

# LORD QUICK START GUIDE

## SensorConnect™ Sensing Systems Data Acquisition Utility

### 1. SensorConnect

SensorConnect is the data acquisition utility for configuring and coordinating LORD Sensing devices. SensorConnect provides end-to-end sensing solutions from physical sensing to data interpretation across all LORD Sensing product lines.

The user interface collects and displays data from LORD Sensing wireless sensor networks and inertial sensors.

SensorConnect interacts directly with the SensorCloud™ data aggregation platform for seamless transition to data distribution, alerting, and analysis. Log in to SensorCloud from within SensorConnect to view cloud data alongside locally collected data. Initiate a LiveConnect session with a WSDA-Pro device to remotely configure and interact with sensors from anywhere in the world.

### 2. Sensor Installation and Startup

Download SensorConnect from the LORD Sensing website and install on Windows 7, 8.1, or 10.

SensorConnect uses three main menu tabs: Home, Devices, and Data. A link to the SensorCloud™ platform log-in and a software settings menu is also available. On start-up, SensorConnect scans for attached sensors and opens the home page and displays Data Repositories.

**Data Repositories** – Disc locations where data is stored. This includes the Device List, Dashboards, and Sensor data. Use Data Repositories to separate data as needed. All incoming data is collected and stored in the current active Repository.

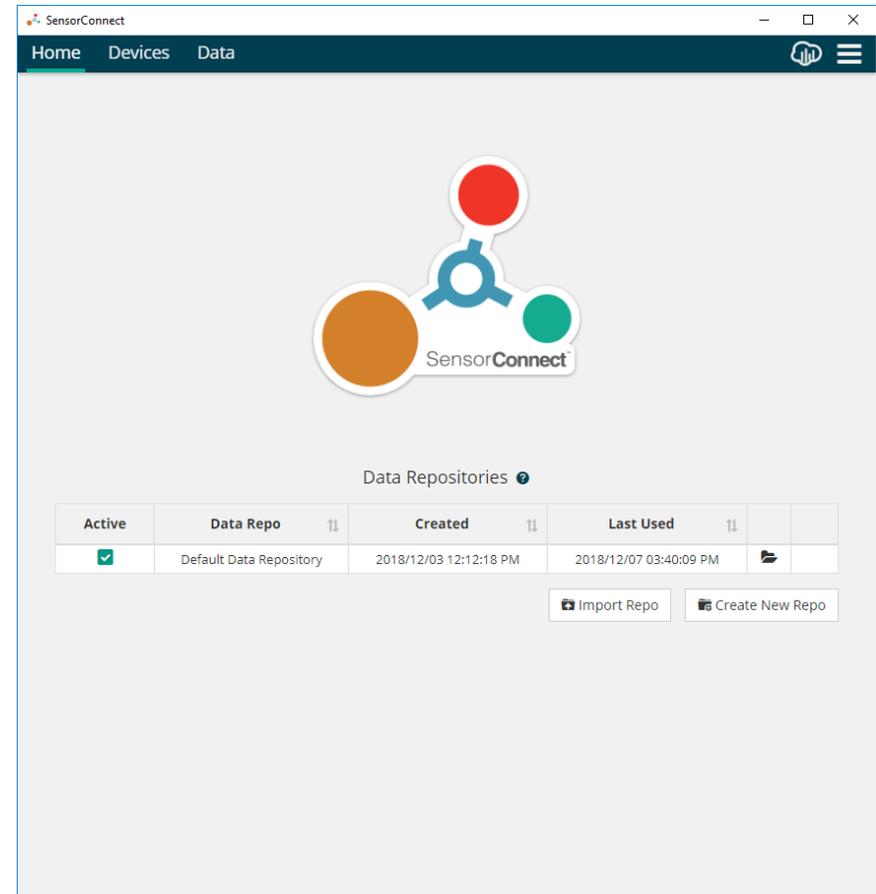


Figure 1. SensorConnect Home Page

### 3. CONNECTING TO DEVICES

SensorConnect detects LORD Sensing devices operating on an active port. Device connections are managed on the Devices page. Menu options vary between devices (gateways, nodes, and sensors) but have similar interfaces.

