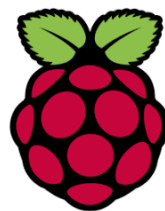




Raspberry Pi Set-up for Wi-Fi to HDMI Adapter



General Overview

The EliteScore MVP™ gymnastics scoring system uses a special adapter to display scores to customer supplied TV/Monitors or Projector. The adapter is built on Raspberry Pi technology. This guide explains how to configure the Raspberry Pi to network with your system. This is necessary should a factory supplied adapter need to be replaced or you purchase new ones to expand your displays.

1. **Basic intro to Raspberry Pi-** This small single board computer features Linux operating system. Currently (1-28-17) four base models have been sold as Pi-Wi-Fi to HDMI adapters and depending on your model may require certain version software and/or peripherals adds.

- a. **Pi 1 Model A+ & B+:** requires USB-Wi-Fi adapter and 1.5 amp power supply.

Elite software version 1.1 -1.3 SD Memory Card- 4GB
2 USB ports WEP security only



- b. **Pi 2 Model B:** requires USB-Wi-Fi adapter and 2.5-amp power supply.

Elite software version 1.4 Micro SD Memory Card- 4GB
4 USB ports WEP or WPA2-PSK security



- c. **Pi 3 Model B:** BUILT IN Wi-Fi and requires 3.0-amp power supply

Elite software version 1.5 Micro SD Memory Card- 8GB
4 USB ports WEP or WPA2-PSK security



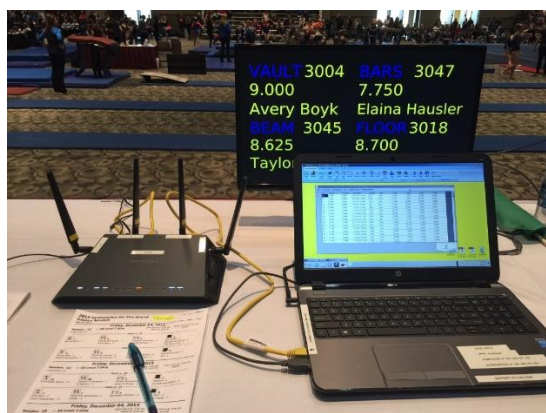
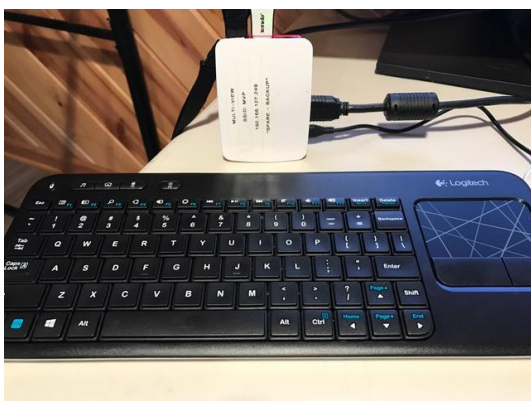
IMPORTANT NOTES:

Elite Score customers who wish to use their **MDX Series scoreboards** with TV/Monitors require the Wi-Fi to HDMI Pi adapters to be set up with WEP security. Customer's using TV/Monitors and/or projectors can use WEP or WPA2-PSK. USB to Wi-Fi adapters must be compatible with LINUX. Elite Score standardized on Tenda® models for this reason. Expect 100' range max with non-antenna models.

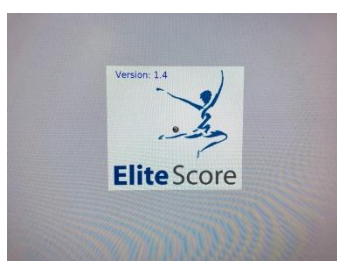
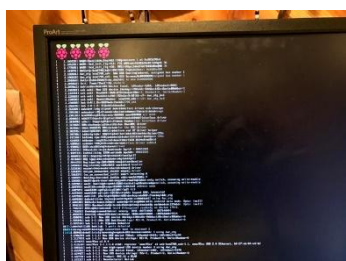


