

IRROmesh FAQs

SYSTEM OVERVIEW

- What are mesh radios or nodes?*** They are radios that can relay each other's messages to a Base if they are not able to speak to the Base directly due to range or obstructions. For purposes of this document, the words "radio" and "node" are used interchangeably.
- Will I need an installer?*** An IRROmesh system is 'self-deploying', meaning, the radios discover each other. There is no need for specialized installation or programming skills. Simply follow the steps in the Installation and Operating Instructions to install.
- How long will these radios last?*** We estimate at least a six year life expectancy.
- How does the data get to me?*** There are three data collection devices available: a Cellular Gateway, a PC Link, and a Logger. The Cellular Gateway sends data directly to a cloud-hosted WEB service called SensMitWeb using your local cell network. The PC Link (and Logger by option) uses a PC with Windows® software called SensMitPath to send the data to the website. The Logger uses IRROMETER's 975L IRROmesh software to download data from the Logger to a laptop for storage and display.
- Why is the Base not wired to the data collection device ?*** Having a free-standing Base lets you install it in the location (such as atop a tall pole) where it serves the mesh best. A free-standing Base also enables you to exchange data collection devices without affecting the ongoing operation of your system.
- Is my data secure?*** As soon as sensor readings are taken by the radios, they are encrypted and converted into http posts. Decryption does not occur until the data is processed at the website or in the software. Each IRROmesh Node has a unique ID that is 'burned' into the radios when they are first associated with 'their' Base, preventing radios from talking to any other mesh.
- What is the difference between Relay and End Nodes?*** A mesh consists of a Base, a data collection device, a skeleton of Relay and End Nodes, and the Sensors you attach. Relay Nodes collect their own data and relay other nodes' data to the Base. End Nodes collect only their own data and transmit to a Relay Node or directly to the Base.
- Do I need to program anything?*** No. The Base builds all mesh pathways and chooses the optimal frequency sub-band for your system automatically. All you do is name the radios, input their GPS coordinates (if mapping is desired) and set any desired sensor alarms at the website. If a brand new radio is introduced to the mesh, the mesh automatically adopts it.
- What happens if a link is missing – do I lose data?*** IRROmesh has advanced data retention processes, so that if any communication links are missing or temporarily unavailable, the previous component retains all unsent data until the link is re-established. Data is then automatically sent up.
- IRROmesh components don't have batteries – do they still work at night?*** Yes, IRROmesh works 24/7 in all weather conditions. IRROmesh uses super capacitors instead of batteries, and advanced sleeping algorithms to manage power. A short period of full sunlight will recharge a node for over 24 hours of continuous operation. Only the Cellular Gateway has a conventional battery for the modem itself and is charged by a 5 watt solar panel.
- How does 'Sleeping' work?*** The radios use a combination of 'mesh-sleep' and 'self-sleep' to conserve power. In general, the radios are asleep during low/no light conditions, waking briefly every half hour to read sensors and communicate data. During cloudy-bright and lighter conditions, the mesh is fully awake and operating continuously. See the 'Sleeping and Non-flashing Nodes' section.

How does a timestamp get attached to the data?

The time is introduced to the IRROmesh system via the PC used to communicate with it, or via the cell network in the case of a Cellular Gateway.

The radio's case doesn't look waterproof, can I get it wet?

The cases are rainproof but should always be mounted vertically. The components inside the cases are waterproof, but should be kept dry.

Do I need to buy custom mounting hardware?

No. Radios are designed with a standard 3/4" NPT connection and can be installed using 3/4" pipe and fittings to suit your needs. Some examples:



Do I have to use the SensMitWeb Service?

If you wish to stream data in real-time or access SensMitWeb's growing catalog of data reprocessing tools, yes. The SensMitWeb service gives complete access to IRROmesh functionality including system diagnostics and provision for CSV file export. If you just want logged data, once a day for instance, and don't need real-time diagnostic tools, a Logger plus IRROMETER's 975L IRROmesh Windows® based software lets you create the CSV files for storage and display on a laptop or PC using 975L IRROmesh software found at: www.Irrometer.com/download/975-DL.exe.

Can I send the sensor data to other applications?

Yes, for data sent to the Internet you can use SensMitWeb's CSV download function to create a file that most third-party software packages will read. Data downloaded from the Logger is configured as a CSV file by default.

RANGE/COVERAGE

How far can the radios communicate?