**Device Menu** - Current and previously found devices display on the Device Menu.

**Selected Device and Device Menu** - Each device has its own menu. Once selected, the device name is highlighted and the corresponding menu displays. Menu options vary between devices but typically include device configuration, start sampling, sensor mode selections, and data downloading. Select the device name in the devices list to return to the Device Menu. Refer to the device user manual for more information on specific features and settings.

**Add Device** - Manually adds a device that was not added automatically.

**Connecting Wireless Devices** – if the node does not appear automatically it is likely on a different frequency, see **Section 6 Working with Wireless Sensor Networks** for more information.

**Connecting Inertial Devices** – devices connected via serial port are not detected automatically and require manual identification via the **+Add Device** button.

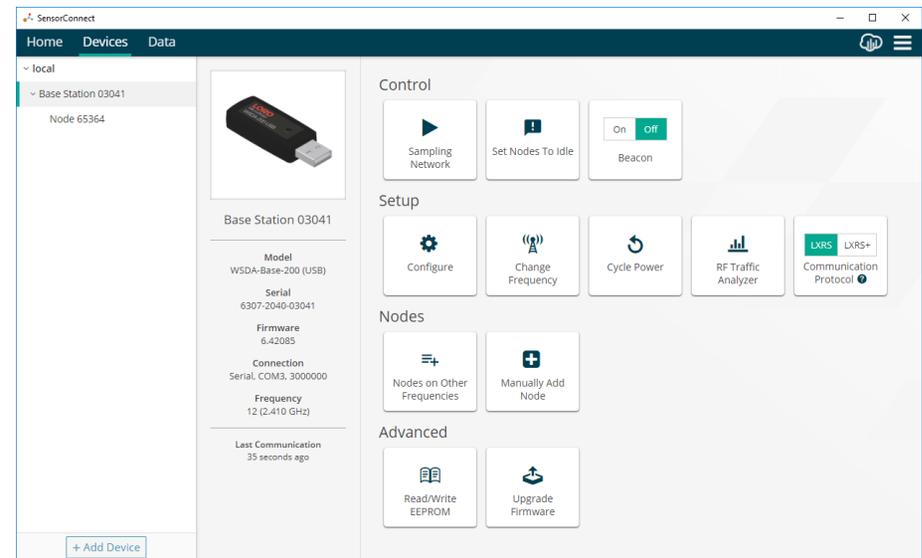


Figure 2. Devices Page

## 4. COLLECTING DATA

Data sampling is initiated for each device through its device menu. For a wireless sensor network, sampling is started for the entire network by initiating sampling from the network gateway menu. The Sampling menu options vary depending on the device.

**Sampling Menu** - The Sampling menu includes options for sampling mode, sample rate, and sample duration. Apply the settings to begin collecting data.

