



Quick Start Guide

WSDA[®]-1000



Wireless Sensor Data Aggregator with Ethernet Interface

Version

- WSDA[®]-1000 firmware 2.0.17 and higher
- Node Commander[®] software 2.2.3 and higher
- Live Connect software 1.0.5 and higher

Starter Kit

- 1 WSDA[®]-1000 (Wireless Sensor Data Aggregator with an Ethernet interface)
- 1 2.4 GHz whip antenna
- 1 9VDC power supply
- 4 universal plug adapters
- 1 WSDA[®] access card
- 1 documentation CD containing the Live Connect and Node Commander[®] software.(Windows[®] XP, Vista, 7)
- 1 Ethernet cable (6 feet long)

Software Installation

- Insert the software CD into your CD-ROM drive and follow the on-screen instructions to install the software.

Hardware Installation

1. Install the antenna by hand on the RF connector on the back of the WSDA[®]. Do not over-tighten.
2. Install the Ethernet cable into the Ethernet port on the back of the WSDA[®] and into the LAN.
3. Attach the appropriate plug adapter to the power supply.
4. Connect the power supply to the power connector on the back of the WSDA[®] and to the local power source.

- Turn the WSDA[®] power switch on (up position).
- The WSDA[®] will commence its 3 stage boot-up process as described in Figure 1 and Table 1 below. This will take between 2 and 3 minutes.



Figure 1. WSDA Face Plate

Stage	Web LED	WSDA LED	Power LED
1. Initial Power On	Red	Red	Green
2. Booting Up	Red	Blinking Blue	Green
3. Fully Booted	Green	Green	Green

Table 1. WSDA LED Key

Login to the WSDA[®]

- Launch the Live Connect software which is found in:
start > All Programs > MicroStrain > Live Connect

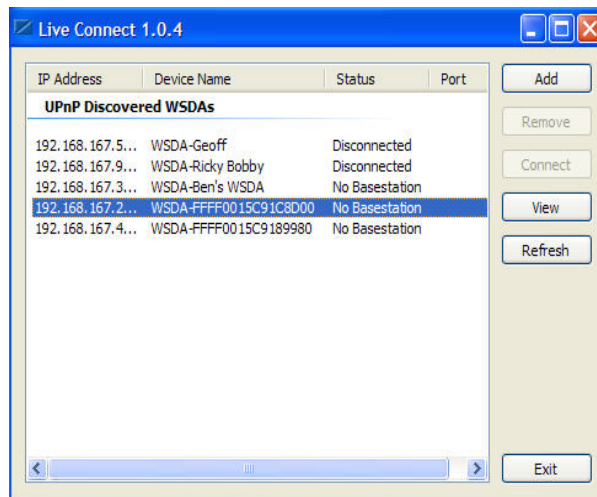


Figure 2. Live Connect Interface

- The Live Connect window will appear, automatically scan for WSDA[®], and in a moment display your WSDA[®] IP address and serial number as shown in Figure 2.

3. Confirm that the serial number shown in the Live Connect window is the same as the serial number recorded on your WSDA[®] access card.
4. Click on your WSDA[®] to highlight it as shown in Figure 2.
5. Click the View button.
6. A web browser window will spawn with the WSDA[®] Login window as shown in Figure 3.
7. Enter your WSDA[®] Control Panel login credentials. The factory default credentials are:
Login: wsda
Password: wsda
8. Click the Authenticate button.
9. The WSDA[®] Control Panel window will appear.



Figure 3. WSDA Login

WSDA[®] Control Panel and WSDA[®] Modes

- The WSDA[®] Control Panel allows you to perform diagnostics, configure, reboot, update firmware and change the password on the WSDA[®].
- The Control Panel also allows you to change the mode of your WSDA[®] between Aggregate Data and Live Connect.
- By default, the WSDA[®] is set to Aggregate Data mode which means that it is ready to receive, store and/or forward the data arriving from the wireless sensor nodes (V-Link[®]-mXRS[™], SG-Link[®]-mXRS[™], G-Link[®]-mXRS[™], etc.). This is one-way traffic; the nodes transmit and the WSDA[®] receives.

Specifically WSDA[®] will receive:

1. Legacy Low Duty Cycle (LDC) data
2. Legacy TC-Link[®] data
3. -mXRS[™] Continuous and Burst Synchronized Sampling data

- In Live Connect mode, the WSDA[®] is able to communicate with the wireless sensor network via Node Commander[®] software and perform all the Node Commander[®] functions including diagnostics, configuration, wizards, update firmware, etc.
- *Note: Please refer to our WSDA[®] Control Panel Users Guide for a full step-by-step explanation of its use.*

Set the WSDA[®] to Live Connect mode

1. Returning to the WSDA[®] Control Panel, click Configuration in the Tools menu.
2. The Configuration window will appear.
3. Click the Live Connect radio button in the WSDA[®] Mode section.
4. Click the Update WSDA[®] Mode button, the window will refresh and the mode will be changed.
5. Click Logout and close your WSDA[®] Control Panel browser window.
6. Return to the Live Connect program. The WSDA[®] will remove itself from the Live Connect list of discovered WSDAs and will repopulate once the recent changes take effect.
7. Highlight your WSDA[®] and the Connect button will become enabled.
8. Click Connect. In a moment the Status will change from Disconnected to Connected and a COM port will be assigned.
9. The example in Figure 4 shows a WSDA[®] connected on COM 2.

