

Synergy Controller USB WiFi Dongle Setup



Synergy Nano 2



Synergy Quattro 2

Overview

Synergy Controllers, including the Synergy Nano 2 and Synergy Quattro 2 (shown above), are equipped with an Ethernet network port for network communications and support Telnet, Web (http), SMTP (e-mail) and FTP protocols.

This application note explains how you can use the controller's Host USB Port to connect these controllers to a wireless network.

TE2424 Synergy Quattro-Nano WiFi Option

- Plug and Play with Synergy Quattro/Nano 2
- Operates in 2.4 GHz frequency bands with data rate up-to 150 Mbps, 802.11b/g/h-compatible
- BPSK, QPSK, 16 QAM, 64 QAM, DBPSK, DQPSK, and CCK modulation schemes
- WEP, TKIP, and AES, WPA, WPA2 hardware encryption Schemes

This application note also explains how to use of the Synergy's WebTouch Remote™ feature to control the chamber with a standard web browser and the FTP server to drag-and-drop files to and from the controller. Follow the links below for demonstration videos.

http://tidaleng.com/swf/Synergy_Controller_WebTouch_Remote_Demonstration.htm

http://tidaleng.com/swf/FTP_Server_App_Note_45_Web/FTP_Server_App_Note_45_Web.html

1. Download the driver package https://tidaleng.com/downloads/netrtwlanu_ce6_ce7.zip and copy to your PC Desktop.
2. extract the contents (Netrtwlanu_CE6_CE7.CAB) to the USB Memory stick.
3. Place the USB Memory stick in the front USB Port.

Alternatively:

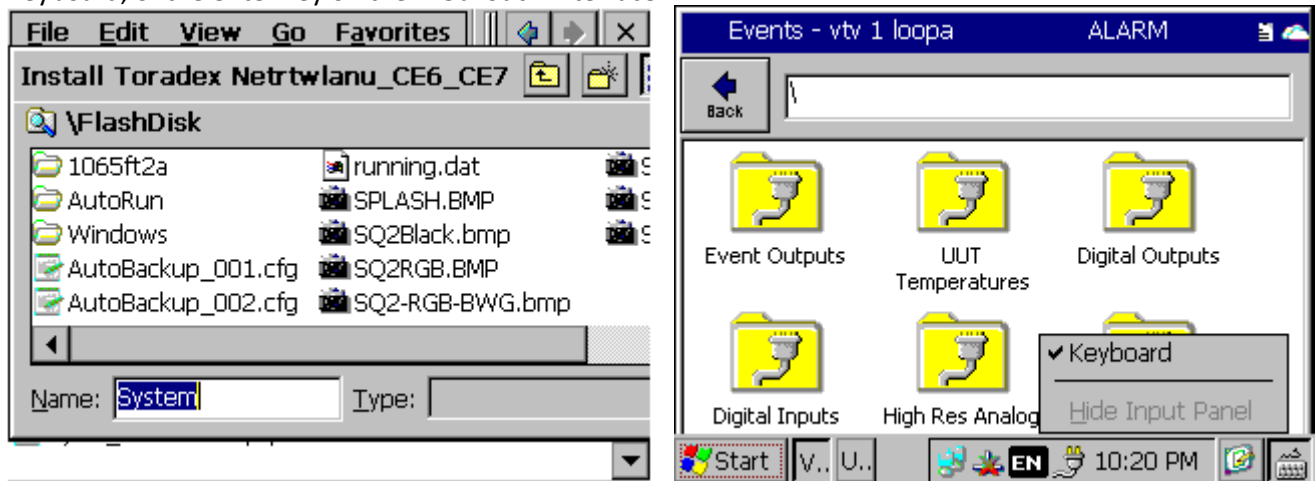
1. this file can be copied to the controller using the Synergy Controllers built-in FTP server when the wired Ethernet connection is available or