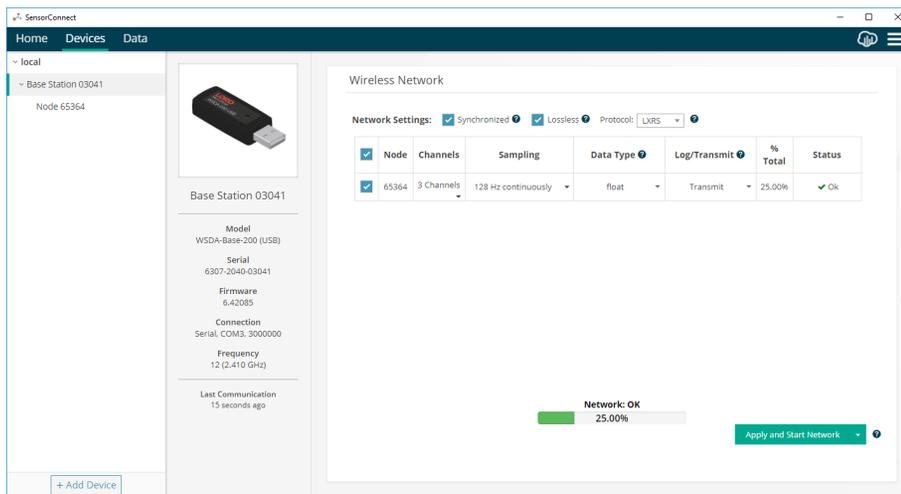


Figure 3. Sampling Menu

**Sampling Indicator** - A blue sampling indicator dot displays when data is being collected from the device.

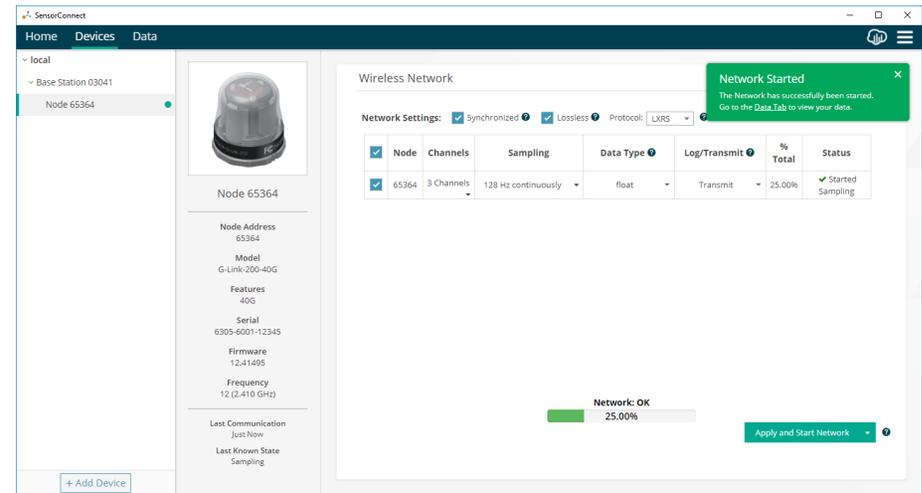


Figure 4. Sampling Indicator

## 5. VIEWING DATA

### Using Dashboards and Widgets

View collected data on the Data page using dashboards and widgets. Dashboards act as individual pages. Widgets act as illustrations. Create additional Dashboards using the dropdown menu at the top of the page. This menu is also used to toggle between active dashboards. Create multiple data widgets on each dashboard to display sampled data as a time-series graph, text chart, or simple gauge that displays the most current reading.

This format provides an easy way to organize many sensors and networks and allows the information to be displayed in an appropriate layout.

