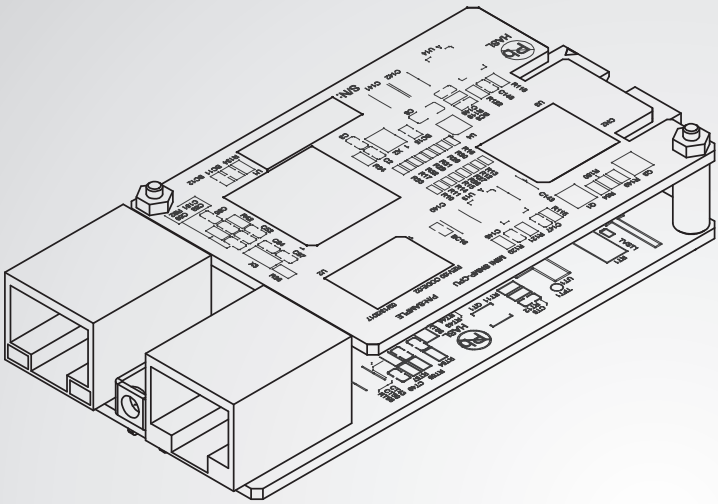


The power behind competitiveness

Delta InsightPower G3 Mini SNMP

User Manual

www.deltapowersolutions.com

Smarter. Greener. Together.

Save This Manual

This manual contains important instructions and warnings that you should follow during the installation, operation, storage and maintenance of this product. Failure to heed these instructions and warnings will void the warranty.

Table of Contents

Chapter 1 : Important Safety Instructions

1-1 Warnings

- The InsightPower G3 Mini SNMP, hereafter referred to as Mini SNMP, is designed to work with a UPS and needs to be installed inside the UPS's SNMP slot. Before installation, ensure that all power sources and critical loads connected to the UPS are disconnected.
- Do not place or use this unit in the presence of flammable substances.
- Do not attempt to disassemble the unit.
- Do not attempt to perform any internal modifications on the unit.
- Do not attempt to fix/ replace internal components. When repair is needed, refer all servicing to the nearest Delta service center or authorized distributor.
- Do not allow any objects or liquids of any kind to penetrate the unit.
- Always follow this User Manual to install and operate this unit.
- Do not play the included CD on a conventional CD player. This could generate loud noise at a level that could result in permanent hearing loss.

1-2 Standard Compliance

- **EN 55032: 2015 ISN, Class B**
- **EN 55032: 2015 Radiated Emission, Class B**
- **EN 55024: 2010 + A1: 2015**

  IEC 61000-4-2: 2008

  IEC 61000-4-3: 2010

  IEC 61000-4-4: 2012

  IEC 61000-4-6: 2013

Chapter 2 : Introduction

2-1 Product Description

The InsightPower G3 Mini SNMP, hereafter referred to as Mini SNMP, is a device that provides an interface between an UPS and a network. It communicates with the UPS, acquires its information and remotely manages the UPS via a network system. The Mini SNMP supports public protocols including SNMP and HTTP. You can effortlessly configure this Mini SNMP using a network system and easily obtain your UPS's status and manage your UPS via the Mini SNMP.

2-2 Features

- **Network UPS management**

  Allows remote management of the UPS from any workstation through Internet or Intranet.

- **Remote UPS monitoring via SNMP & HTTP**

  Allows remote monitoring of the UPS using SNMP NMS, Delta MIB (Management Information Base) or a Web Browser.

- **UPS and system function configuration from any client (password protected)**

  Set the UPS and system parameters through a Web Browser.

- **Event logs & metering data keeping**

  Provides a history data of the UPS's power events, power quality, status and battery conditions.

Other features and supported protocols include:

- User notification via SNMP Traps and E-mail
- Network Time Protocol
- Telnet configuration
- BOOTP/ DHCP

- HTTPS, SSH, SFTP and SNMPv3 security protocols
- Remote event log management through syslog
- IPv4 protocol
- IPv6 protocol

2-3 Package Contents

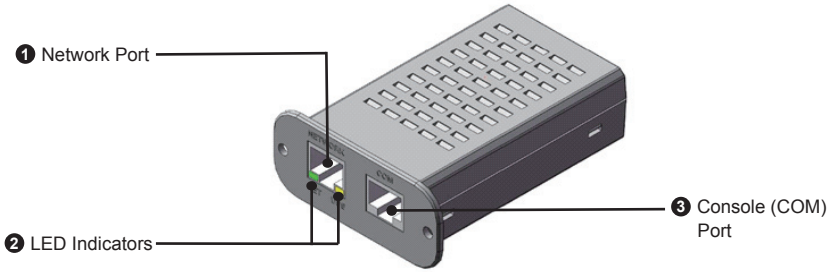
Please carefully verify the Mini SNMP and the included accessories. Contact your dealer if any item is missing or damaged. Should you return the items for any reason, ensure that they are carefully repacked using the original packing materials came with the unit.

No.	Item	Quantity
❶	InsightPower G3 Mini SNMP	1 PC
❷	RJ45 to DB9 cable	1 PC
❸	Software & User's Manual CD	1 PC
❹	Screw	2 PC

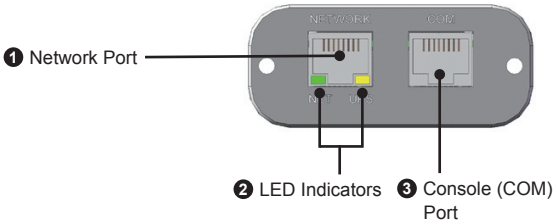
2-4 Interface

The interface includes a NETWORK port, a COM port, LED indicators, shown below. For their functions and indications, please refer to the table below.

Top view:



Front view:



No.	Item	Description
❶	Network Port	Connects to the Ethernet Network.

No.	Item	Description
❷	LED Indicators	When the Mini SNMP is initializing or upgrading firmware, the two LED indicators flash simultaneously to show its status. Refer to the following: • **Rapid simultaneous flashing** (every 50ms) : Initialization or firmware upgrade in progress. • **Slow simultaneous flashing** (every 500ms) : Initialization failed.  **WARNING :** Do **NOT** remove the Mini SNMP or disconnect the UPS's input power during initialization or firmware upgrade! This could result in data loss or damage to the Mini SNMP. The green LED indicator shows the network connection status: • **ON** : Network connection established and the IPv4 address is useable. • **OFF** : Not connected to a network. • **Flashes slowly** (every 500ms) : Faulty IP address. The yellow LED indicator shows the linking status between the Mini SNMP and the UPS: • **Flashes rapidly** (every 50ms): UPS linked. • **Flashes slowly** (every 500ms): UPS not linked.
❸	Console (COM) Port	1. Connects to a workstation with the provided RJ45 to DB9 cable to configure the system. 2. Connects to an EnviroProbe (optional) to monitor its connected environment monitoring devices.

NOTE

For EnviroProbe information, please refer to the Installation Guide included in the package of the EnviroProbe.

Chapter 3 : Installation

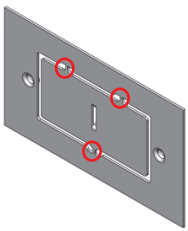
NOTE

Before installation, please disconnect all power sources and critical loads connected to the UPS. Otherwise, the Mini SNMP might have shorting issues to cause UPS shutdown or damage.

- Please follow the procedures below to install the Mini SNMP into your UPS's SNMP slot.

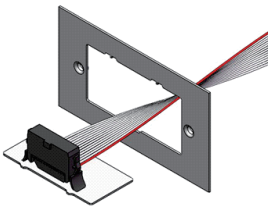
Step 1 Use tool to cut off three connections on the Mini slot ***(see Figure 3-a)***.

Figure 3-a



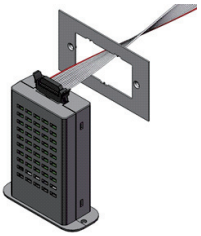
Step 2 Pull the flat wire out and use tool to cut the straps that are tied to the flat wire ***(see Figure 3-b).***

Figure 3-b



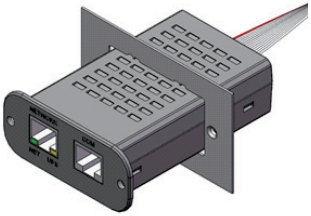
Step 3 Take out the Mini SNMP and connect to the flat wire ***(see Figure 3-c)***.