2. Peripherals required for set-up:

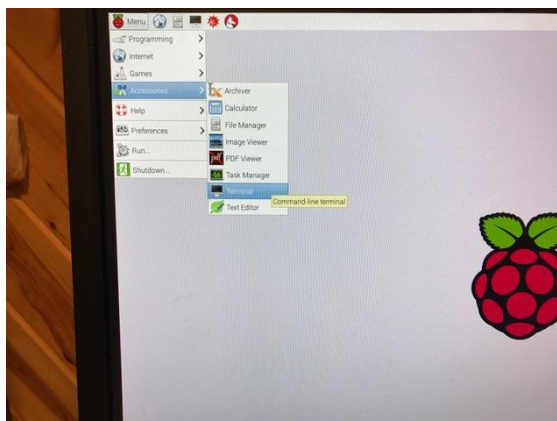
- a. USB Keyboard with touch pad or mouse
- b. Monitor with HDMI port
- c. HDMI cable
- d. Micro Power adapter for Raspberry Pi (1.5, 2.5, or 3.0 amp depending on model)
- e. Set up and startup your scoring computer and associated Wireless Router



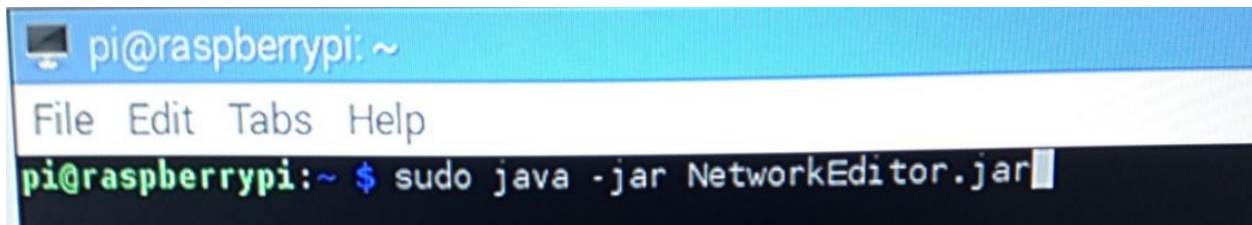
3. Newly purchased Wi-Fi to HDMI Adapter Pi will come cased with HDMI cable, power supply and USB Wi-Fi adapter (if not Pi 3 Model B) and versioned memory card installed.
4. Once connected with keyboard and monitor, power up the unit to start boot sequence.



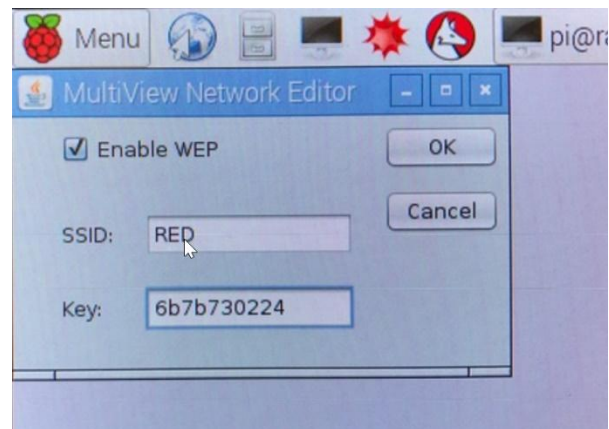
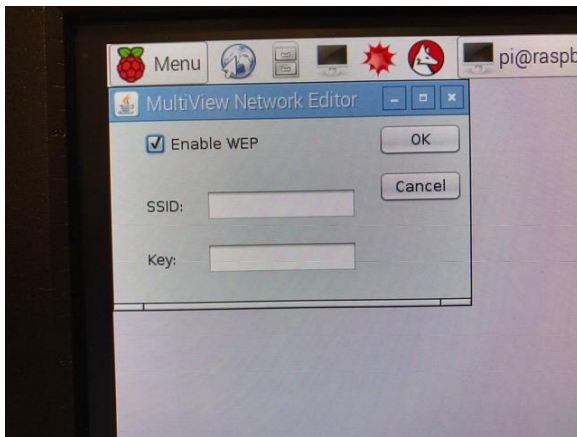
5. Once Elite Score program loads to a white screen, press Q on keyboard to quit the program and return to Pi desktop then navigate to the command line terminal.