The nodes are rated for 1000 ft (305m) over level terrain in clear line-of-sight. Performance varies, but maximum eight hops of 1000 ft (305 m) between Relay Nodes in one 'leg' can be accommodated. End Nodes are rated for 1200 ft (366m).

How many radios can I have per Base?

20 total. You can have up to 12 Relay Nodes per IRROmesh Base, and up to three End Nodes per Relay Node. End Nodes can also communicate directly to the Base.

How close can radios be to each other?

There is no minimum distance.

Do I need to install the radios to have clear line of sight?

Range is greatly improved by installing the nodes to have true 'clear line-of-sight' (CLOs). See user manual and **Installation** section to understand what CLOs means.

How many radios do I need per acre?

Installations range from 10 or more nodes per acre to one node per 30 acres – it depends on what you are sensing, your crop and how uniform your soil conditions/operations are. See <http://www.Irrometer.com/sensors.html> for information on deploying WATERMARK Sensors.

Are the radio waves dangerous?

IRROmesh transmits at about 1/50th the intensity of your mobile phone.

Do I need a license for these radios?

No – they operate on unlicensed bands which are set at the time of manufacture as suitable for use in the USA, Australia, New Zealand, Chile or any country using the ETSI standards (EU market). They are FCC and IC certified and CE marked.

SENSORS

How many sensors can I connect?

End and Relay Nodes (975NR and 975NE) are configured to serve up to three WATERMARK Sensors, a Soil Temperature Sensor, a tipping rain bucket and an Irrigation On/Off switch. Each node has a sensor that transmits device-internal temperature and each node monitors and reports its internal power levels and charging rates.

How long can the sensor wires be?

Up to 1000 ft (305m) use AWG UF 18 gauge wire. 1001 to 2000 ft (305 to 610m) use AWG UF 16 gauge wire. 2001 to 3000 ft (610 to 914m) use AWG UF 14 gauge wire.

CONNECTIVITY

Where can I view my data?

If your data is automatically uploaded to the Internet you can access **www.SensMitWeb.com** from any PC, Smartphone or Tablet connected to the web. If you are using the Logger, any device running a full Windows® OS (not mobile) is acceptable.

I look at my web login but it's not updating, or shows old information, or says that my mesh has not delivered any data yet when I know it has – what's wrong?

Log out and log in again.

Where do I get the Windows® applications I need to send data up to the web?

Go to **http://www.Irrrometer.com/download/sensmit_installer.exe**. Follow the SensMitPath installation instructions. If you are just logging data to use in IRRROMETER's 975L IRRROmesh software, download the software from: **<http://www.Irrrometer.com/download/975-DL.exe>**.

How do I use SensMitPath?

Go to 'Notes for Using SensMitPath' at: **<http://sensmitwebdiv.com/wp-content/uploads/2014/01/Notes-for-Using-SensMitPath.pdf>**

How does SensMit connectivity work?

IRRROmesh is unique in the way data is retained and transferred. Because each component of IRRROmesh (except nodes) can retain months of data, each link and device is in effect a data logger awaiting download in either real-time or when the user downloads it manually.

My base runs low on power at night.

Your Base may not be sleeping. At least one Relay Node is needed, otherwise, the Base does not know when to sleep. If the Base is still not making it through the night, ensure that the connection to its super capacitors is not interrupted.

I want to stream data from my Internet-enabled on-site facility – which data collection device do I need?

The simplest data collection device to use is the PC Link. It must be in sight and within 300 to 800 ft (92 to 244m) of the Base to receive data.

How does PC Link work?

When the PC Link is plugged in to a PC (or any other USB power device), it will collect and store data coming from the IRRROmesh Base. If plugged into a PC with its SensMitPath software running but not connected to the Internet, the data will be stored on the PC. When the PC is connected to the Internet and SensMitPath is running, any stored data will be sent to SensMitWeb, and any incoming data from PC Link will stream to the website in real time.

I plugged in my PC Link but nothing is happening.

It can take up to an hour for the PC Link device to charge up the first time it is installed.

I want to stream data from a remote location – what do I need to order?

You would need a Cellular Gateway. Work with your IRROmesh provider to determine the best option for you.

Do not exchange the SIM card that comes with the Cellular Gateway for another – it will not work.

Which PC do I use for PC Link and Logger download?

