scan for networks again. It can take a couple of tries – as you can see below.
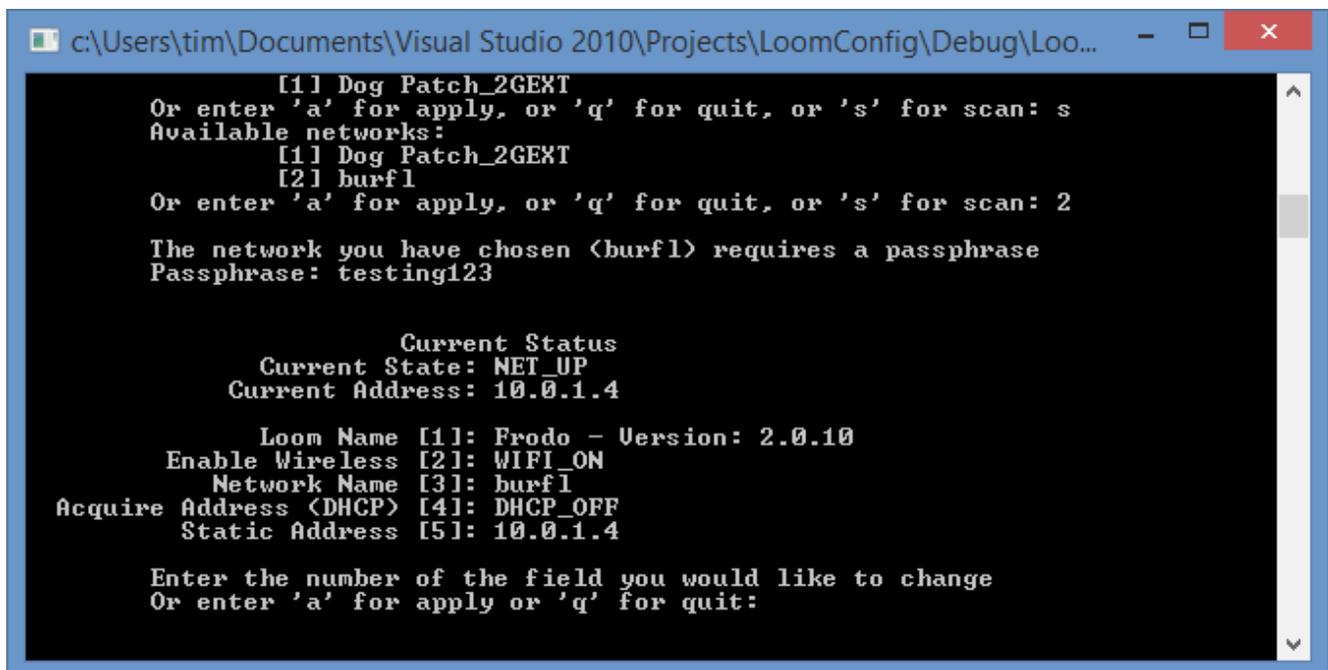

As you can see, I chose network 2 (burfl) and entered a new passphrase ("testing123"). This isn't correct for my network, but we need a picture of what the results of getting this wrong looks like.

I have a chance to review it, but I missed seeing the mistake and went ahead and told it to apply the change.

```
c:\Users\tim\Documents\Visual Studio 2010\Projects\LoomConfig\Debug\Loo...    —  □   ×

                Loom Name [1]: Frodo — Version: 2.0.10
          Enable Wireless [2]: WIFI_ON
             Network Name [3]: burfl
   Acquire Address (DHCP) [4]: DHCP_OFF
           Static Address [5]: 10.0.1.4

       Enter the number of the field you would like to change
       Or enter 'a' for apply or 'q' for quit: a


Please wait ..........................

                        Current Status
              Current State: NET_DOWN
            Current Address: 10.0.1.4

                Loom Name [1]: Frodo — Version: 2.0.10
          Enable Wireless [2]: WIFI_ON
             Network Name [3]: burfl
   Acquire Address (DHCP) [4]: DHCP_OFF
           Static Address [5]: 10.0.1.4

       Enter the number of the field you would like to change
       Or enter 'a' for apply or 'q' for quit: 3
```

The first thing we notice is that when we change anything about the network, it takes quite a bit longer. The second thing is that Current State says "NET_DOWN". That means the loom is not connected to my network. So, I look at the values shown and see that the network is incorrect. To fix it, I enter "3" for my command.