6. Type the command: `sudo java -jar NetworkEditor.jar`



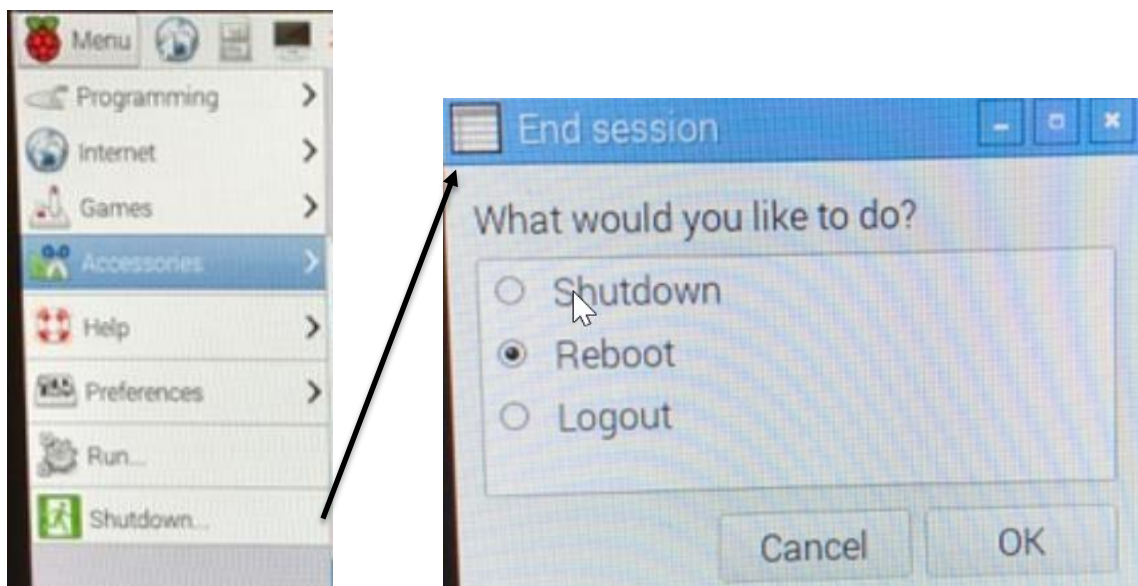
This will bring you to the default Network Editor which is enabled for WEP security.



If you plan to use WEP security (you have a scoreboard to use with Monitors) then type in your scoring Routers SSID (usually FLEX) and the standard Key which is 6B7B730224. In this example the SSID: RED

If you wish to use WPA security uncheck the Enable WEP box.

In either case, the next step is to Reboot the Pi. In upper left corner of desktop click Menu and navigate down to Shut down and select the Reboot option

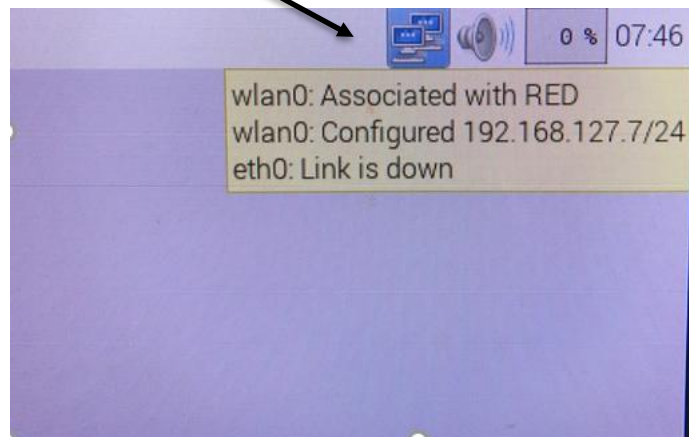


7. **This Step is for configuring WEP security.** The program will reboot to the white screen so again hit Q to quit the program and navigate to upper right corner of desktop to find the dual computer icon. Click the icon to show the network connection status.

wlan0 is Wi-Fi Lan which is now connected to SSID Red and the router has been assigned the IP address 192.168.168.127.7