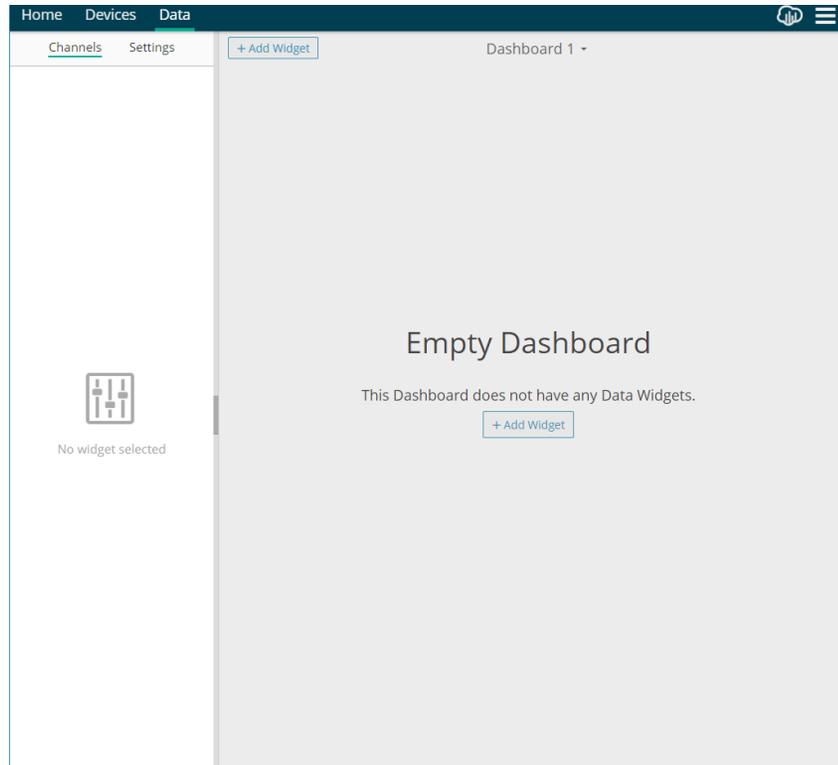


Figure 5. Dashboard

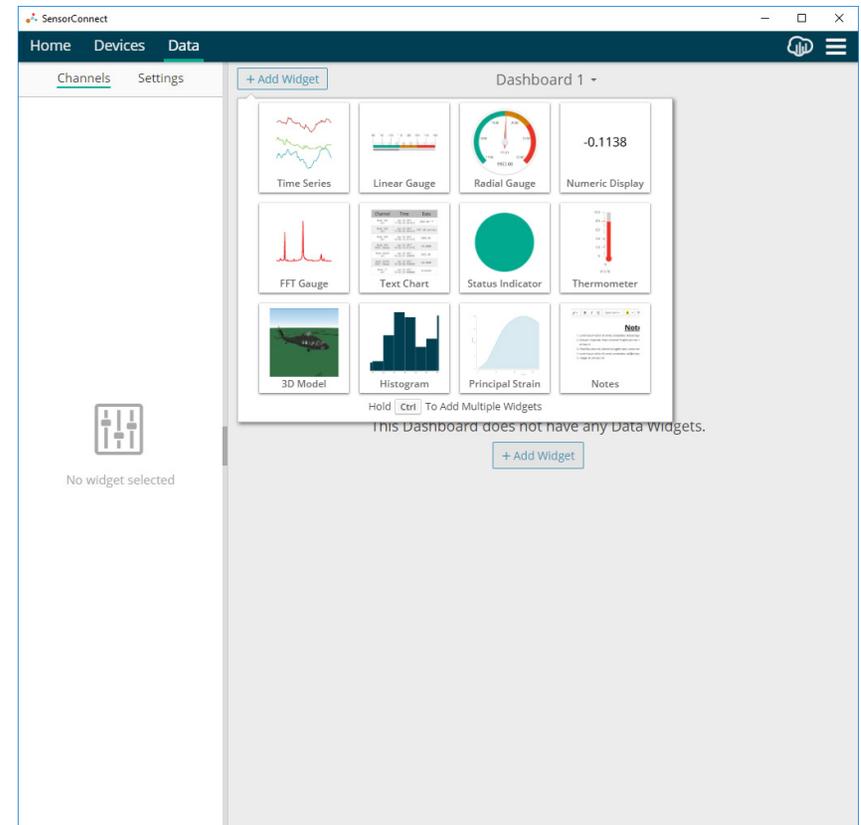


Figure 6. Add Widget Menu

## Widget Options

After adding a widget, left click to select and configure it in the Channels and Settings menu. To add or remove channels from a widget, use the Channels menu.