```
c:\Users\tim\Documents\Visual Studio 2010\Projects\LoomConfig\Debug\Loo...    —  □   ×

       Or enter 'a' for apply or 'q' for quit: 3
       Available networks:
           [1] ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
||||||||||||||||||||||||....m.a[t÷|@¢8|
       Or enter 'a' for apply, or 'q' for quit, or 's' for scan: s
       Available networks:
           [1] Dog Patch_2GEXT
       Or enter 'a' for apply, or 'q' for quit, or 's' for scan: s
       Available networks:
           [1] Dog Patch_2GEXT
           [2] burfl
       Or enter 'a' for apply, or 'q' for quit, or 's' for scan: 1

       The network you have chosen (Dog Patch_2GEXT) requires a passphrase
       Passphrase: testing123


                        Current Status
              Current State: NET_DOWN
            Current Address: 10.0.1.4

                Loom Name [1]: Frodo — Version: 2.0.10
          Enable Wireless [2]: WIFI_ON
             Network Name [3]: Dog Patch_2GEXT
   Acquire Address (DHCP) [4]: DHCP_OFF
```
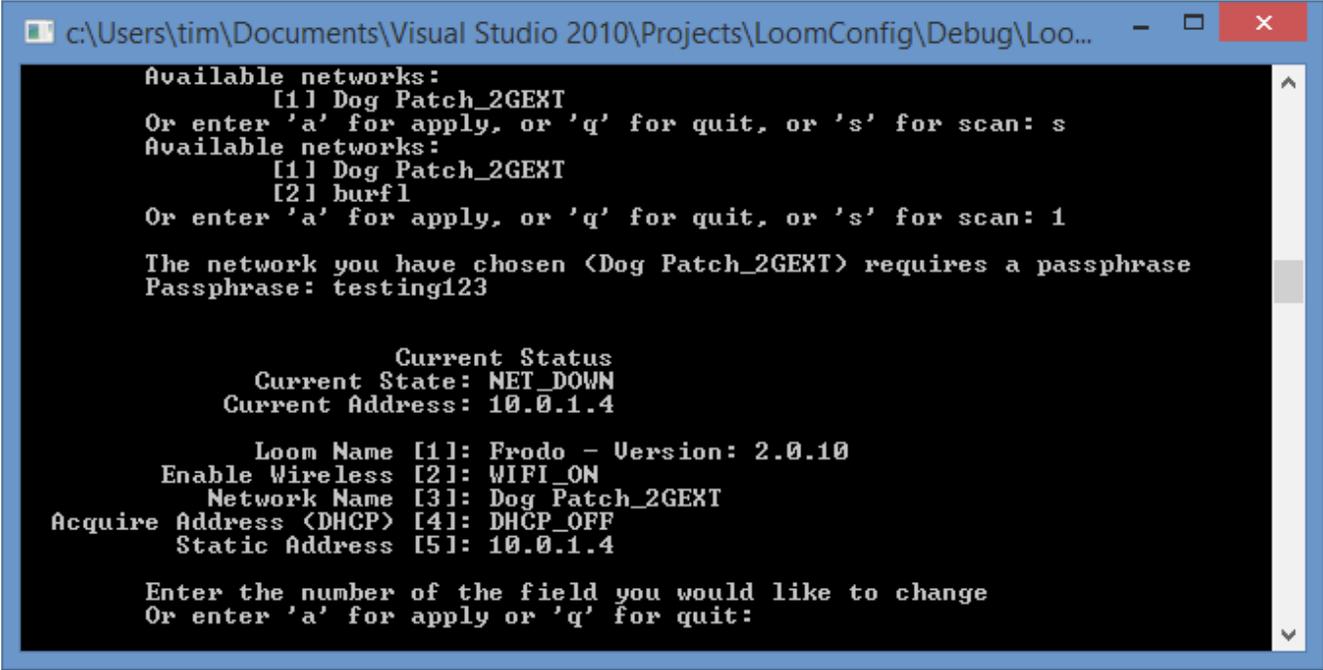
Well, we got a mess on the screen where we expected a network name. This isn't a problem, just enter a scan command ("s") until you see the network that you want. Notice that this time I choose network #1 and enter the same passphrase.