Figure 3-c



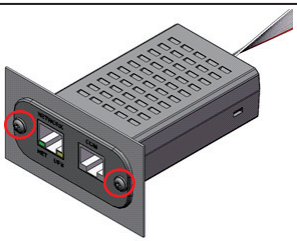
Step 4 Install the Mini SNMP through the Mini slot to the UPS ***(see Figure 3-d)***.

Figure 3-d



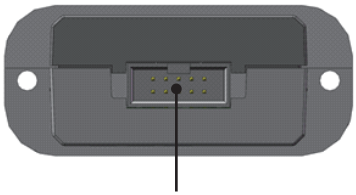
Step 5 Use the two screws that get from Mini SNMP package to fix the Mini SNMP on the UPS ***(see Figure 3-e)***.

Figure 3-e



NOTE

The backside view of the Mini SNMP is shown as follows.



❶ 10-pin Connector

Pin	Definition	Pin	Definition
1	GND	2	+12V
3	RS232_TXD	4	RS232_RXD
5	Reserved	6	Reserved
7	Reserved	8	Reserved
9	n/c	10	n/c

Chapter 4 : System Configurations

There are different ways you can configure your Mini SNMP. If a network connection is available at your location, the following methods can be used:

- **Web-based interface** : The InsightPower G3 Mini SNMP Web offers comprehensive system management and monitoring. Please refer to ***Chapter 5: InsightPower G3 Mini SNMP Web***.
- **EzSetting** : Use the provided program EzSetting to quickly set up your Mini SNMP. Please refer to ***4-2 Configuring with EzSetting***.
- **Telnet mode** : Configure your Mini SNMP in text mode. Please refer to ***4-3 Configuring via Telnet***.

The above-mentioned methods require network connection. If not available, you can use direct COM port connection to set up your Mini SNMP. Please see ***4-4 Configuring through COM Port***.

NOTE

1. To ensure system security, it is highly recommended that you change your account and password after the first login.
2. If you have multiple Mini SNMP units installed in your network, we highly suggest that you change the Mini SNMP's default Host Name to avoid conflicts. Also, it is recommended that you disable BOOTP/ DHCP and manually assign a valid static IP address to the Mini SNMP.

4-1 Configuring via InsightPower G3 Mini SNMP Web

To set up the Mini SNMP via your web browser, please follow the instructions below:

Step 1 Use a CAT5e network cable to connect the Mini SNMP's Network port to the network. Launch your web browser. In the address bar, enter the Mini SNMP's default Host Name **InsightPower**, or default IP address **192.168.1.100**. If you are unable to connect, please see ***Chapter 7 : Troubleshooting Q6.***

NOTE

If you have previously changed the Mini SNMP's Host Name or IP address, connect with the new settings.

Step 2 Log in as Administrator (default account/ password: admin/ password, case sensitive).

Step 3 Specify your preferred display language (default: English) from the dropdown menu on the top right of the page. The Mini SNMP remembers your language preference. In the following instructions, English is chosen as the display language.

Step 4 Click **System** → **User** → **Local**. Manage your login accounts and passwords under the "User" subhead. The access permission for the account types is shown as follows:

1) **Administrator :** Allowed to modify all settings.
2) **Device Manager :** Allowed to modify device-related settings.
3) **Read Only User :** Only allowed to view settings without the permission to make changes.

You can manually specify whether users are allowed to log in from other LANs. If you wish to block login attempts from external connections, select **Only in This LAN**. Otherwise, select **Allow Any**.

Step 5 Click **System** → **Ethernet** to set Host Name, IP address, Subnet Mask and Gateway IP for the Mini SNMP.

Step 6 Click **System** → **Service** → **Time** to manually set time and date for the system, or enable automatic time synchronization between the Mini SNMP and the time servers.

NOTE

To completely set up your Mini SNMP, please refer to ***Chapter 5: InsightPower G3 Mini SNMP Web***.

4-2 Configuring with EzSetting

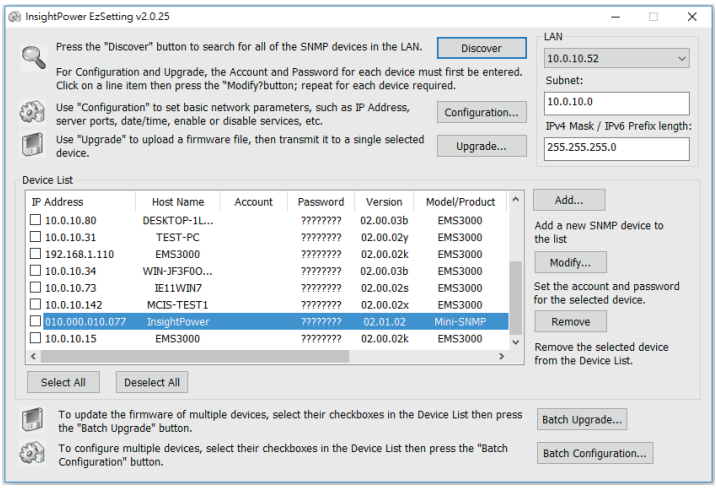
Included in the provided CD, the EzSetting (compatible with Windows 2000/ 2003/ 2008/ XP/ Vista/ 7/ 10) allows you to easily configure your Mini SNMP and upgrade firmware on your SNMP devices. Follow the instructions below:

Step 1 Use the CAT5e cable to connect the Mini SNMP's Network port to the network.

Step 2 Make sure the workstation and the Mini SNMP are on the same LAN.

Step 3 Insert the provided CD in the CD-ROM drive. From the root directory, launch EzSetting.

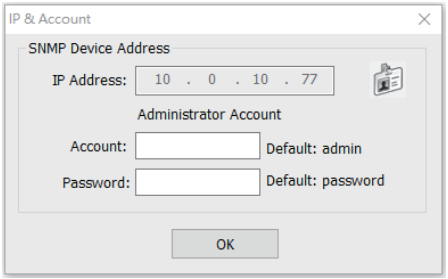
Step 4 Click **Discover** to search all available SNMP devices on the LAN. A list of devices will be shown.



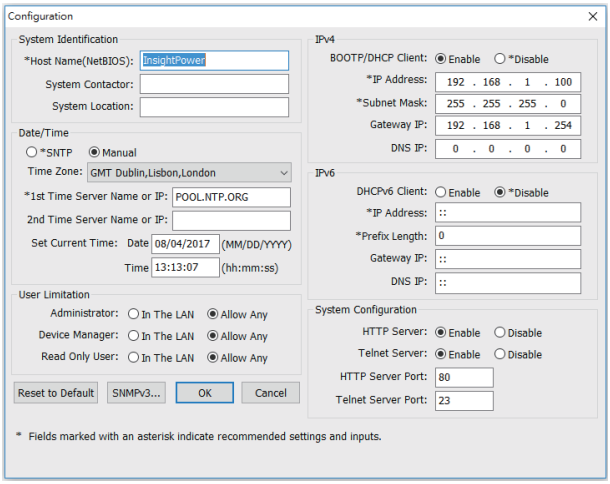
NOTE

1. If you want to search SNMP devices in a different domain, change the **Subnet** and **IPv4/ IPv6 Prefix Length** and click **Discover**.
2. If the Mini SNMP can not be found, check UDP port 3456 on the workstation you are using. Make sure it is open.

Step 5 Select the Mini SNMP that you want to modify from the Device List. Click **Modify** and enter Administrator's account and password (default: admin/ password, case sensitive).



Step 6 Click **Configuration** to configure network settings.



NOTE

Refer to ***Chapter 5 : InsightPower G3 Mini SNMP Web*** for complete configurations.

4-3 Configuring via Telnet

Step 1 Use a CAT5e network cable to connect the Mini SNMP's Network port to the network.

Step 2 Connect the workstation (Windows or Linux) to the LAN that the Mini SNMP is connected to.

Step 3 For Windows, launch DOS prompt mode (**Start** → **Run** → key in **cmd** and press **Enter**). For Linux, launch Shell.

Step 4 Enter the following command: **telnet InsightPower** or **telnet IP address** to initiate telnet connection with the Mini SNMP.