2. this file can be copy direct to the SD Card

4. Open the task bar, press the Start button and Browse to windows Explorer.

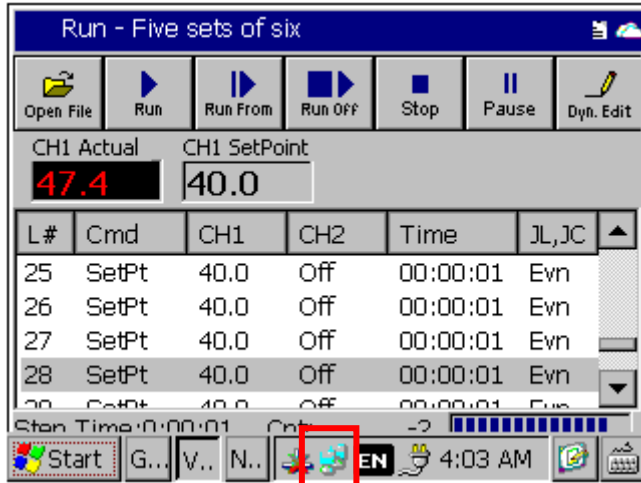
5. Open the USB Hard Disk folder and select the file "Netrtwlanu_CE6_CE7.CAB".

Choose the default directory \FlashDisk\System using the Enter key on the virtual Keyboard, the USB Keyboard, of the enter key on the WebTouch interface.



5. After the driver loads, unplug the USB Hard Disk and plug in the TE2424 Synergy USB Wi-Fi Dongle into the USB Host port.

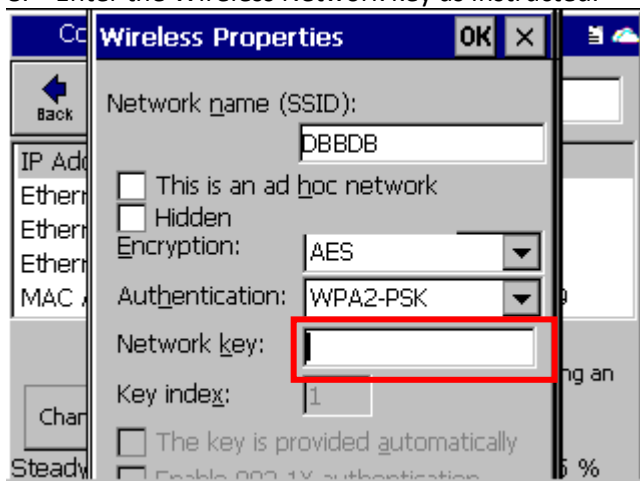
6. Open the NETRTWLANU1 tool from the task bar as shown below