```
                Available networks:
                        [1] Dog Patch_2GEXT
                Or enter 'a' for apply, or 'q' for quit, or 's' for scan: s
                Available networks:
                        [1] Dog Patch_2GEXT
                        [2] burf1
                Or enter 'a' for apply, or 'q' for quit, or 's' for scan: 1

                The network you have chosen (Dog Patch_2GEXT) requires a passphrase
                Passphrase: testing123


                             Current Status
                     Current State: NET_DOWN
                     Current Address: 10.0.1.4

                        Loom Name [1]: Frodo - Version: 2.0.10
                Enable Wireless [2]: WIFI_ON
                     Network Name [3]: Dog Patch_2GEXT
        Acquire Address (DHCP) [4]: DHCP_OFF
                   Static Address [5]: 10.0.1.4

                Enter the number of the field you would like to change
                Or enter 'a' for apply or 'q' for quit:
```
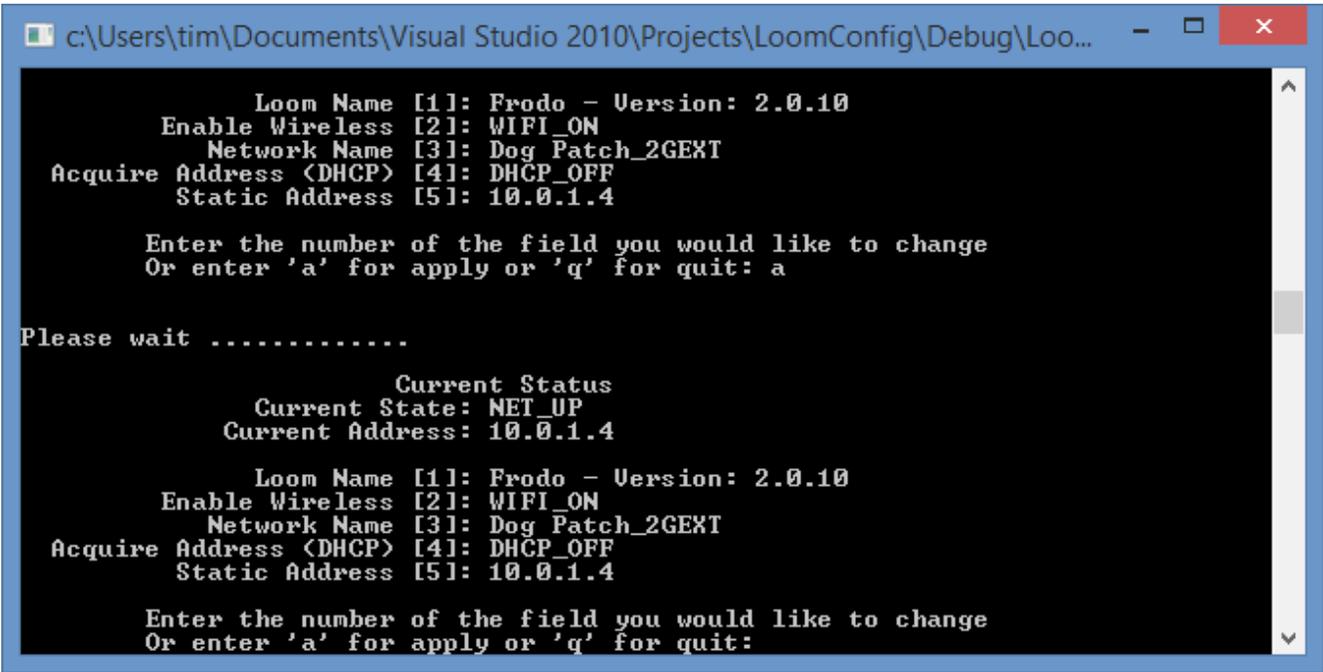
Then I enter the apply command.


```
                        Loom Name [1]: Frodo - Version: 2.0.10
                Enable Wireless [2]: WIFI_ON
                     Network Name [3]: Dog Patch_2GEXT
        Acquire Address (DHCP) [4]: DHCP_OFF
                   Static Address [5]: 10.0.1.4

                Enter the number of the field you would like to change
                Or enter 'a' for apply or 'q' for quit: a

Please wait ..............