Step 5 When connection is established, enter Administrator's account and password (default: admin/ password, case sensitive). The Main Menu will appear on the screen. Please refer to ***4-5 Configuring via Text Mode*** for more information.

NOTE

1. The Mini SNMP terminates idle connections after 60 seconds.
2. Refer to ***Chapter 5: InsightPower G3 Mini SNMP Web*** for complete configurations.

4-4 Configuring through COM Port

If a network connection is not available at your location, you can still set up the Mini SNMP via COM port connection. Please follow the instructions below:

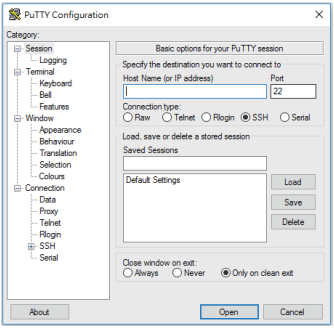
NOTE

If you are running a non-Windows system, refer to your system's user manual for Telnet clients.

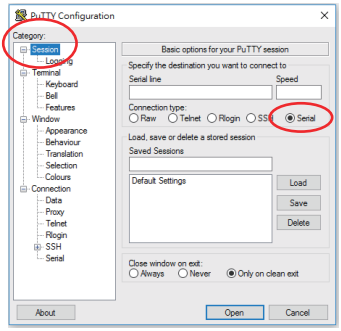
Step 1 Use the provided RJ45 to DB9 cable to connect the Mini SNMP's COM port to the workstations' COM port.

Step 2 Download the free Telnet/ SSH client program named **PuTTY** from ***http://www.putty.org*** .

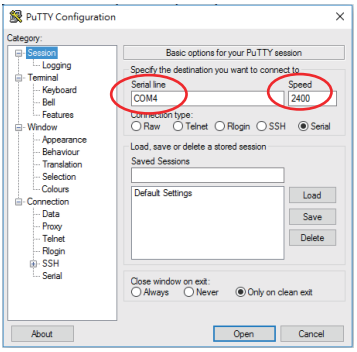
Step 3 Lunch PuTTY as shown below .



Step 4 Select **Category → Session** and **Connection type → Serial**.



Step 5 In the **Serial line** bar, enter your workstation's COM port number, which is connected to the Mini SNMP's COM port. In the **Speed** bar enter the baud rate to 2400.

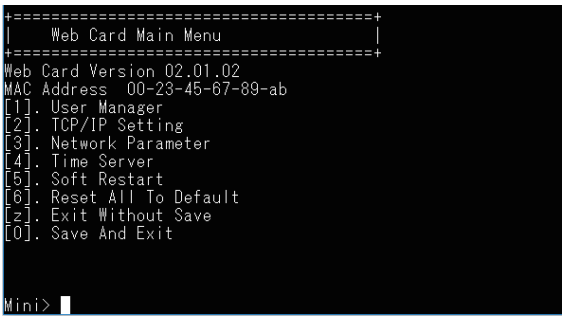


Step 6 Click **Open** to continue, and PuTTY will automatically connect to the Mini SNMP. When connection is established, log in with Administrator's account/ password (default: admin/ password, case sensitive). Once you are logged in, the Main Menu appears on the screen. Please refer to ***4-5 Configuring via Text Mode*** for more information.

4-5 Configuring via Text Mode

You can configure the Mini SNMP via text mode by using Telnet/ SSH clients such as HyperTerminal and PuTTY. In this section, you can find descriptions and default settings.

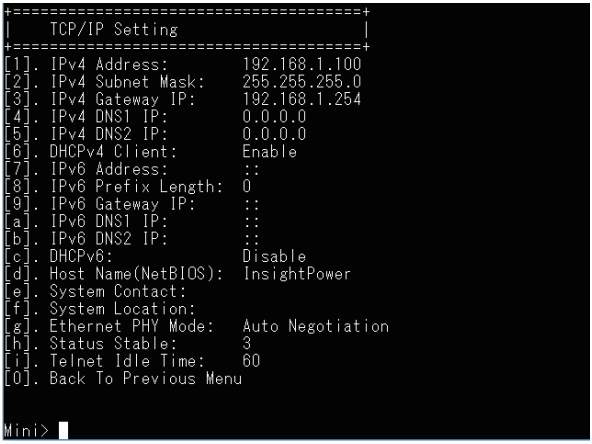
Main Menu



User Manager

No.	Item	Description	Default
[1]	Administrator Account	The default account/ password for the Administrator (case sensitive).	admin
[2]	Administrator Password		password
[3]	Administrator Limitation	Restrict Administrator login area.	LAN
[4]	Device Manager Account	The default account/ password (case sensitive) for the Device Manager. This account is only permitted to change device-related settings.	device
[5]	Device Manager Password		password
[6]	Device Manager Limitation	Restrict Device Manager login area.	LAN
[7]	Read Only User Account	The default account/ password (case sensitive) for Read Only User. This account is only allowed to view settings without the permission to make changes.	user
[8]	Read Only User Password		password
[9]	Read Only User Limitation	Restrict Read Only User login area.	Any

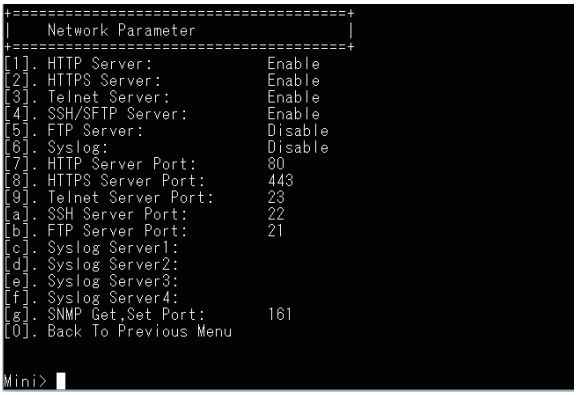
TCP/IP Setting



No.	Item	Description	Default
[1]	IPv4 Address	The IPv4 address.	192.168.001.100
[2]	IPv4 Subnet Mask	The IPv4 subnet mask setting.	255.255.255.000
[3]	IPv4 Gateway IP	The IPv4 gateway's IP address.	192.168.001.254
[4]	IPv4 DNS1 IP	IPv4 Domain Name Server1 IP.	0.0.0.0
[5]	IPv4 DNS2 IP	IPv4 Domain Name Server2 IP.	0.0.0.0
[6]	DHCPv4 Client	Enable/ Disable DHCPv4 protocol.	Enable
[7]	IPv6 Address	The IPv6 address.	
[8]	IPv6 Prefix Length	The IPv6 prefix length.	
[9]	IPv6 Gateway IP	The IPv6 gateway's IP address.	
[a]	IPv6 DNS1 IP	IPv6 Domain Name Server1 IP.	
[b]	IPv6 DNS2 IP	IPv6 Domain Name Server2 IP.	
[c]	DHCPv6	Enable/ Disable DHCPv6 protocol.	Disable
[d]	Host Name (NetBIOS)	The Host Name for the Mini SNMP.	InsightPower

No.	Item	Description	Default
[e]	System Contact	The System Contact information.	
[f]	System Location	The System Location information.	
[g]	Ethernet PHY Mode	Switch the speed (10/ 100 Mbps) and duplex, or auto negotiation.	Auto Negotiation
[h]	Status Stable	Status change confirmation check time.	3
[i]	Telnet Idle Time	Telnet connection time-out setting.	60 Seconds

Network Parameter

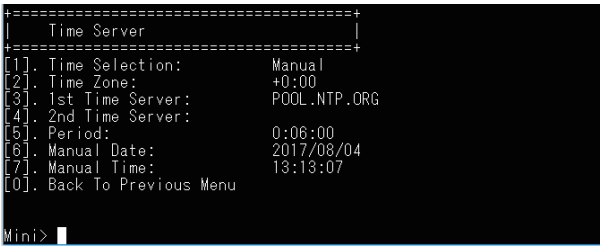


No.	Item	Description	Default
[1]	HTTP Server	Enable/ Disable HTTP protocol.	Enable
[2]	HTTPS Server	Enable/ Disable HTTPS protocol.	Enable
[3]	Telnet Server	Enable/ Disable Telnet protocol.	Enable
[4]	SSH/ SFTP Server	Enable/ Disable SSH/ SFTP protocol.	Enable
[5]	FTP Server	Enable/ Disable FTP protocol.	Disable
[6]	Syslog	Enable/ Disable remote Syslog.	Disable
[7]	HTTP Server Port	HTTP port.	80

No.	Item	Description	Default
[8]	HTTPS Server Port	HTTPS port.	443
[9]	Telnet Server Port	Telnet port.	23
[a]	SSH Server Port	SSH port.	22
[b]	FTP Server Port	FTP port.	21
[c]	Syslog Server 1	The Host Name of remote Syslog Server 1.	
[d]	Syslog Server 2	The Host Name of remote Syslog Server 2.	
[e]	Syslog Server 3	The Host Name of remote Syslog Server 3.	
[f]	Syslog Server 4	The Host Name of remote Syslog Server 4.	
[g]	SNMP Get, Set Port	The SNMP port.	161

Time Server

You can manually adjust time and date for the Mini SNMP or set up automatic time server synchronization. The Mini SNMP and Windows support SNTP (Simple Network Time Protocol). If you need to start up a time server service on your workstation, please refer to ***Chapter 7: Troubleshooting Q1***.