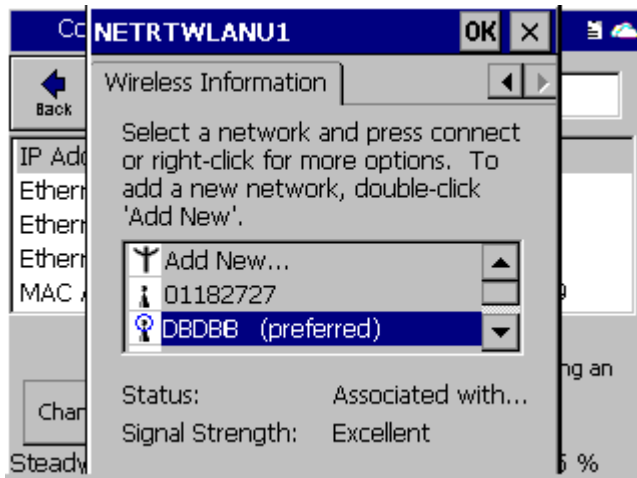


7. Browse to the Wireless Information tab and select your wireless network from the list.

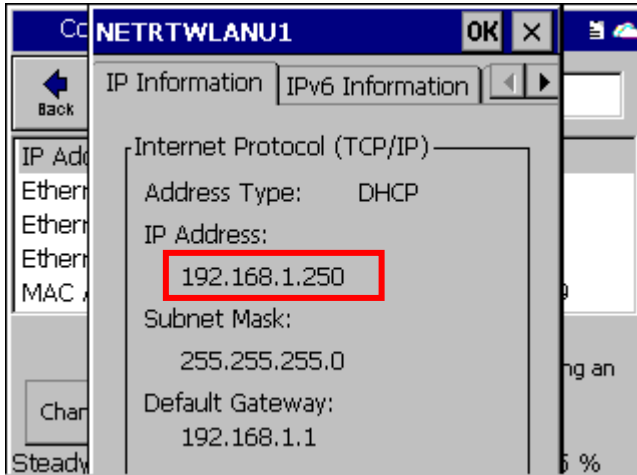


8. Enter the Wireless Network key as instructed.

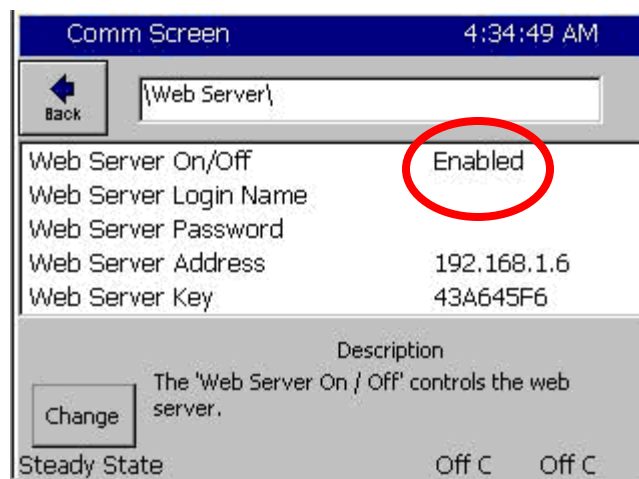




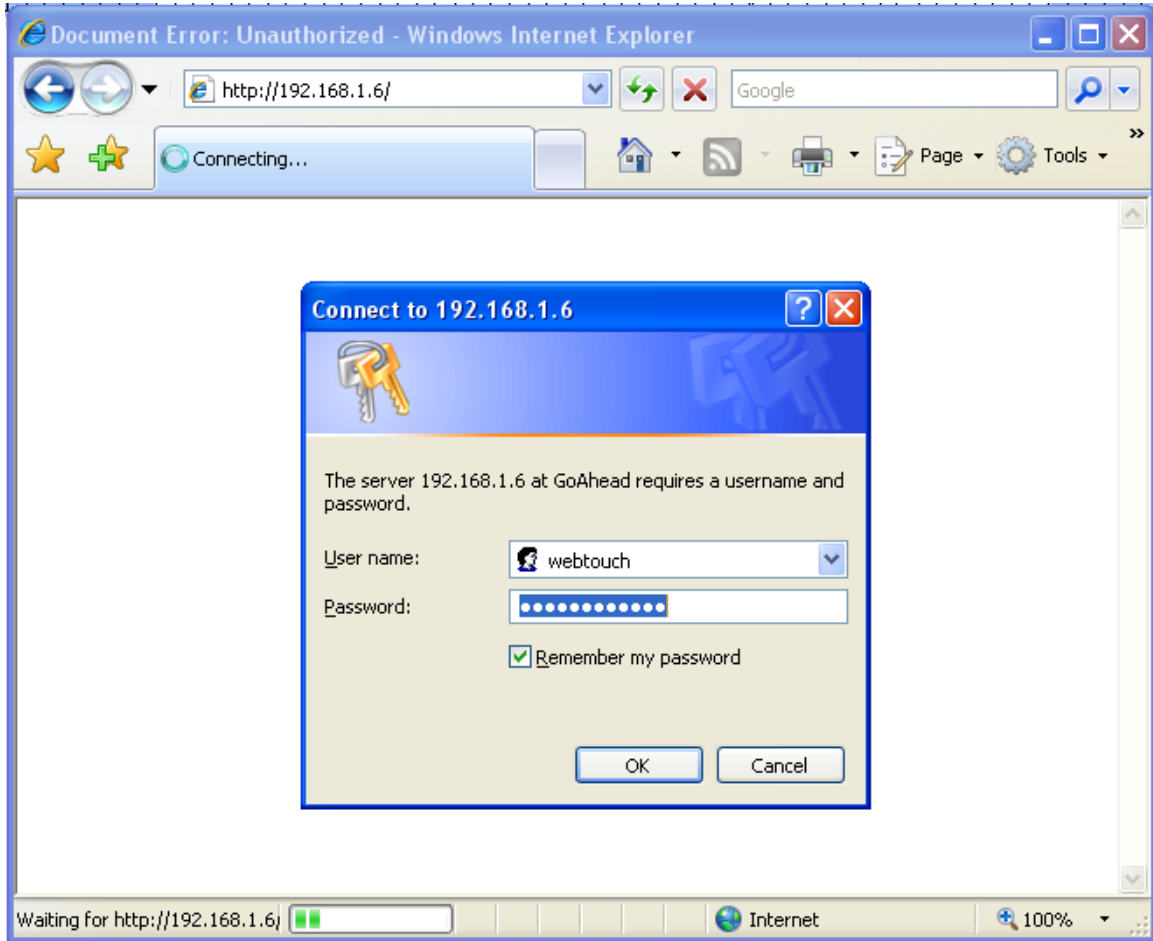
9. Switch to the IP Information to read the IP address assigned by the DHCP server.