You can use any Windows® based PC or a tablet using a full Windows® version (not Windows® Mobile). If you are streaming data, ensure the PC's automatic sleeping is disabled completely and that SensMitPath is placed in the PC's auto-start menu so it can recover after automated Windows® updates and power interruptions. Instructions are at <http://SensMitWebdiv.com/resources/>. Your computer's anti-virus software and firewall protections may not allow SensMitPath software access to the Internet. They must be configured to allow access through the firewall, usually by adding SensMitPath to the 'exceptions' list of the security program(s). Most firewalls support SensMitPath access, but some may corrupt the postings and create transmissions errors, showing 400 series error codes in the SensMitPath display window.

When should the Logger be used?

Non-real-time systems that use the Logger are for cases where there is no web-connectivity on site or if your preference is to manually collect and store your data. EXAMPLE: Download times for a system with 12 nodes, from the Logger to laptop, can take about one minute per day of data.

How do I start my Logger?

After the Logger is fully charged and associated and before installing the Logger in the field, connect it to your computer. Initiate IRROMETER's 975L IRROmesh software at <http://www.Irrometer.com/download/975-DL.exe>. **Once the program is loaded and running, click 'Find SensMit' and wait until the time at the bottom left of the software's pop-up window shows the hours and minutes and seconds in your local time.** The displayed time in the program's dialogue box must match your computer time **before** you disconnect the Logger's USB plug. The Logger is now ready to put in the field near the Base.

How do I download my Logger?

While in the field at the Logger location, download the Logger by first starting 975L IRROmesh software or SensMitPath on the computer being used in the field. Plug in the Logger's built-in USB cable. If it does not auto-find your data, click the 'Find SensMit' button. Alternately, first plug in the Logger's USB and then start the program. You may need to click the 'Find SensMit' button or unplug and re-plug the Logger's USB cable if the download does not start automatically. **You will know the download is complete when you see "Nothing to Post Zzz..." in the program's dialogue box.**

Logger is meant to be downloaded in the field to a laptop or full Windows® version tablet with a USB port. The laptop's/tablet's time is carried by the Logger to the mesh if it is left turned on after downloading and then sees the Base. Otherwise the mesh time will prevail.

The Base always sends the Logger any data it has stored, so the Logger does not miss data if it is taken from the field for a period of time. When brought back to field, the Base will send all data since the Logger left.

My PC Link or Logger is properly connected and SensMitPath is running but it's not finding the device.

1. Make sure you only have one version of SensMitPath or 975L IRROmesh software running.
2. Click the 'Find SensMit' button and wait for a minute. If that does not work a driver may be missing. The cable that connects the Logger or PC Link to your PC needs a special driver that does not always install automatically.

Go to <http://www.ftdichip.com/Drivers/VCP.htm> to download the driver, and follow the installation instructions.

My Logger has downloaded, so where is the data now?

The data is stored in a file called **logger.BZXXXXXX.csv**, where 'BZXXXXXX' represents the Logger ID number. You can find it in the same directory on your computer as 975L IRROmesh software or SensMitPath. If you are using 975L IRROmesh software the data is stored as a CSV file and can be displayed by clicking on 'Graph 975L Data File' on the 975L software opening screen, or exported into any other application that supports CSV format.

If you are streaming data to the website, the post file's data will automatically be sent up to the site by SensMitPath, which must be running, where it will be decrypted and displayed. (Subscription fees apply.)

DATA

Why does my Data not get sent to the web as soon as it is collected – I have to wait as long as 10 minutes for it to appear?

Data upload times are staggered to reduce traffic jams in the data flow to the website.

Can I change how often the data is collected?

No. The data collection and storage interval is currently fixed at 30 minutes. Data is reported to the SensMitWeb site every 30 minutes while the mesh is awake, and once an hour when it is asleep.

Can I send data to other applications?

Yes. CSV data files can be created from the information stored on the site and then can be downloaded for use in other applications. The site is being upgraded to provide full API capabilities to enable real-time data sharing. (*Fees apply.*)

What does the sensor data mean?

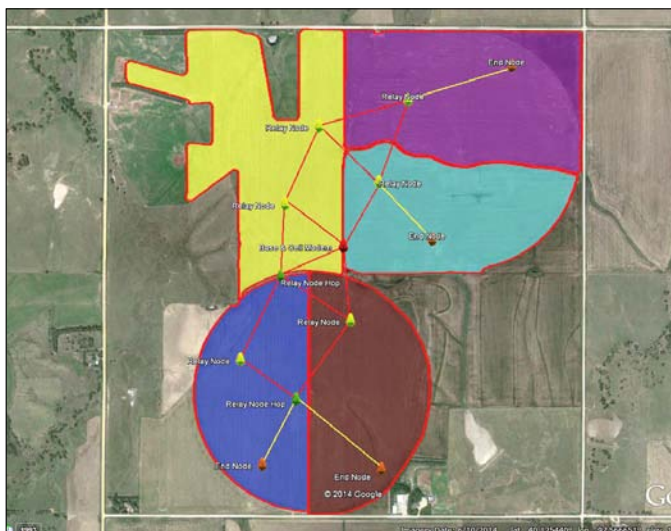
The www.Irrrometer.com site provides complete information on using WATERMARK Soil Moisture Sensors. Each node's internal temperature sensor gives the temperature inside its case. In general, the night-time temperatures given are similar to adjacent air temperatures minus wind effects. Daytime temps shown are 'greenhouse' temperatures and will usually be a lot higher than the outside air temperature.