No.	Item	Description	Default
[1]	Time Selection	SNTP or manual.	SNTP
[2]	Time Zone	Adjust your time zone.	+0 hr
[3]	1st Time Server	The first time server for SNTP.	POOL.NTP.ORG
[4]	2nd Time Server	The second time server for SNTP.	
[5]	Period	Auto update period of time server	0:06:00
[6]	Manual Date	Set the date manually.	01/01/2000
[7]	Manual Time	Set the time manually.	00:00:00

Soft Restart

Reset the Mini SNMP. This will not affect the operation of the UPS.

Reset All To Default

Reset to manufacture default.

Exit Without Saving

Exit and ignore changes.

Save and Exit

Preserve your changes and exit.

Chapter 5 : InsightPower G3 Mini SNMP Web

To configure the Mini SNMP via the InsightPower G3 Mini SNMP Web, please follow the steps below:

Step 1 Make sure that your Mini SNMP is connected to the LAN. Use a CAT5e network cable to connect the Mini SNMP's Network port to the network.

Step 2 Launch your web browser. In the address bar, enter the Mini SNMP's Host Name **http:/InsightPower/** or IP address. For encrypted connection, enter **https://InsightPower/** or **https://192.168.1.100/**.

Step 3 When connection is established, the login page appears. Enter your account and password (default: admin/ password).

NOTE

1. If you have previously changed the Mini SNMP's Host Name or IP address, please connect with new settings.
2. If the login page is accessible, but you are unable to log in with correct account and password, additional network configuration may be needed. The cause could be the IP subnet of the computer you are logging in to is different from the Mini SNMP's. To solve this issue, please refer to ***Chapter 7: Troubleshooting Q3***.

The **InsightPower G3 Mini SNMP Web** includes the information of **Monitor, Device** and **System**. Please refer to the following sections ***5-1~5-3*** for more information.

5-1 Monitor

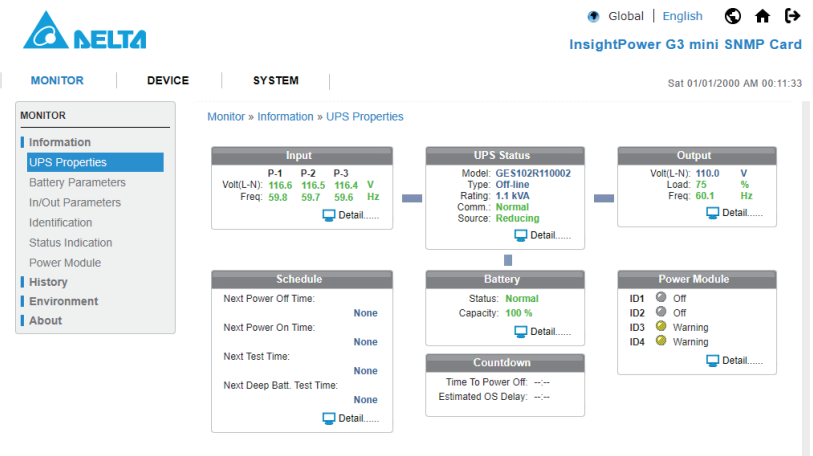
Under the Monitor category, there are Information, History, Environment and About these four items.

5-1-1 Information

This includes the information of UPS Properties, Battery Parameters, In/ Out Parameters, Identification, Status Indication, and Power Module. Please note that since different UPSs provide different information, the UPS that you have may not display the same web page.

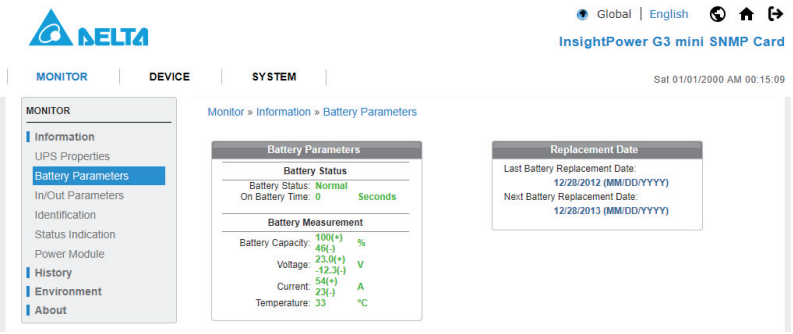
UPS Properties

Go to **Monitor → Information → UPS Properties** to see a status overview of the UPS's major parameters. The values will be updated automatically.



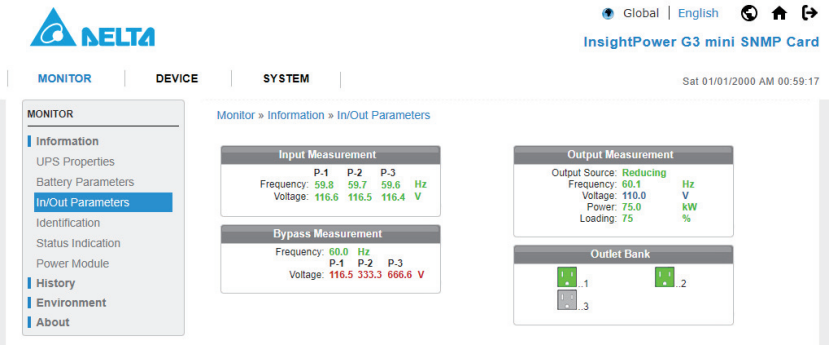
Battery Parameters

Go to **Monitor → Information → Battery Parameters** to view the information of Battery Status, Battery Measurement, Battery Replacement Date.



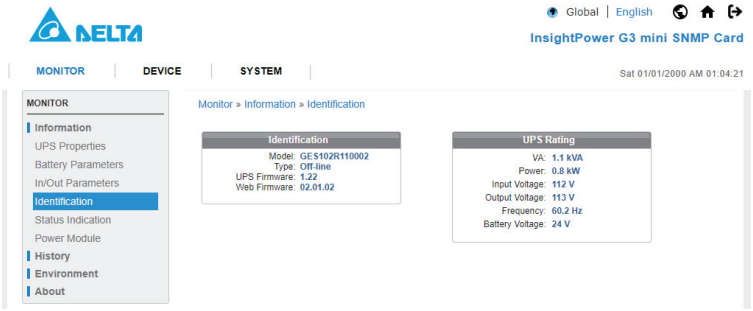
In/ Out Parameters

Go to **Monitor → Information → In/ Out Parameters** to view the information of Input Measurement, Bypass Measurement, Output Measurement and Outlet Bank.



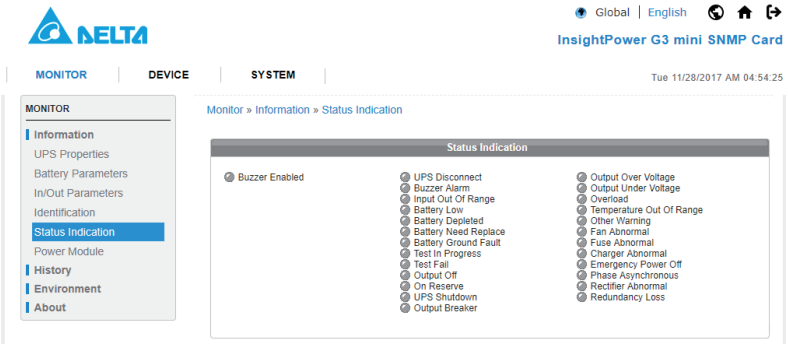
Identification

Go to **Monitor → Information → Identification** to view the information of Identification and UPS Rating.