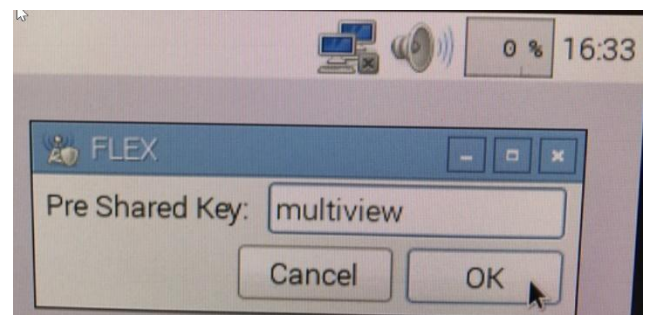
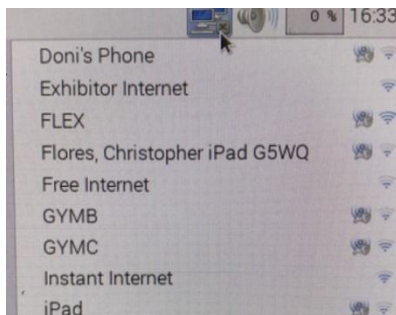
Next step is to do a permanent static reservation in the Router so the Pi Adapter will always have a

fixed address. If you will be using WEP security, please go to step 9.



8. **This step is for configuring WPA2-PSK security**

If you rebooted the Pi after unchecking the Enable WEP (step 6) you will navigate to upper right corner of the desk top and click on the dual monitor icon where you will now be able to attach to scoring computers network SSID with WPA2-PSK security key. Most factory built and shipped systems use SSID: MVP with security key: multiview. Hovering your pointer over the dual computer icon will show a list of available networks to select.

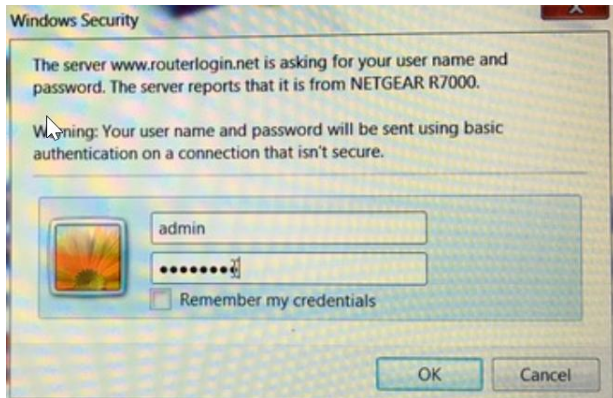


9. Your Pi-Wi-Fi to HDMI adapter is now be connected to your scoring systems Wi-Fi network and has been given an IP address by your Router (our example shows 192.168.127.7). Time now to give the Pi adapter a static IP address reservation. The following instructions are for the NETGEAR model routers which is standard for Elite Score systems shipped from factory. If you are using a different vendor you will need to learn steps for LAN setup of static IP address reservations.

The NETGEAR Genie Setup Wizard is accessed by using your computers Internet Explorer as a gateway into the router. YOU DO NOT WANT TO BE CONNECTED TO THE INTERNET as you will do this setup manually. The Internet Explorer is used for Intranet access!

10. In your browser type www.routerlogin.net This will bring you to the login screen.

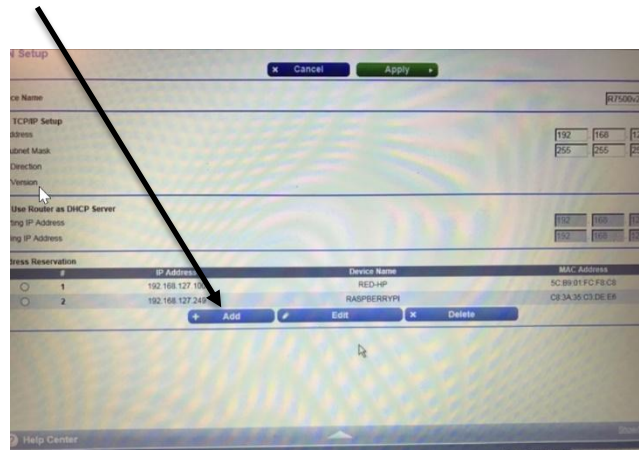
User Name: admin Password: password (case sensitive so be careful!)



11. The NETGEAR genie Wizard main screen is as follows. You will go to advanced Tab and to >>Setup<< >>LAN Setup<<



Just below Address Reservation table click ADD



12. Clicking ADD will take you to another screen with a table of all current attached devices. Search the table to find your Raspberry Pi with the IP address with that found on your Pi monitor.