DESIGN

Where can I find an installation manual?

Each IRROmesh system is shipped with Installation and Operating Instructions. Loggers are shipped with their own user manual. They can also be downloaded from Irrrometer.com/downloads.html#mon at the 'IRROmesh Instruction Manuals' dropdown.

What does an IRROmesh installation look like?



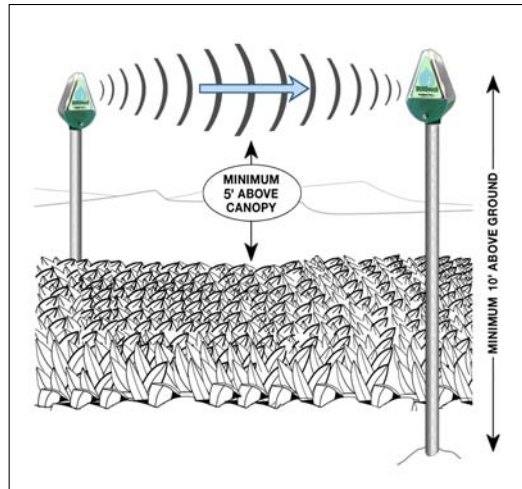
How do I design my mesh layout?

Your supplier may provide a design service for you. You can also do it yourself – read ALL the steps before starting.

1. Get a satellite or Google Earth® image on paper of your site in a known scale.
2. Make one circle template that represents 1000 ft (305m) radius = 2000 ft (610m) diameter and one circle template that represents 800 ft (244m) radius = 1600 ft (488m) diameter in that scale. The 800 ft radius circle is the design range over which the first ring of radios communicate.
3. Pick a location for your Base – ideally, as near the site's center as possible for the Logger or Cell Gateway devices, or within 800 ft (244m) of your PC Link.
4. Use the 800 ft circle template to pencil the range around the Base. The first ring of Relay Nodes must be placed at least in that circle. Draw a circle around the new Relay Node with the 1000 ft radius template. It is fine, and in fact preferred, if circles overlap!

5. Move outwards from the Base's circle and continue drawing circles for Relay Nodes building a 'skeleton' until you have reached the edges of the whole site – you can have 12 Relay Nodes per Base. Make sure that there are at least two routes from each Relay Node back to the Base.

6. If there are any other areas where you want a sensing station, put End Nodes in to fill in the gaps. There can be three End Nodes per Relay Node, not to exceed 20 total nodes per Base.



Nodes must have clear line-of-sight to perform well at maximum range. They must be 8 ft to 10 ft (2.5m to 3m) above the ground and at least 5 ft (1.5m), above the final crop height, for maximum range. See the diagram (left) for horizontal clear areas.

There should be no obstructions between the nodes, behind the nodes, or above the nodes.

What does clear line of sight look like?

What do 'Associate' and 'Join' mean in IRROmesh language?

Associate means to link a device with the unique Base ID that defines each IRROmesh system. This is a semi-permanent action that prevents the device from speaking to any other Base. Join applies to a previously associated device connecting to either the Base or another node of 'its' mesh.

What do the light flashes of a Normal Node look like?

1. **During data collection/transmission** — you will see the green light flashing continuously and an occasional amber flash.
2. **For a sleeping node** — you will see some brief green flashes every 30 to 60 minutes.
3. **During disassociation from the Base** — see below
4. **When the Logger is being locked out by 975L IRROmesh software** — the red light flashes on a two second interval.

Unassociated — this node has not been associated with a Base yet and is trying to find a Base with which to associate. You will see repetitions of the red, amber and green cycling, and then the red and amber flashing together. Once it has associated with the Base, the green light will flash and pulse.

Seeking — this node has been associated with a Base before, and is now trying to join the mesh. You will see just the red and amber flashing together, and some non-flashing times as the unit waits to retry the join.