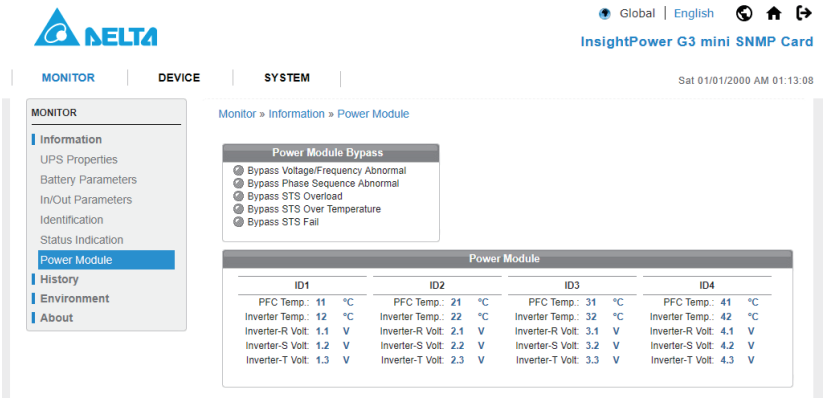
Status Indication

Go to **Monitor → Information → Status Indication** to view the UPS's event list. When an event occurs, its according beacon lights.



Power Module

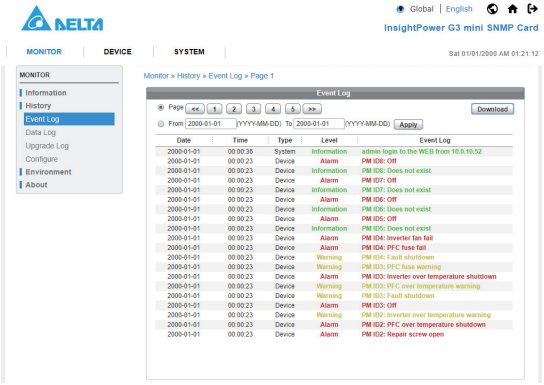
Go to **Monitor → Information → Power Module** to view the information of every Power Module and the status of Power Module Bypass.



5-1-2 History

Event Log

Go to **Monitor → History → Event Log →** Page 1/ 2/ 3/ 4... to see events that occur. The existing ones are overwritten when the maximum number of entries (1,0000) is reached. You can also download the entire event log archive (EventLog-year-month-day.csv) recorded during an assigned period of time on your computer.



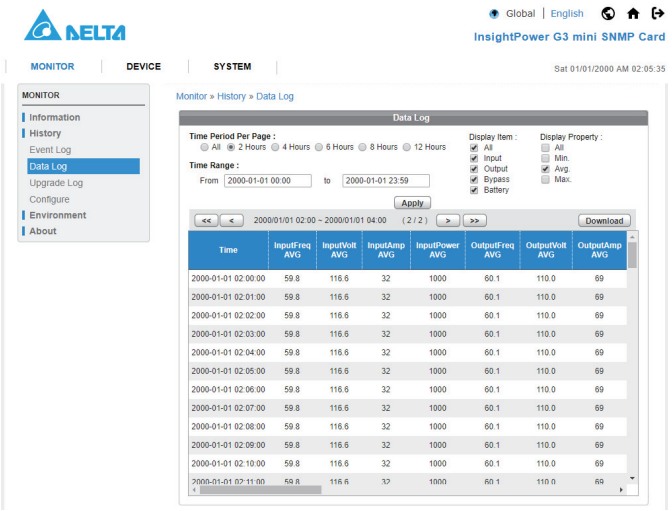
- **Date:** The date when the event occurred.
- **Time:** The time when the event occurred.

- **Type:** The type of the event occurred.
- **Level:** The Event Level of the event occurred.
- **Event Log:** The description of the event that occurred.
- **Download Event Log from UPS**

  The Mini SNMP will monitor the status of UPS automatically and display the event log according to its event level. All of these event logs will also be saved in the Mini SNMP. Once user click **Download**, the entire event log archive will be saved in user's computer.

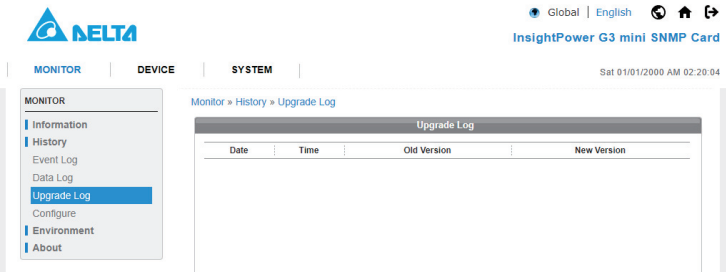
Data Log

Go to **Monitor** → **History** → **Data Log** to see all saved device data. You can also download the data archive (DataLog-year-month-day.csv) recorded during an assigned period of time on your computer.



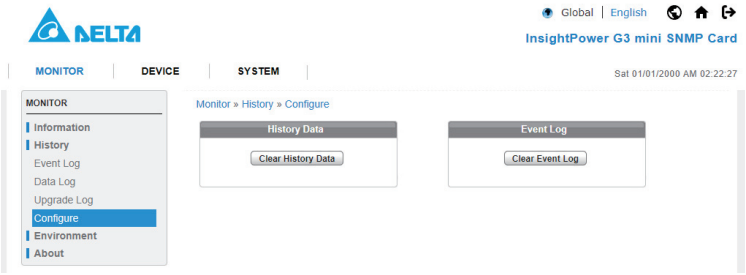
Upgrade Log

Go to **Monitor** → **History** → **Upgrade Log** to see the installation time of the Mini SNMP's all firmware version.



Configure

Go to **Monitor → History → Configure** to clear the history data and event log.



- **Clear History Data:** Empty the history data log only.
- **Clear Event Log:** Empty the event log only.

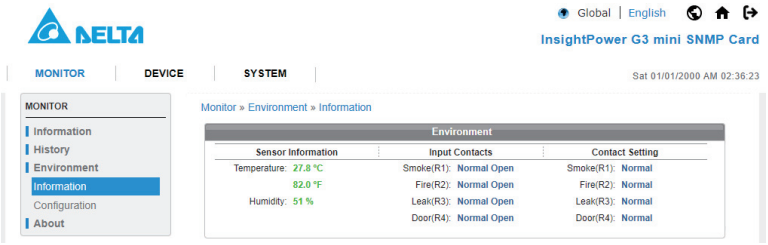
5-1-3 Environment

Only when an EnviroProbe is used can the Environment page show up.

The Environment page includes Information and Configuration these two items. You can monitor and set up your EnviroProbe via this Environment page. For EnviroProbe information, please refer to the Installation Guide included in the package of the EnviroProbe.

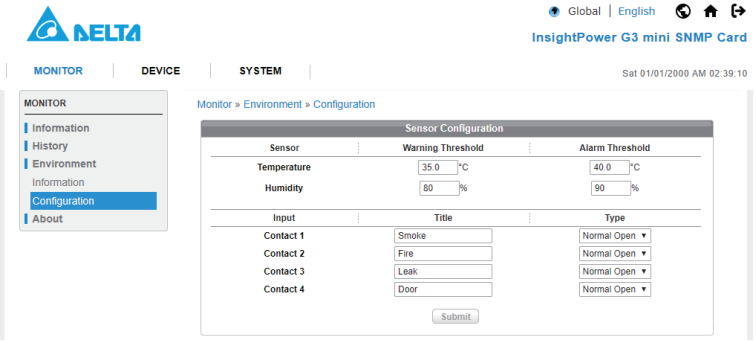
Information

Go to **Monitor → Environment → Information** to see your EnviroProbe's Sensor Information, Input Contacts and Contact Setting.



Configuration

Go to **Monitor → Environment → Configuration** to configure your EnviroProbe's Warning Threshold, Alarm Threshold, Title and Type. Please see the table below for detailed information.