                             Current Status
                     Current State: NET_UP
                     Current Address: 10.0.1.4

                        Loom Name [1]: Frodo - Version: 2.0.10
                Enable Wireless [2]: WIFI_ON
                     Network Name [3]: Dog Patch_2GEXT
        Acquire Address (DHCP) [4]: DHCP_OFF
                   Static Address [5]: 10.0.1.4

                Enter the number of the field you would like to change
                Or enter 'a' for apply or 'q' for quit:
```
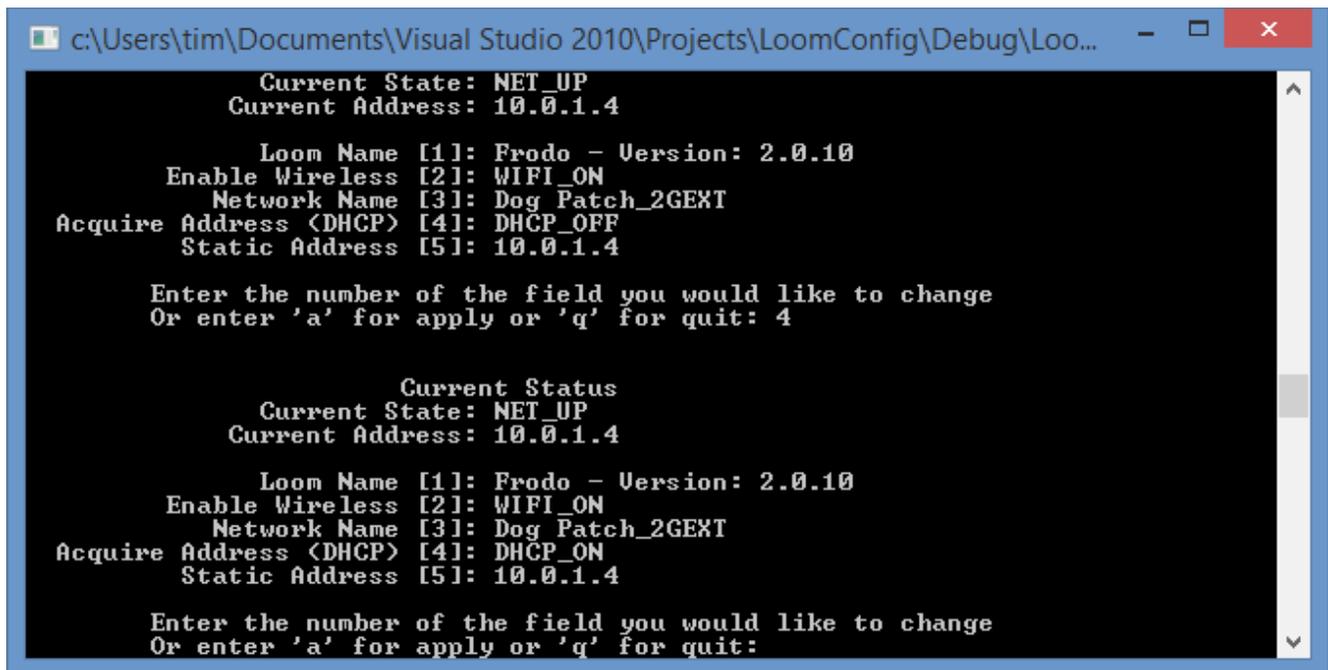
Notice that this time Current State shows "NET_UP". That means we have successfully connected to the network and we can connect to the loom.

Before quitting the program, we need to see what happens when we pick choice 2 or 4. Neither of these prompt for the new value and simply toggle between the two values.


```
 c:\Users\tim\Documents\Visual Studio 2010\Projects\LoomConfig\Debug\Loo...