Start-up — this sequence shows a node that has either just reset or whose increasing voltage has just enabled it to start up. You will see the red, amber and green lights scroll for a few cycles, and then see the red and amber lights flash together until the Base is found. Then you will see the green light start to flash.

No lights are flashing on my node — is it working?

No lights mean either the device is completely de-powered, though more likely, it is either resting in between attempts to rejoin the mesh or it is asleep. If it is resting, it will try to rejoin the mesh every 10 minutes. If it is asleep, it may not show any lights for up to one hour.

Do the nodes' solar panels have to be in full sun?

Cloudy-bright conditions are enough for nodes to manage all charging and operational processes. For **Relay Nodes**, it is best that one panel is in full light as often as possible. When even one Relay Node of a whole system doesn't have either panel in full-light the whole system can go to sleep. For **End Nodes**, it is fine if the panels are not in full light.

INSTALLATION

How do I install my mesh?

See the IRROmesh Installation and Operating Instructions for full details.

Prepare to Install:

1. Start charging Base in bright conditions – once green light is flashing and data collection device (see below) has joined, turn the Base off by sliding the switch inside the capacitor housing to 'OFF' and covering the solar panels so they do not get any light.
2. Prepare Data Collection Device
 - a. **Logger** — need to associate and join – start charging at the same time and right beside the Base until red and amber lights are flashing together on intervals (you will also see all three lights rippling on and off intermittently) and then flashes green or it goes to sleep.
 - b. **Cellular Gateway** — need to associate and join – turn on and verify that red light on the modem itself is flashing once per two seconds. Verify that red and amber lights are flashing together on intervals (you will also see all three lights rippling on and off intermittently) and then flashes green or goes to sleep.
 - c. **PC Link** — need to associate and join – leave plugged into a PC or USB power source for an hour or more to fully charge and start looking for the Base. Verify that red and amber lights are flashing together on intervals (you will also see all three lights rippling on and off intermittently) and then flashes green or goes to sleep.
3. Place all Nodes within 2 ft (60cm) of each other in the sun and let them charge until red and amber lights are flashing together on intervals (you will also see all three lights rippling on and off intermittently). *NOTE: There can be intervals of up to five minutes between light flash sequences.*
4. Bring the un-powered Base within a 2 ft (60cm) range of the nodes, turn the Base on and leave all together for an hour or less until all nodes are flashing green, have flashed green, or have flashed green and turned off (evidenced when they do not flash for five minutes, sleeping).

Install:

1. Install Base first, then the data collection device.
2. For fastest first transmission of data, take the nodes to their final destination one at a time, starting with the one closest to the Base and working outward. If nodes are placed in random order initial reporting will be delayed.
3. Install sensors on nodes once all nodes are reporting.

SLEEPING and NON-FLASHING NODES

My node's lights are not flashing, or none of the mesh's lights are flashing – is something wrong?

It is likely asleep. The nodes use a combination of 'mesh-sleep' and 'self-sleep' to conserve power when they are not in medium to bright light conditions. In general, the radios are asleep (no lights flashing most of the time) during low/no light conditions, waking briefly every half or full hour to read sensors and communicate data.

The whole mesh is awake but my Logger is asleep – is this normal?

Yes, it sleeps most of the time. The Logger's lights come on when you start the download process.

This node is getting lots of light – why is it not awake and flashing?

There are a number of possibilities:

1. The charging system in one of the mesh's routing nodes might not be getting enough power to stay on full-time, which can put the whole mesh to sleep until the next half or full hour.
2. A node just used most of its power to join the Base, resulting in the whole mesh going to sleep.
3. This node could be trying to re-join the mesh, and is sleeping for 30-360 seconds (usually) or up to 16 minutes between tries depending on conditions before trying again.