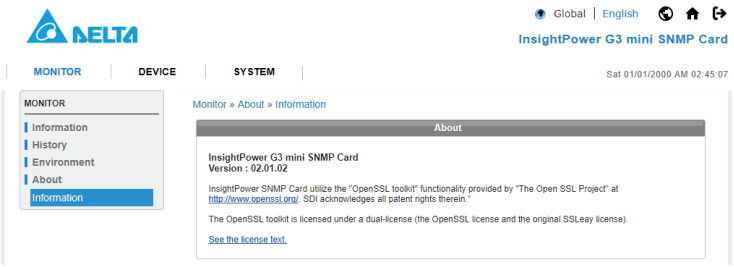


5-1-4 About

Under About category, there is only one item called Information. You can obtain your Mini SNMP's other information via this channel.

Information

Go to **Monitor → About → Information** to see the version of your InsightPower G3 Mini SNMP and other information about OpenSSL toolkit and licenses.



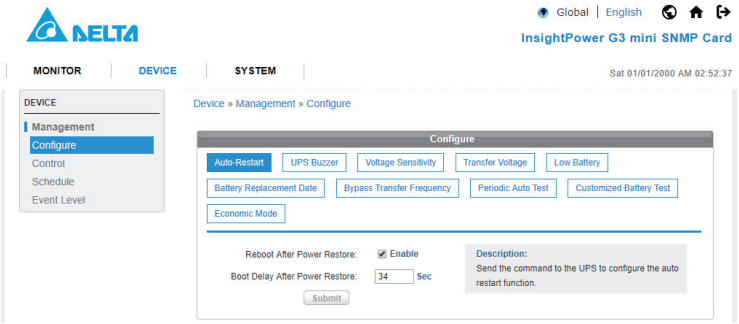
5-2 Device

5-2-1 Management

Since different UPSs have different functions, your UPS may not support the same configurations or control items stated below.

Configure

Go to **Device → Management → Configure** to configure the UPS. The configuration values are saved in the UPS or in the Mini SNMP and these values change UPS operation. The configuration items include the following. Please note that different UPSs may support different configuration options.



- **Auto Restart**

  After you click **Submit** to confirm your auto restart setup, the Mini SNMP will send the command to the UPS to enable auto restart.

- **UPS Buzzer**

  After you click **Submit** to confirm your buzzer setup, the Mini SNMP will send the command to the UPS to enable buzzer.

- **Voltage Sensitivity**

  After you set up your voltage sensitivity (there are Normal, Reduced, and Low selections) and click **Submit**, the Mini SNMP will send the command to the UPS to enable the UPS's voltage sensitivity function.

- **Transfer Voltage**

  After you click **Submit** to confirm your transfer voltage setup, the Mini SNMP will send the command to the UPS to enable the relevant functions.

- **Low Battery**

  This configuration saves the setup values in the Mini SNMP and compares with the values received from the UPS. If the received battery level is lower than the assigned one, the Mini SNMP will trigger a low-battery alarm.

- **Battery Replacement Date**

  After you set up battery replacement dates, the Mini SNMP will send the command to the UPS and save the information in the UPS.

- **Bypass Transfer Frequency**

  After you set a tolerance of bypass transfer frequency and confirm your set-up, the Mini SNMP will send the command to the UPS. If the UPS transfers to bypass mode and the bypass frequency is out of the tolerance, output will be turned off and critical loads will be protected.

- **Periodic Auto Test**

  This configuration is used to set up battery test time. After you confirm your setup, the Mini SNMP will send the command to the UPS and save the setup in the UPS. When the test time is due, the UPS will automatically perform the battery test.

- **Customized Battery Test**

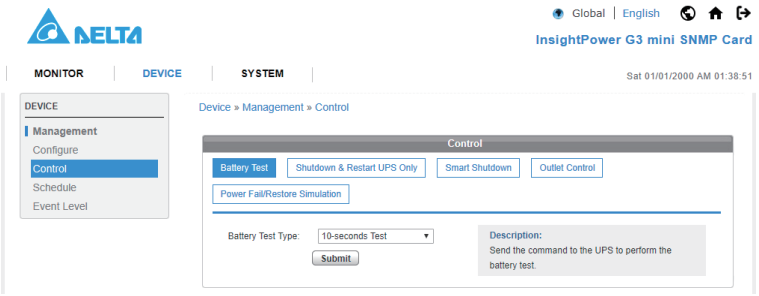
  This configuration is used to set up the test parameters and store them in the UPS EEPROM, then select the **Customized Battery Test** command from the **Control → Battery Test** web page to perform the customized battery test.

- **Economic Mode**

  After you click **Submit** to confirm your economic mode setup, the Mini SNMP will send a command to the UPS to enable/ disable the relevant functions.

Control

Go to **Device → Management → Control** to configure relevant control commands. After you click **Submit**, the Mini SNMP will send the according commands to the UPS to enable relevant functions. The control items include the following.



- **Battery Test**

  After you select the battery test type and click **Submit**, the Mini SNMP will send the command to the UPS to enable the battery test accordingly.

- **Shutdown & Restart UPS Only**

  After you confirm your setup, the Mini SNMP will send the command to the UPS to shut down or/ and restart the UPS.

  If you want to shutdown the UPS, please check the UPS Shutdown Delay box and key in delay time.

  If you want to restart the UPS, please check the UPS Restart Delay box and key in delay time.

  If you want to shutdown and restart the UPS, please check both of the boxes and key in according delay time.

- **Smart Shutdown**

  The Smart Shutdown configuration is used to safely shutdown all of the connected computers and the UPS. First of all, you should estimate the longest OS Shutdown Delay time for your operating systems that have been installed shutdown software and connected to the Mini SNMP. The Mini SNMP will delay the assigned OS Shutdown Delay time and wait for all operating systems' shutdown. After that, the Mini SNMP will send the assigned UPS shutdown-delay command to the UPS and turn off the UPS.

- **Outlet Control**

  Press the **Switch Bank** button to control the UPS output relay (on or off).

- **Power Fail/ Restore Simulation**

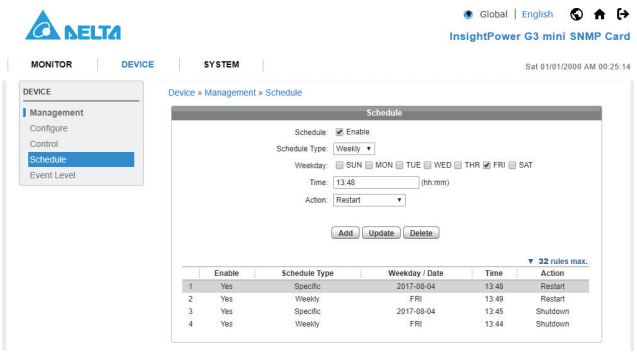
  Click **Power Fail Test** or **Power Restore Test** button to let the Mini SNMP simulate UPS power failure or power restore event. This function allows you to test all of the connected software and verify whether they work properly or not. Please note that the simulation won't influence UPS operation, the UPS remains in its original operation mode and won't transfer to battery mode.

Schedule

Go to **Device → Management → Schedule** to arrange a weekly schedule or specific schedule for the UPS.

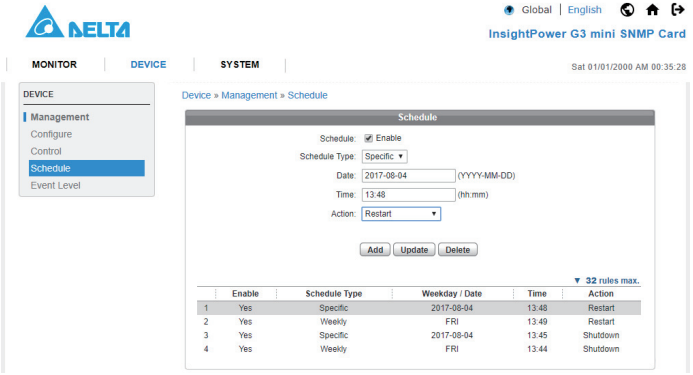
- **Weekly**

  You can select **Stop Action/ Shutdown/ Restart/ 10 seconds test/ Deep battery test**, and set up what day and what time you want the action to be executed every week.