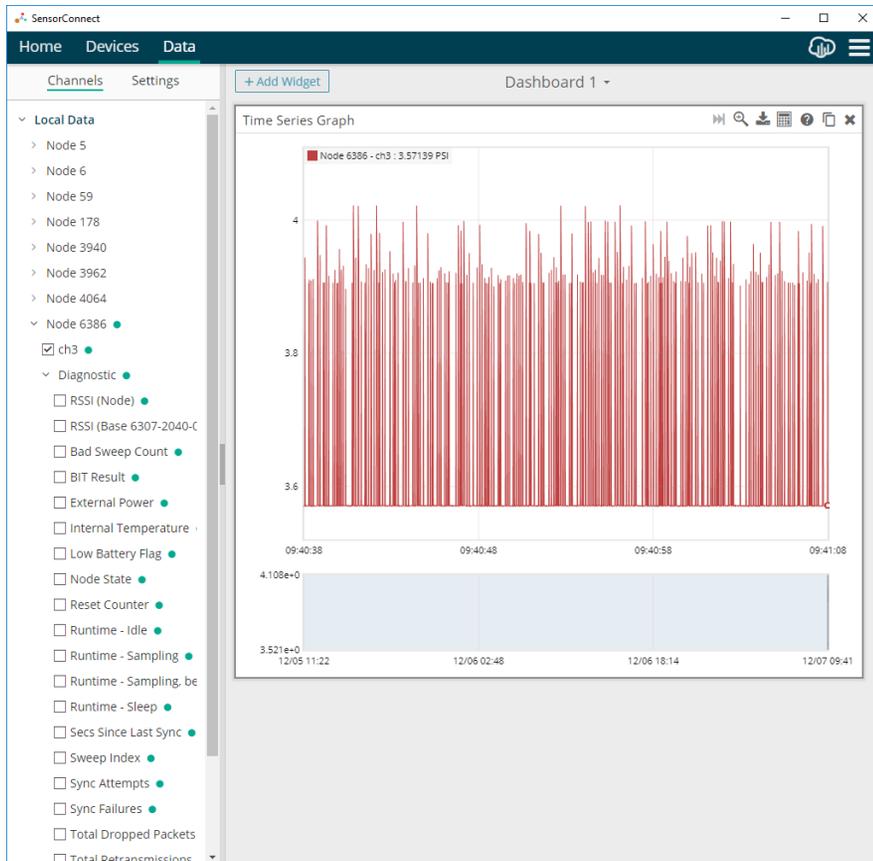


Figure 7. Widget Channel Configuration Menu

Use the Settings tab to configure widget-specific settings such as widget title, display properties, data range, threshold indicators, and add threshold items.

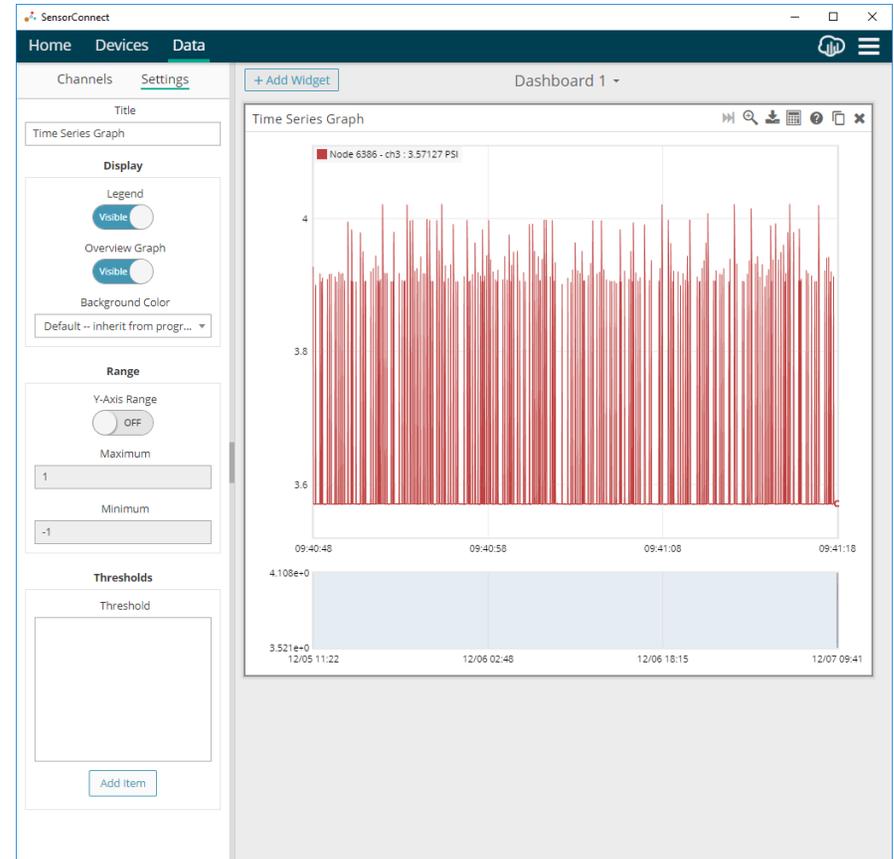


Figure 8. Widget Settings Configuration Menu

## Navigating Graphs

Use a mouse or gestures inside the graph window to adjust the data view.