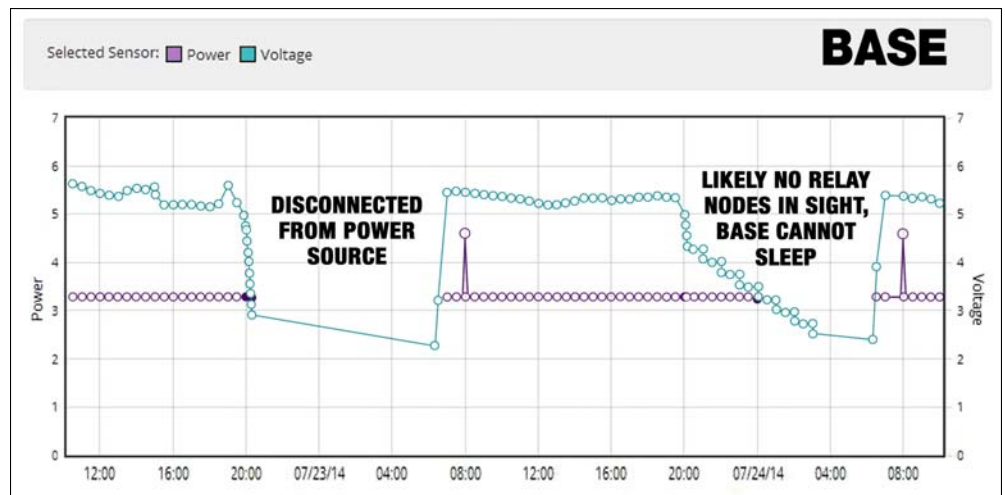
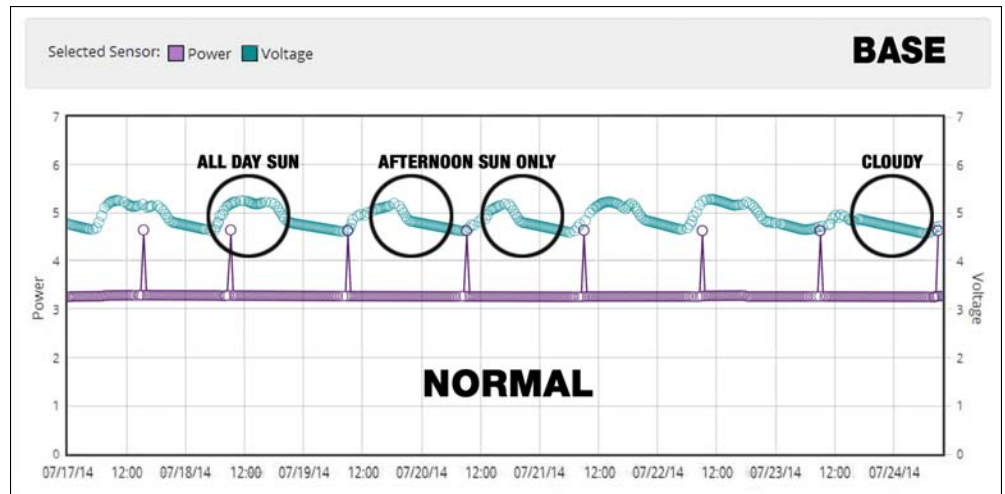
What if I don't want to wait for light flashes to see if the system is reporting?