- **Specific**

  You can select **Stop Action/ Shutdown/ Restart/ 10 seconds test/ Deep battery test**, and set up a specific date (**YYYY-MM-DD**) and time (**hh:mm**) to execute this action. Once the specific schedule has been set, the actions of weekly schedule will be ignored.

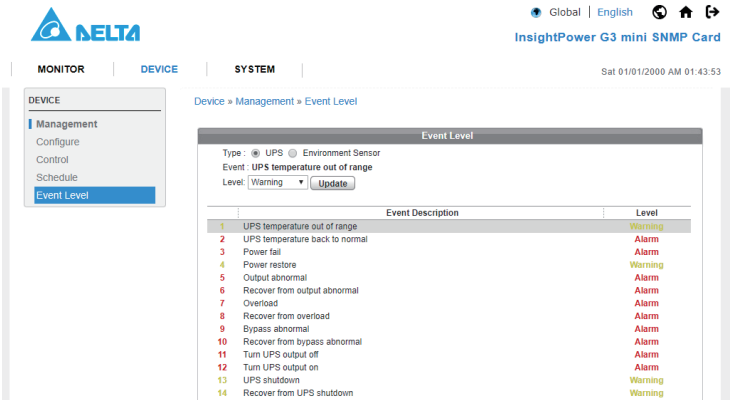


Event Level

Go to **Device** → **Management** → **Event Level** to set up an event level for the UPS or Environment Sensor. If you want to receive an event notification, please refer to ***5-3-3 Notification - SNMP Trap*** and ***5-3-3 Notification - Mail Server***.

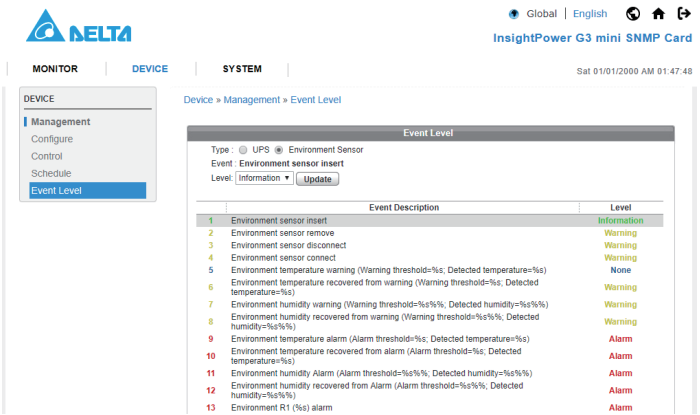
- **UPS**

  You can select an event level (**None, Information, Warning** and **Alarm**), and once the UPS event occurs, the event will be sent according to this level setting.



- **Environment Sensor**

  You can select an event level (**None, Information, Warning** and **Alarm**), and once the Environment Sensor event occurs, the event will be sent according to this level setting.



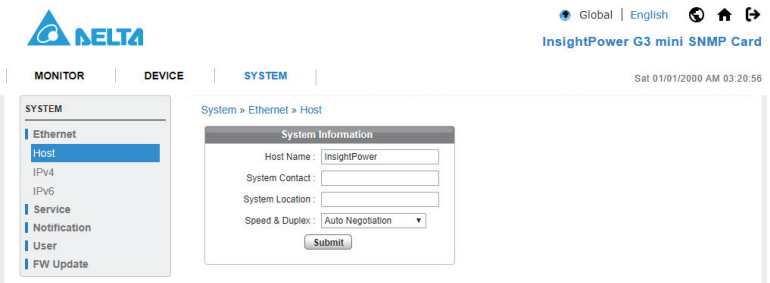
5-3 System

Only Administrator can see the System page. Under the System category, there are Ethernet, Service, Notification, User and FW Update these five items. You can use them to change or look up the system's relevant settings or records. Please see below for more descriptions.

5-3-1 Ethernet

The Ethernet page includes Host, IPv4 and IPv6 these three selections.

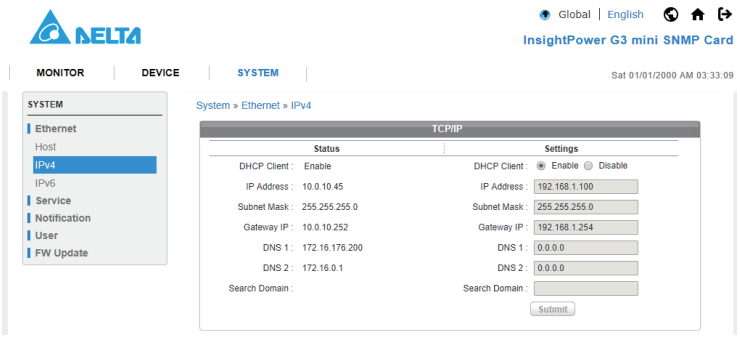
Host



- **Host Name:** The Mini SNMP Host Name on the network.
- **System Contact:** System contact information.
- **System Location:** System Location information.
- **Speed & Duplex:** Select the speed and duplex mode of Mini SNMP.

IPv4

This allows Administrator to configure the IPv4 parameters for the Mini SNMP.



- **DHCP Client**

  Enable/ Disable DHCP. If enabled, DHCP server automatically assigns an IP address to the Mini SNMP.

- **IP Address**

  The IP address for your Mini SNMP.

- **Subnet Mask**

  The subnet mask for your network.

- **Gateway IP**

  The IP address for network gateway.

- **DNS 1**

  The IP address for Domain Name Server 1.

- **DNS 2**

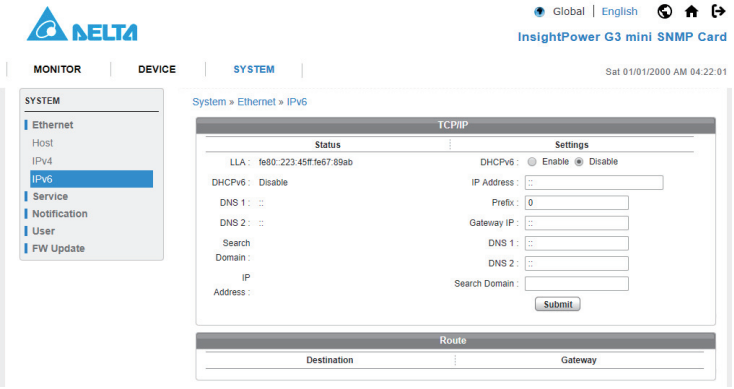
  The IP address for Domain Name Server 2.

- **Search Domain**

  If the Host Name you provided cannot be found, the system appends the search domain to your Host Name.

IPv6

This allows Administrator to configure the IPv6 parameters for the Mini SNMP.



- **DHCPv6**

  Enable/ Disable DHCPv6 client. If enabled, DHCPv6 server automatically assigns an IPv6 address to the Mini SNMP.

- **IP Address**

  The IPv6 address for your Mini SNMP.

- **Prefix**

  The prefix length for the IPv6 address.

- **Gateway IP**

  The IPv6 address for network gateway.

- **DNS 1**

  The IPv6 address for Domain Name Server 1.

- **DNS 2**

  The IPv6 address for Domain Name Server 2.

- **Search Domain**

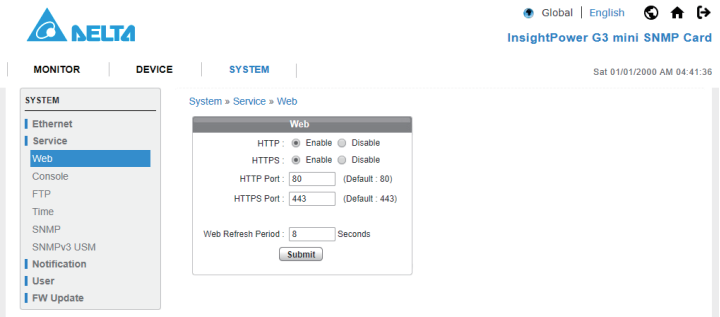
  If the Host Name you provided cannot be found, the system appends the search domain to your Host Name.

5-3-2 Service

The Service page includes Web, Console, FTP, Time, SNMP and SNMPv3 USM these six selections.

Web

This allows Administrator to enable/ disable HTTP and HTTPS communication protocols.



- **HTTP**

  Enable/ Disable HTTP connection.

- **HTTPS**

  Enable/ Disable HTTPS connection.

- **HTTP Port**

  Assign a HTTP port number (default: 80).