10. Note that the COMM\Ethernet Settings will not show the properties of the Wi-Fi Dongle. The COMM\Ethernet Settings folder will show the property of the wired Ethernet network.



1. Type the IP address (Web Server Address) in the address box of your browser as shown below.
2. Then enter the *Username* and *Password*.



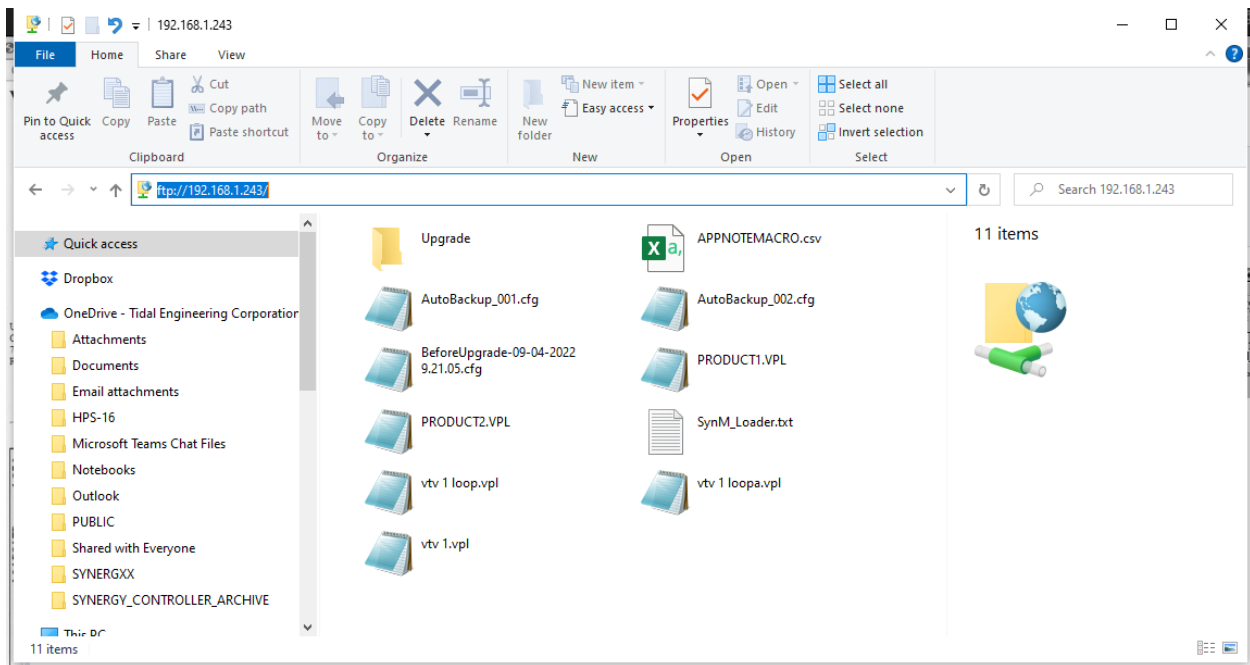
Note that the default username and password are WebTouch and Williamsport.

- The WebTouch Remote™ interface will open in the browser as shown below. From this interface you can operate the touch screen.

The WebTouch Remote™ web server, FTP and Telnet servers are available over the network. Note that not all versions of the Synergy Controller offer an FTP server option.

With the FTP server, you can drag and drop profiles and Macro files to and from the controller. You can also retrieve the history log file from the controller.

To access the FTP server using your computer, type <ftp://192.x.x.168> (use the IP address appropriate for your network and controller). The controller file contents are displayed in the browser window as shown below.



Appendix C Reference Materials

Download the Synergy Quattro data sheet, technical manual, and installation guide here:

http://www.tidaleng.com/datasheets/Synergy_Nano_data_sheet_0945_web.pdf

http://www.tidaleng.com/Synergy_Nano_Technical_Manual_Rev_A08.pdf

http://www.tidaleng.com/techmans/TE2258_REV_A_Synergy_Nano_Installation_Manual.pdf

You can access our YouTube channel to see some of the unique features and benefits of our controllers here: <https://www.youtube.com/channel/UCxJF1O5aUDzcpdlCCoCKh6w>

The application notes on these topics can be accessed using the links below.