NETGEAR genie
Nighthawk X4 R7500v2

ADVANCED

Address Reservation

Refresh Cancel Add

#	IP Address	Device Name	MAC Address
☒ 1	192.168.127.7	RASPBERRYPI	C8:3A:35:C3:DE:E6
☐ 2	192.168.127.5	IPAD	68:9C:70:B2:8B:0C
☐ 3	192.168.127.3	IPAD	E0:66:78:36:A8:7C
☐ 4	192.168.127.4	IPAD	E0:66:78:7A:86:34
☐ 5	192.168.127.100	RED-HP	5C:B9:01:FC:F8:C8

IP Address: 192.168.127.7
MAC Address: C8:3A:35:C3:DE:E6
Device Name: RASPBERRYPI

13. Click the radio button to edit the IP address as shown below. In this example, we are assigning a static IP address of 192.168.127.249 to this Pi Adapter. You can also change the Device Name. Once changes are made click >>Add<< and you return to main setup screen.

NETGEAR genie

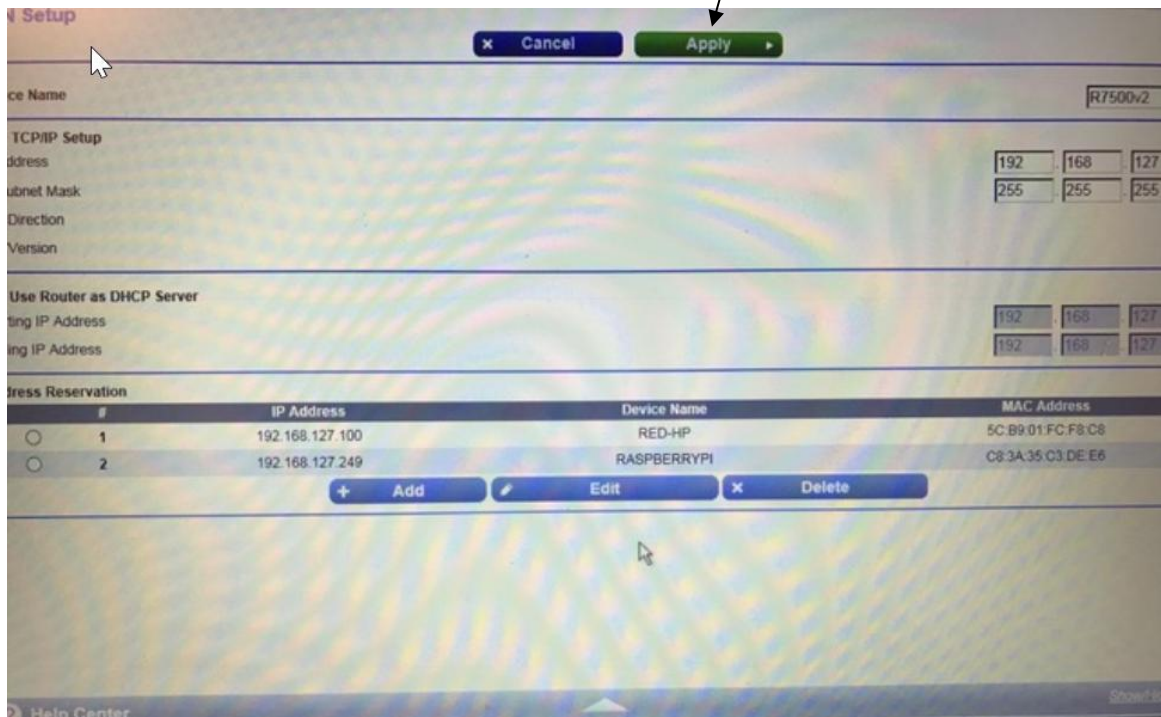
Address Reservation

Refresh Cancel Add

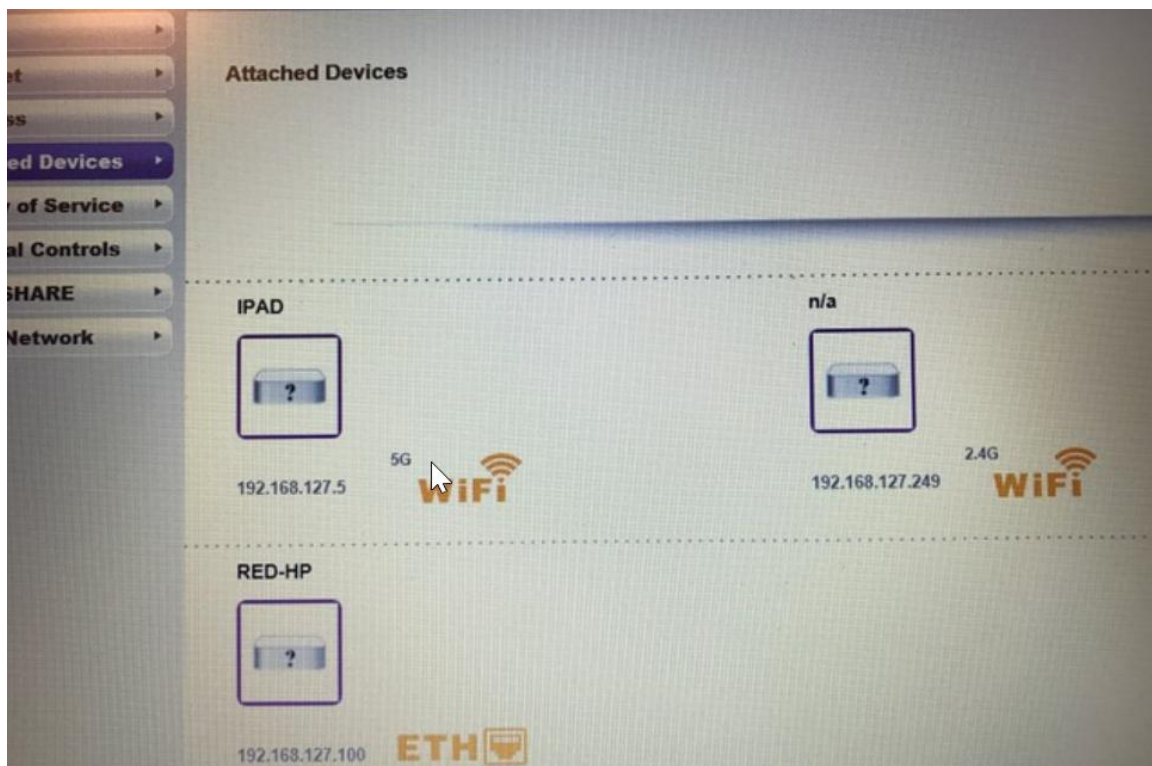
#	IP Address	Device Name	MAC Address
☒ 1	192.168.127.7	RASPBERRYPI	C8:3A:35:C3:DE:E6
☐ 2	192.168.127.5	IPAD	68:9C:70:B2:8B:0C
☐ 3	192.168.127.3	IPAD	E0:66:78:36:A8:7C
☐ 4	192.168.127.4	IPAD	E0:66:78:7A:86:34
☐ 5	192.168.127.100	RED-HP	5C:B9:01:FC:F8:C8

IP Address: 192.168.127.249
MAC Address: C8:3A:35:C3:DE:E6
Device Name: RASPBERRYPI

14. Important that you apply changes from this screen. Apply command found at top of screen,



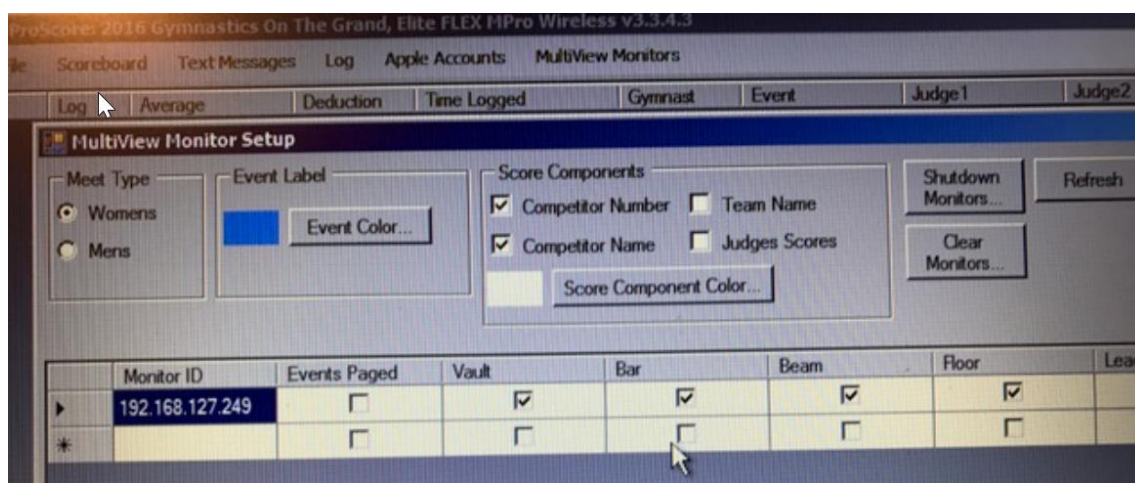
15. Once changes are applied you will find your Pi adapter in the Attached Devices screen with new static IP address of 192.168.127.249