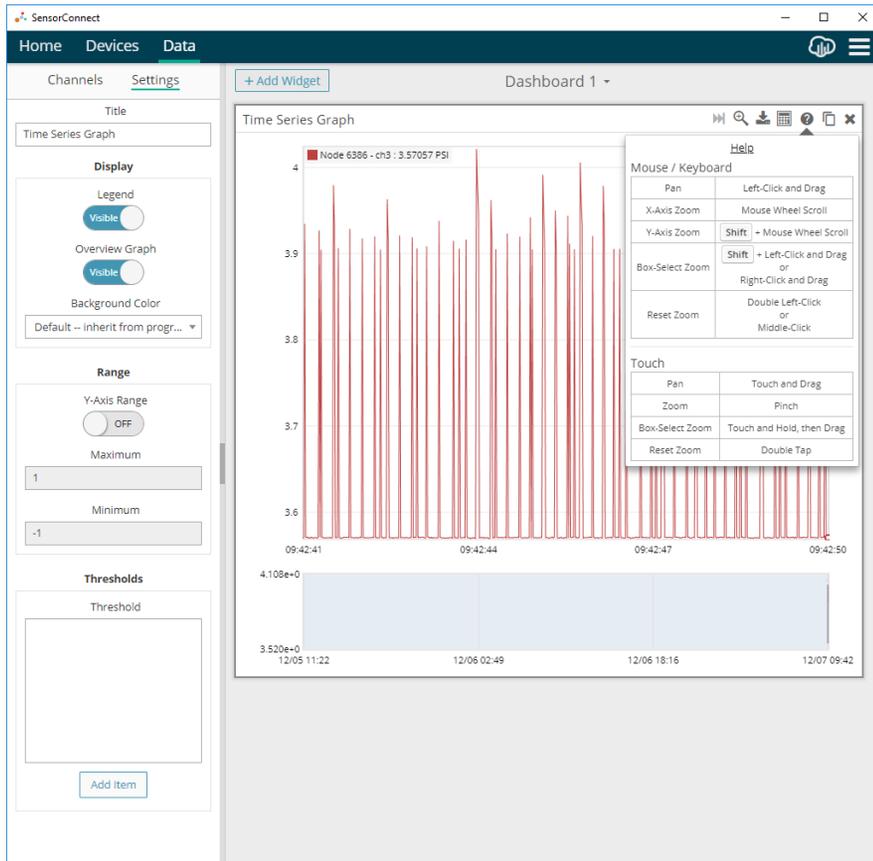


Figure 9. Navigating Graphs

## 6 Working with Wireless Sensor Networks

Transmission frequency and device operating modes effect how SensorConnect operates with LORD Sensing wireless sensor networks.

### Transmission Frequency

Gateways and sensor nodes need to be set to the same transmission frequency to communicate. If the node is on a different frequency, it needs to be moved to the same frequency as the Gateway. Click on the Gateway and select “Nodes on Other Frequencies” to view the discovered Nodes that can be moved.