[AppNote 1 - Replacing a VersaTenn III Controller](#)

[AppNote 2 - Synergy Controller Data Logging Capacity Calculations](#)

[AppNote 3 - Retrofitting a Qualmark HALT/HASS Chamber :](#)

[AppNote 4 - Configuring the Synergy Controller to Read from a Bar Code scanner :](#)

[AppNote 5 - Synergy Controller vs. VersaTenn III :](#)

[AppNote 7 - Synergy Controller WebTouch Remote Feature](#)

[AppNote 8 - Using SimpleComm application to communicate with the Synergy Controller](#)

[AppNote 10 - Synergy Controller Retransmit Signal Conditioner :](#)

[AppNote 20 - Using the TE1908 Single Channel Thermocouple Signal Conditioner.](#)

[AppNote 25 - Using the Synergy Controller with Space Chamber applications.](#)

[AppNote 26 - Using the programmable User Alarms with the Synergy Controller.](#)

[AppNote 40 - Two Point Calibration.](#)

[AppNote 45 - Using the Synergy Controller's ftp server.](#)

[AppNote 49 - Synergy Controller Security Enhancements.](#)

[AppNote 56 - Using the Synergy Controller Watchdog Timers.](#)

[AppNote 58 - Synergy Controller Wet-Bulb/Dry-Bulb Humidity Measurements.](#)

[AppNote 59 - Synergy Controller Wireless Network Setup.](#)

[AppNote 60 - Graphing Synergy Log Files in Microsoft Excel.](#)

[AppNote 67 - Synergy Controller Mounting Options.](#)

[AppNote 71 - Synergy Controller PWM Retransmit Feature](#)

[AppNote 72 - Synergy Controller Thermocouple Data Acquisition with Synergy UUT Modules](#)

[AppNote 74 - Synergy Controller LED Backlight Retrofit Kit](#)

[AppNote 77 - Synergy Controller Remote Start/Stop Feature](#)

[AppNote 84 - Synergy Controller E-Mail Feature](#)

[AppNote 85 - Synergy Controller Logging Features and Applications](#)

[AppNote 89 - Synergy Controller Loop-Back Setup](#)

[AppNote 90 - Synergy Controller Network Printing Feature](#)

[AppNote 91 - Synergy Controller Built-In Alarms](#)

[AppNote 95 - Synergy Controller Kft and other Pressure Display](#)

[AppNote 96 - Synergy Controller Analog Retransmit Applications](#)

[AppNote 99 - Synergy Server Feature](#)

[AppNote 102 - Synergy Certified OEM and Installer Training](#)

[AppNote 106 - Synergy Controller Cascade Loop \(Part Temperature\) Control Feature](#)

[AppNote 107 - Synergy Controller Programming with Python](#)

[AppNote 109 - Synergy488 Kit Setup for Synergy Nano and Synergy Quattro GPIB](#)

[AppNote 112 - General Purpose Logic Programming for OEMS and Integrators](#)

[AppNote 113 - Main Screen Display Setup Options](#)

[AppNote 116 - Synergy Controller Pressure Applications](#)

[AppNote 117 - Synergy Controller Help System Video QR Codes.](#)

[AppNote 121- Synergy Controller Ramp Rate Control](#)



About the Synergy Controller Family

Tidal Engineering's Synergy Controllers; the ¼ DIN Synergy Nano, the Synergy Micro 2, and the Synergy Quattro provide state-of-the-art usability and connectivity for environmental test control and data acquisition. They combine the functions of a chamber controller and a data logger and are designed to improve test efficiency by supporting both factory automation and test and measurement protocols and standards.

Synergy Controller feature highlights includes:

- ➔ Color touch screen
- ➔ Ethernet, RS-232 and GPIB communications
- ➔ Built in 100 MB Data logger with USB drive support
- ➔ Data Acquisition, up to 64 T-type thermocouples (Optional)
- ➔ Built-in Web Server for remote control; WebTouch Remote™
- ➔ Compatible with Synergy Manager for PC based control, monitoring and programming.
- ➔ Built-in FTP Server for factory automation and test and measurement applications

For more information regarding these controllers please see the full Synergy Controller Technical Manual on our website at <http://www.tidaleng.com/synergy.htm>

About Tidal Engineering

Headquartered in Randolph, NJ, Tidal Engineering Corporation has been designing and building award-winning embedded hardware and software for test and measurement and data acquisition applications since 1992. The company is recognized for technical expertise in such areas as Embedded IEEE 488, and turnkey SCADA (Supervisory Control and Data Acquisition) systems.

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