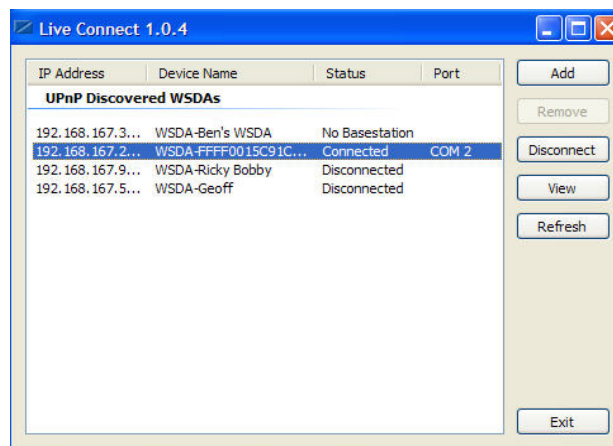


Figure 4. Live Connect with WSDA Connected

Using Node Commander[®]

1. Launch the Node Commander[®] software and the Main screen will appear.

2. The WSDA[®] will now be found and reported in the Controller frame as Base Station Com X. Figure 5 shows an example Com 2.
 3. Node Commander[®] can now be used to configure the wireless nodes for operation, perform calibration using the wizards, set the sampling mode to one of the Aggregate Data modes previously mentioned, and so forth. For those users familiar with MicroStrain's previous base stations, the WSDA[®] is now operating as if it was a base station.
- **Note: Please refer to our Node Commander[®] Users Guide for a full step-by-step explanation of its use.**

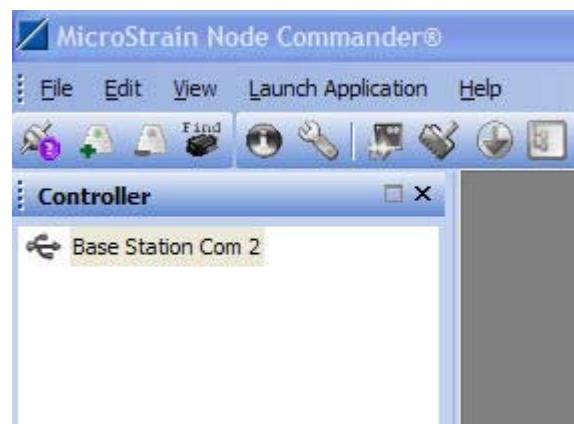


Figure 5. Node Commander

Set the WSDA[®] to Aggregate Data mode

1. After having configured the nodes for sampling, close Node Commander[®].
2. Return to Live Connect.
3. Highlight your WSDA[®], click Disconnect, and in a moment, the WSDA[®] will be disconnected.
4. Again highlight your WSDA[®], click View, login, and the WSDA[®] Control Panel will appear.
5. Click Configuration in the Tools menu.
6. The Configuration window will appear.
7. Click the Aggregate Data radio button in the WSDA[®] Mode section.
8. Click the Update WSDA[®] Mode button, the window will refresh and the mode will be changed.
9. Click Logout and close your WSDA[®] Control Panel browser window.
10. Return to Live Connect and click Exit to close the program.

11. Your WSDA[®] is now returned to its default mode and will begin actively collecting data from your wireless nodes. This data will be stored in on-board memory and will be forwarded when connection is made to the SensorCloud[™].

Connect to SensorCloud[™]

1. Launch your web browser.
 2. Following the instructions on your WSDA access card, enter the SensorCloud[™] Site URL, i.e., <http://www.sensorcloud.com> and click the Login menu item.
 3. The Login screen will appear; enter the Username (example: FFFF001234567890) and the Password (example: BTp16oW6) from the access card.
 4. Click the Login to SensorCloud[™] button and the SensorCloud[™] interface will appear.
 5. If you have set your wireless nodes to sampling as previously instructed, the data will have arrived into the interface and will be available for immediate viewing, analysis, etc.
- *Note: Please refer to our SensorCloud[™] Users Guide for a full step-by-step explanation of its use.*

Congratulations! Your WSDA[®] is operational!

Your SensorCloud[™] account

MicroStrain provides each new WSDA[®] user with a free SensorCloud[™] Basic Account. The account allows you to immediately send your data to SensorCloud[™], familiarize yourself with its operation, and take advantage of its unique sensor data storage, visualization, analysis and remote management capabilities. Details for upgrading your account can be found at: <http://www.sensorcloud.com/pricing>.

Congratulations!

You are off and running! MicroStrain Support Engineers are always available to help you in any way we can by phone, email, SKYPE or on-line chat.



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