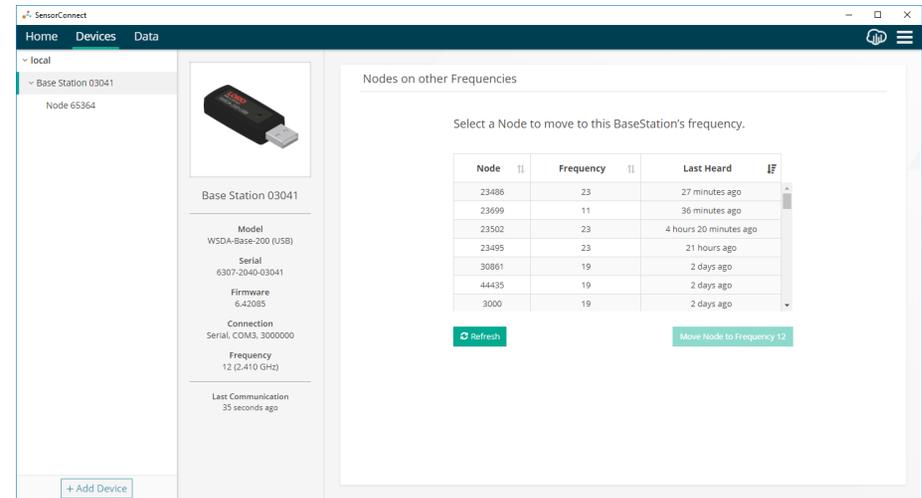


Figure 10. Nodes on Different Frequencies

## Node Operational Modes

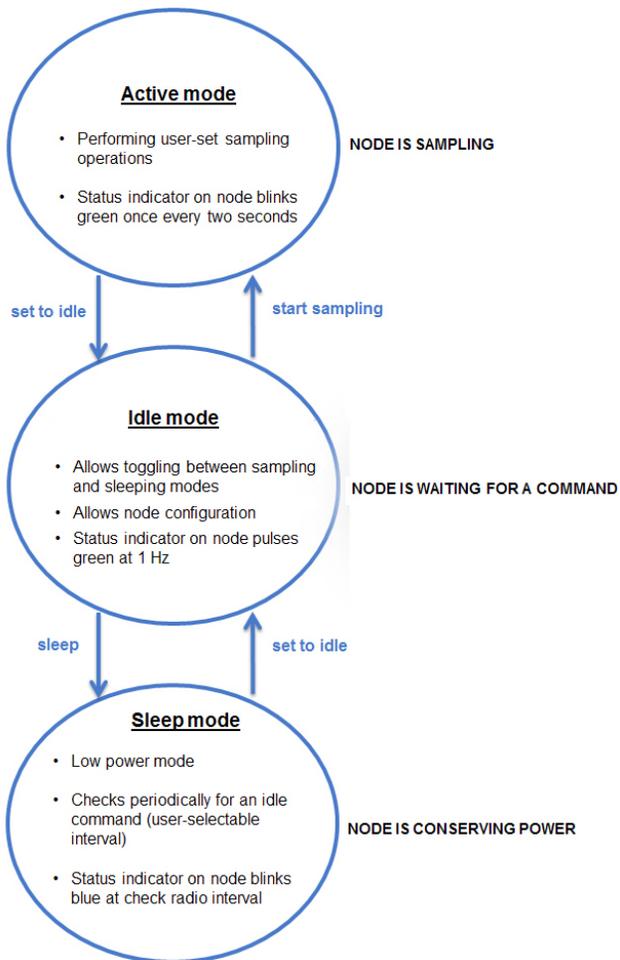


Figure 11. Node Operational Modes

## Synchronized Sampling

To start sampling for a network of Nodes, select the BaseStation and choose the “Sampling Network” button. To start sampling with an individual Node, select the the Node and choose the “Sample” button.

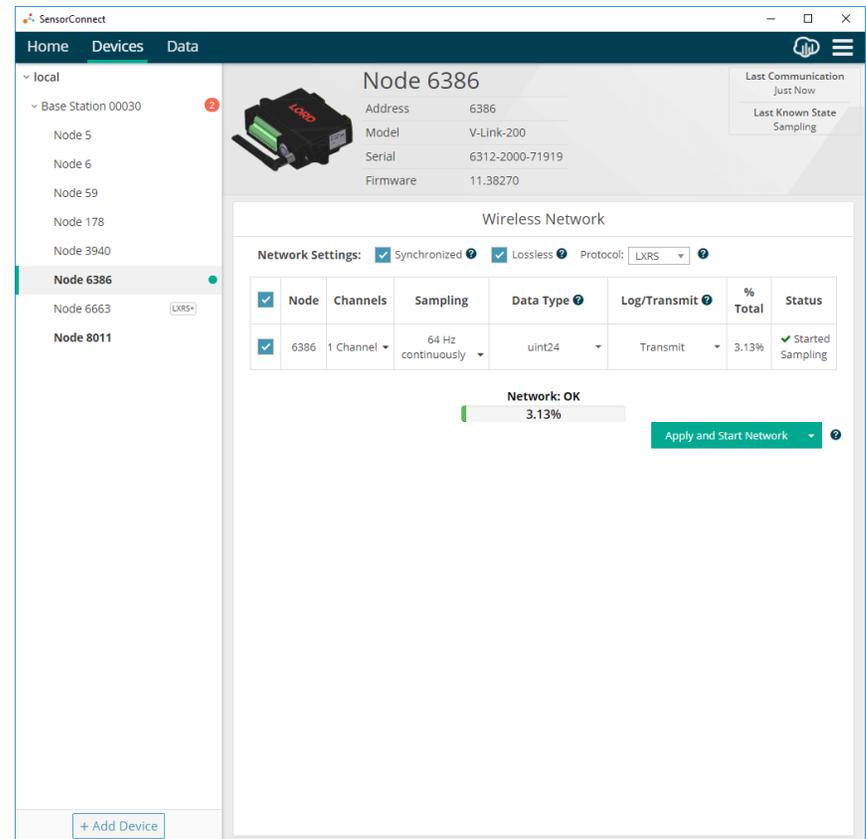


Figure 12. Base Station Menu