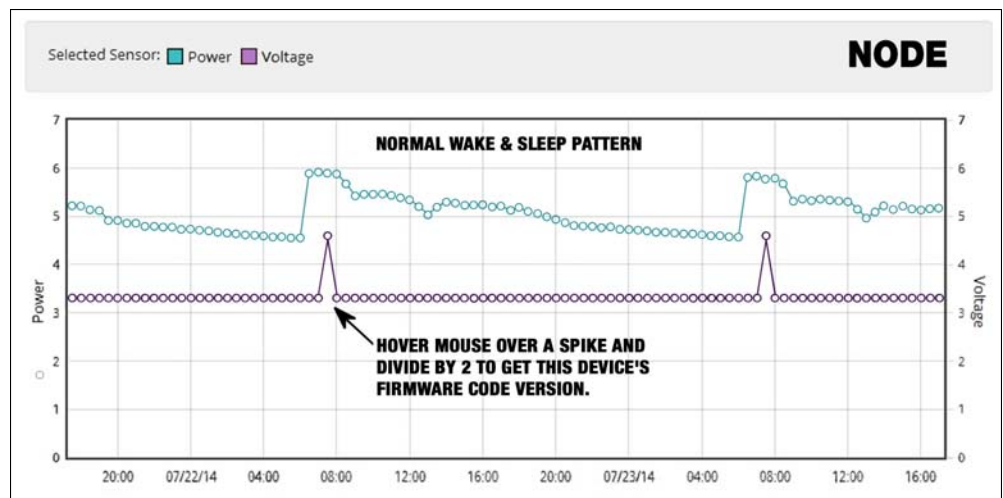
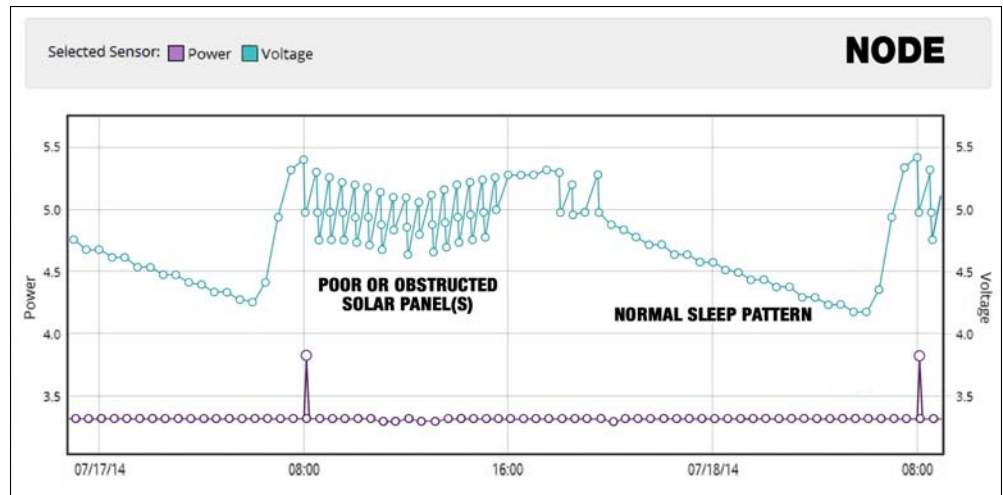
1. If it is a new node on an existing system, installed within specified range and clear line-of-sight, the system will sort itself out without further input.
2. If this is a newly installed mesh, and you have installed nodes within specified range and clear line-of-sight then:
 - a. Confirm that the collection device is active:
 - i. **Cell Gateway** — red light on the inner modem box itself is flashing once every two seconds and its node has been associated with the Base.
 - ii. **Logger** — has been connected to PC, 975L software has found the device and the time at the bottom of the Downloader window is correct.
 - iii. **PC Link** — is connected via its USB cable to PC/SensMitPath, the PC's sleep commands have been disabled, SensMitPath is in the auto-start menu and the PC is connected to the Internet.
Be sure local PC and corporate firewalls 'allow' SensMitPath upload. Configure firewall settings to allow for **SensMitWeb.com** outgoing and incoming.
 - b. Confirm that the Base is connected to its power source.

DIAGNOSTICS

How do I interpret what the diagnostics chart is telling me?

There are a number of things the chart can tell you for each device:





CHANGING MESH COMPONENTS

How do I disassociate a node from its Base so I can use it with another Base?

Obtain a Disassociation Device and connect it to the external temperature sensor wires of a powered-up Relay or End Node and then let go. **The device will not function if your fingers are in contact with any part of it.**

When the node wakes up:

1. The LEDs all turn on for one second, then all start flashing, first for 1/2 second, then 1/4 second, then faster and faster until solidly on – this takes four seconds in total.
2. The LEDs will then turn on solid for four full seconds.
3. The User **MUST** now handle and remove the Disassociation Device **during the four seconds the LEDs are on solid.**
4. The LEDs will blink one time to acknowledge the removal.
5. The node is now disassociated and will reboot (**make sure it is not near an operating Base or it will re-associate with it!**).

If the Disassociation Device is not removed during the four second window the disassociation is ignored and the node will just carry on as usual. The presence of the Disassociation Device will be ignored until removed.

How do I add a new node or Data Collection Device to my system?

Leave a new or unassociated device in the sun or under a desk lamp (non-LED, non-fluorescent) until it starts looking for a Base. (Or power a Cellular Gateway device.) Then bring it within a few feet of the Base (while the Base is awake!) until the red/amber flashing changes to green. It is now associated with the mesh.

How do I remove a node from a Base/mesh?

Attach the Disassociation Device to the wires leading to the external temperature sensor. See prior instruction above. The node is now unassociated and can join a different Base.

How do I change to a new or different data collection device?

Remove the old data collection device from power or from the site – the Base must no longer be able to ‘see’ it! Power-up and associate the new data collection device with the Base. Turn off the Base by sliding its power switch to the ‘OFF’ position inside the housing **and covering its solar panels** until all lights are out! After restarting the Base, look for the lights flashing in the start sequence to confirm it is restarting. The new data collection device can now be used.

Can I use a PC Link to stream data through 975L IRROmesh software?

No. If you try to stream data using the 975L IRROmesh software for more than five hours, the Logger will shut down for 24 hours (red light flashing on and off) and data sent to the Logger during that period will be lost. Other lock-outs exist to prevent streaming IRROmesh data outside the SensMitWeb service.