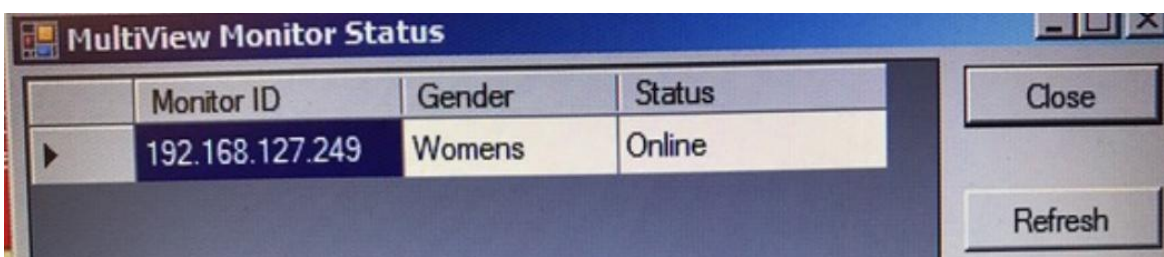
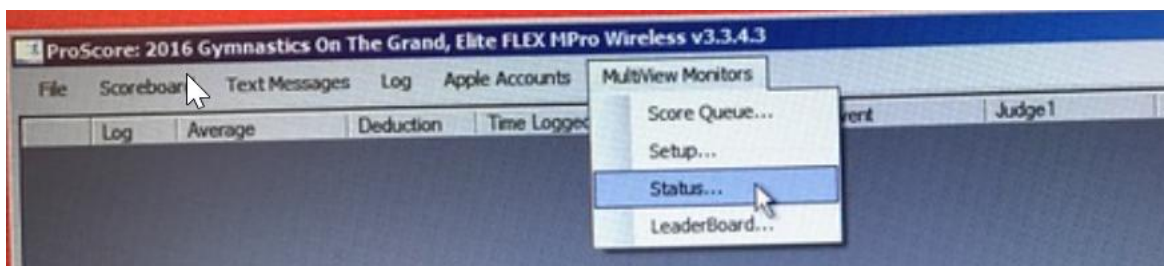
16. Once configured and online the Tenda USB to Wi-Fi will display a solid Green Light. Flashing Green when data is active.



17. Configure your Pi-Wi-Fi to HDMI adapter under >>Multiview Monitors<< within the Elite FLEX MRO application. Must first enter 192.168.127.249 address under Monitor ID



18. Always check >>Status<< of your adapters from the main program, Elite FLEX MRO



VAULT 3501	BARS 3418
9.000	9.000
Kendra Benak	Victoria Harder
BEAM 3361	FLOOR 3165
9.350	9.425
Rory Fulk	Dahlia Evans

FLOOR	1607 Salvator Izzì	13.600
POMMEL	1409 Trey Welch	10.700
RINGS	1407 Andrew Kielbaso	10.700
VAULT	1406 Adhish Kashyap	11.700
P BARS	1415 Kyle Fox	9.600
H BAR	1605 Ethan Campion	11.700

The important control button is **<Shutdown Monitors>**. Very important you only power down your Pi-Wi-Fi to HDMI adapters using this button. Remember, you adapter is a computer and pulling power source can corrupt the devices memory.

Thank You for your purchase of our Pi-Wi-Fi to HDMI adapter. Call if you need assistance as customer satisfaction is our goal! 913.302.4200

Roger W. Resley

President/Founder

Elite Technology Company



Elite Technologies, LLC

5120 Stearns Avenue

Shawnee Mission, KS 66203

Phone 913.302.4200

E-Fax 408.273.6327

info@elitescore.com

www.elitescore.com