                   Current State: NET_UP
                   Current Address: 10.0.1.4

                   Loom Name [1]: Frodo - Version: 2.0.10
            Enable Wireless [2]: WIFI_ON
               Network Name [3]: Dog Patch_2GEXT
    Acquire Address (DHCP) [4]: DHCP_OFF
              Static Address [5]: 10.0.1.4

         Enter the number of the field you would like to change
         Or enter 'a' for apply or 'q' for quit: 4


                        Current Status
                   Current State: NET_UP
                   Current Address: 10.0.1.4

                   Loom Name [1]: Frodo - Version: 2.0.10
            Enable Wireless [2]: WIFI_ON
               Network Name [3]: Dog Patch_2GEXT
    Acquire Address (DHCP) [4]: DHCP_ON
              Static Address [5]: 10.0.1.4

         Enter the number of the field you would like to change
         Or enter 'a' for apply or 'q' for quit:
```
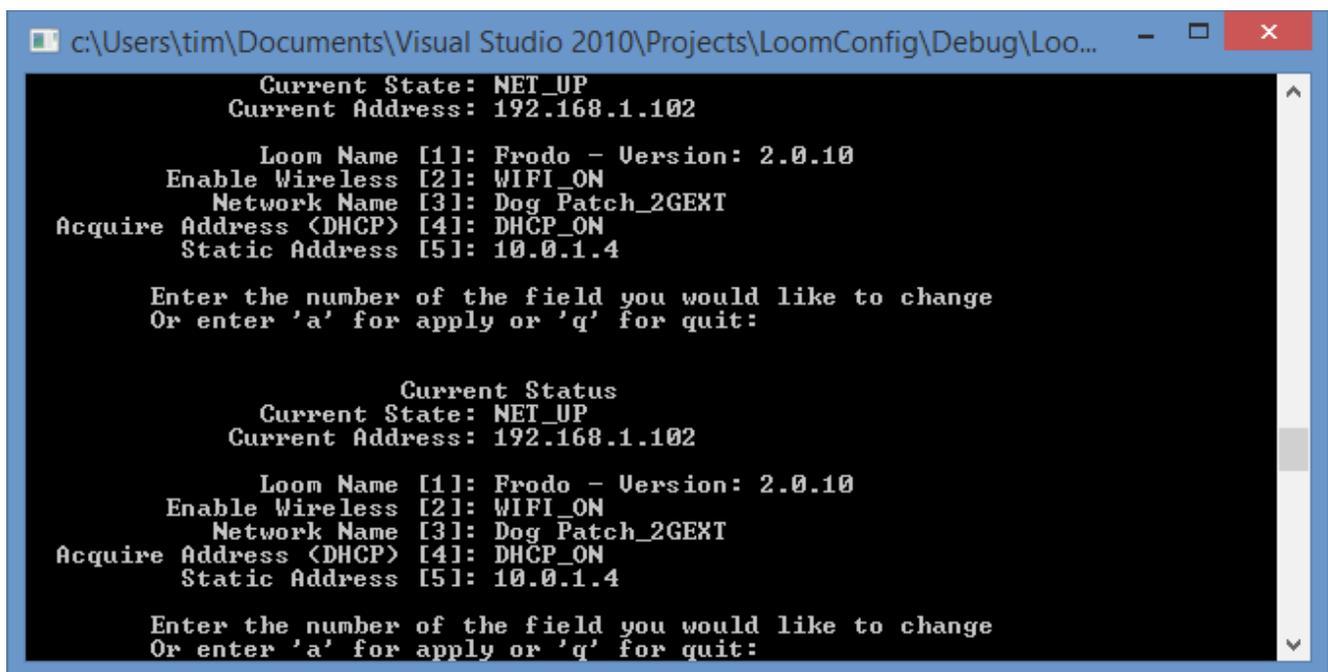
I chose 4, and the value changed from "DHCP_OFF" to "DHCP_ON". Notice that the current address field is the same as the static address field. With DHCP off, the loom uses the address that we have assigned in the static address field. When we turn DHCP on, the loom will acquire its address automatically from the router.


```
 c:\Users\tim\Documents\Visual Studio 2010\Projects\LoomConfig\Debug\Loo...

                   Current State: NET_UP
                   Current Address: 192.168.1.102

                   Loom Name [1]: Frodo - Version: 2.0.10
            Enable Wireless [2]: WIFI_ON
               Network Name [3]: Dog Patch_2GEXT
    Acquire Address (DHCP) [4]: DHCP_ON
              Static Address [5]: 10.0.1.4

         Enter the number of the field you would like to change
         Or enter 'a' for apply or 'q' for quit:


                        Current Status
                   Current State: NET_UP
                   Current Address: 192.168.1.102

                   Loom Name [1]: Frodo - Version: 2.0.10
            Enable Wireless [2]: WIFI_ON
               Network Name [3]: Dog Patch_2GEXT
    Acquire Address (DHCP) [4]: DHCP_ON
              Static Address [5]: 10.0.1.4

         Enter the number of the field you would like to change
         Or enter 'a' for apply or 'q' for quit:
```

After choosing "apply", you can see that the current address has changed to something very different from our static address.