TROUBLESHOOTING

My Logger runs out of power.

If you must place Logger in a location where there is no or very little daylight, contact your supplier. If using SensMitPath set the ‘I am using a Logger’ checkbox at the top of the SensMitPath screen to YES.

No data is getting to the website from my Cellular Gateway.

If you are not sending data directly to SensMitWeb, contact your corporate IT department for assistance. They may need to create a pathway through a corporate firewall.

I am seeing ‘500’ series error messages in the SensMitPath window.

You likely need to ‘allow’ SensMitPath through your PC’s and/or corporate firewall and any anti-virus programs. Contact your IT department for assistance.

All I get is a map of the world on the SensMitWeb map page.

You must use latitude/longitude decimal degree format to see your mesh properly. Verify accuracy of coordinates.

I am having trouble associating a node or collection device.

Confirm that the Node and Base are no more than two feet (60cm) apart during the association process. If this still does not work restart the Base.

All my Nodes won’t associate with the Base.

The Base will only associate up to 10 Nodes at a time. If you have a large system, associate in batches of 8-10 Nodes at a time. After each Node is associated, remove that batch from the Base (at least 3000’ [915 m]) so the Base can’t ‘hear’ the Nodes. Restart the Base and associate the next batch.

How do I know my code version?

Look for the daily spike in the power chart of the device in question **on the 24 hour chart**. Divide the reading by two to get your code version.

Why is my mesh often asleep during daylight hours?

Likely one or more Relay Nodes are not getting enough power due to shading or equipment problems and are putting the system to sleep. If your PC Link power graph is usually in the ‘high’ state (see charts above under ‘DIAGNOSTICS’) this indicates a system that is usually asleep during the day. If one of the solar panels of a **Relay Node** has failed, is badly shaded, or covered in bird-droppings for instance, that node will go to sleep to conserve power (see the chart above under ‘DIAGNOSTICS’). When one Relay Node goes to sleep, the whole mesh can be put to sleep by the Base because all the nodes that route their data through the ‘must-sleep’ node now also have to sleep. The mesh will still deliver data on a half-hour interval, and new nodes can usually still join, but a mesh that is fully awake for a portion of each day enables top performance. **It is best** to maintain the nodes so that any sleeping that must take place is due to valid situations, such as dimming light at the end of the day.

Why does it take a long time for nodes to re-join the mesh?

If the mesh is sleeping during daylight hours, processes can get backlogged, delaying or even prohibiting the join function. Ensure the mesh is maintained so that it is awake for a period of each sunny day.

What if one or more nodes won’t join, even though they are flashing and near enough to another node?

Be sure it is transmitting to a Relay Node or the Base. Be sure this node has not already been associated with a different Base.

Why does my node suddenly stop reporting?

It is usually due to being light starved. End Nodes can exist in shade and need very little light, but Relay Nodes need to have good light access. Even a small obstruction or shading on a Relay Node has to be avoided.

Why does my node suddenly stop reporting?

In cases where a number of nodes can report through only one pathway and a node at the beginning of that pathway stops reporting, all the downstream nodes will also stop reporting. Once the beginning node is restored, all the other nodes' data will come in.

Birds are roosting on my nodes and droppings are obscuring the solar panels.



Either install a bird deterrent on top of the node (available from your supplier) or install a bird perch higher and facing away from the node.

My Logger is flashing green but no data is being collected.

It is important that the Logger be fully charged and associated **before** attempting to sync it to the computer with 975L software, where its data will be downloaded.

Why am I missing big blocks of data, or why is my data from Jan. 1, 2012?

The mesh's time clock has not been properly synchronized. Ensure the Base is connected to its power supply. Ensure the correct time is displaying on the PC that is running SensMitPath or 975L IRROmesh software.

My Logger is not working.

IRROmesh Logger V2.33 needs to have Base V2.30 or later and SensMitPath V2.34 or later or 975L IRROmesh 2.31 or later.

I've tried everything and nothing is solving my problem.

There is a full system reset function. It is initiated by de-powering the Base or removing it from the site completely for a minimum of 16 hours. Then restore/restart the Base to restart the system.

Optimizing Irrigation... Maximizing Conservation... Worldwide Since 1951

IRROMETER®

1425 Palmyrita Ave., Riverside, CA 92507
951-682-9505 • FAX 951-682-9501
techsupport@irrometer.com
www.IRROMETER.com



(10.15) #749
LITHO U.S.A.