- **HTTPS Port**

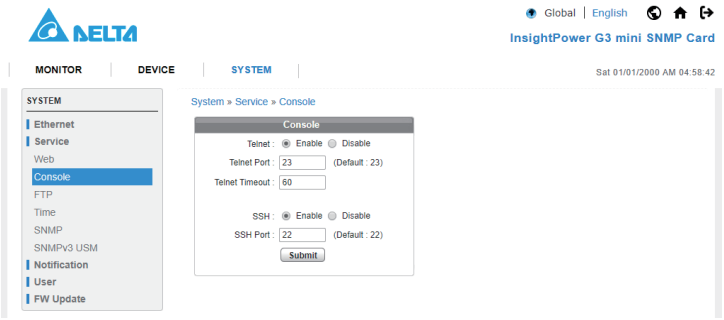
  Assign a HTTPS port number (default: 443).

- **Web Refresh Period**

  Web refresh interval.

Console

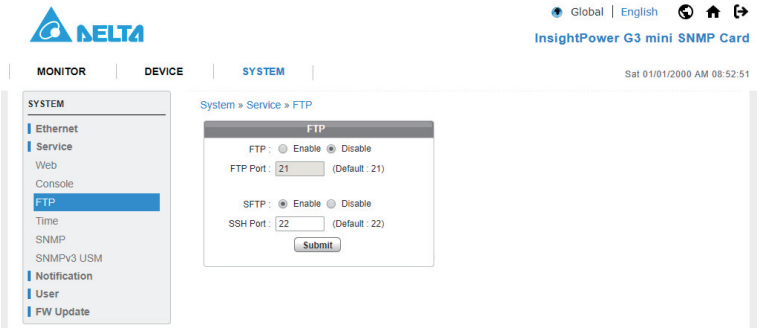
This item allows the Administrator to enable/ disable Telnet and SSH communication protocols.



- **Telnet**
  Enable/ Disable Telnet connection.
- **Telnet Port**
  Assign a Telnet port number (default: 23).
- **Telnet Timeout**
  The timeout of Telnet connection.
- **SSH**
  Enable/ Disable SSH connection.
- **SSH Port**
  Assign a SSH port number (default: 22).

FTP

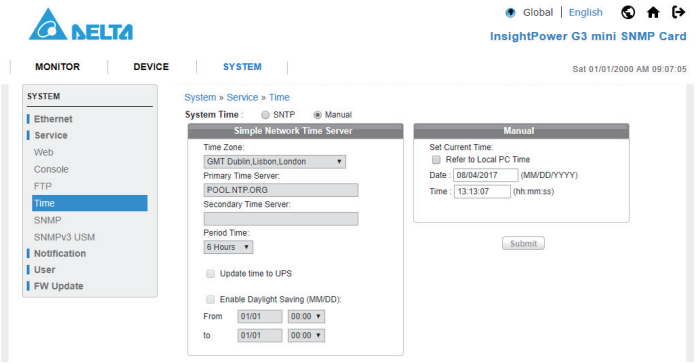
This allows Administrator to enable/ disable FTP communication protocol.



- **FTP**
  Enable/ Disable FTP connection.
- **FTP Port**
  Assign a FTP port number (default: 21).
- **SFTP**
  Enable/ Disable SFTP connection.
- **SFTP Port**
  Assign a SFTP port number (default: 22).

Time

You can manually set the time and date, or allow automatic time synchronization with SNTP servers. Please note that if the SNTP server is not responsive, the event and data log will not register even when SNTP is enabled.



- **Simple Network Time Server**

  1) **Time Zone:** From the dropdown menu, select the time zone for the location where the Mini SNMP is located.

  2) **Primary/ Secondary Time Server:** Two time servers can be added. Every **Period Time**, the Mini SNMP synchronizes with the first responding server.

  3) **Period Time:** The time interval that the Mini SNMP synchronizes with the SNTP server.

4) **Update time to UPS:** Determine whether the time also synchronizes with the UPS.

5) **Enable Daylight Saving:** Check to enable daylight saving time. During this period, the Mini SNMP adjusts time forward one hour.

- **Manual**

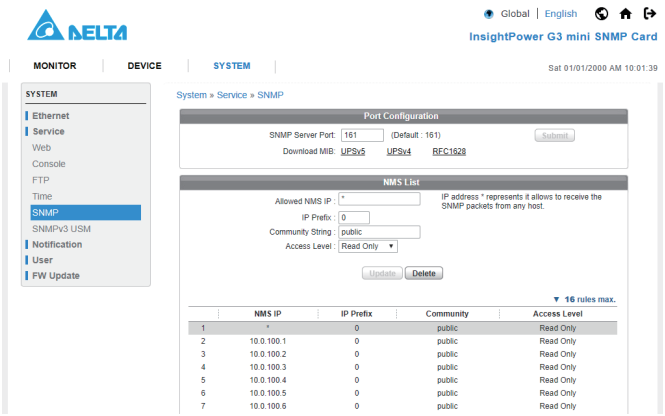
  If a time server is not accessible, you can still manually set time and date. Please note that every time you restart the Mini SNMP's network module, time and date is reinstated to previous assigned settings.

SNMP

The Mini SNMP supports SNMP protocol, which is commonly used to monitor network devices for conditions that call for administrative attention. To prevent unauthorized access, you can specify the NMS IP addresses that are allowed to access, their community strings and access levels. The maximum number of IP entries is 16.

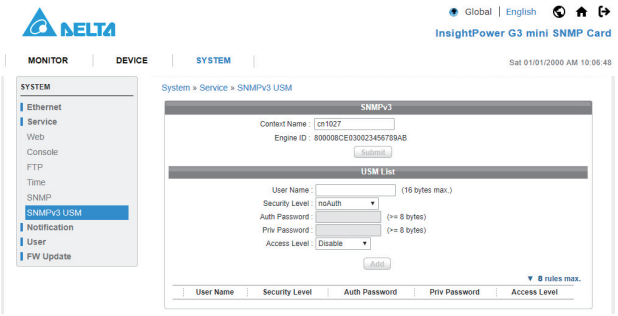
NOTE

If IP address * is enlisted, the NMS IP access restriction is ignored. The Mini SNMP checks the community string to identify the access level and permission according to your setting.



SNMPv3 USM

SNMPv3 offers features such as the encryption of packets and authentication to improve security. The SNMPv3 USM (User Session Management) allows you to assign sixteen User Names whose access is granted via SNMPv3 protocol. You can also define their respective Security Levels, Auth Passwords, Priv Passwords and Access Levels.

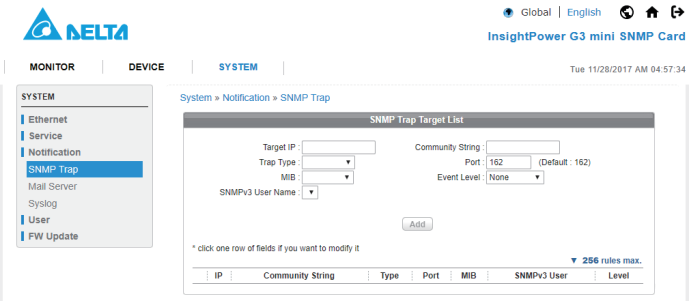


5-3-3 Notification

The Notification page includes SNMP Trap, Mail Server and Syslog these three selections.

SNMP Trap

SNMP Trap alerts users to event occurrences in your monitored environment. To enable SNMP Trap, you must add Target IP addresses to the Target IP list. Specify the Community String, Trap Type, MIB, SNMPv3 User Name, Port, Event Level, and click **Add**. If you wish to update or delete a Target IP address, specify the IP address in the Target IP list, and click **Update** or **Delete**. The maximum number of Target IP addresses is 256.



NOTE

The Mini SNMP supports SNMPv1, SNMPv2c and SNMPv3 traps to satisfy most of customer's environments. If you select the SNMPv3 trap, please specify an SNMPv3 USM User Name.
You can use Event Level to determine what event notifications should be sent to which Target IP Address. Three event levels are listed as follows:

- **None:** No event notifications are sent to the target address.
- **Information:** All event notifications are sent to the target address.
- **Warning:** Both Warning and Alarm event notifications are sent to the target address.
- **Alarm:** Only Alarm event notifications are sent to the target address.

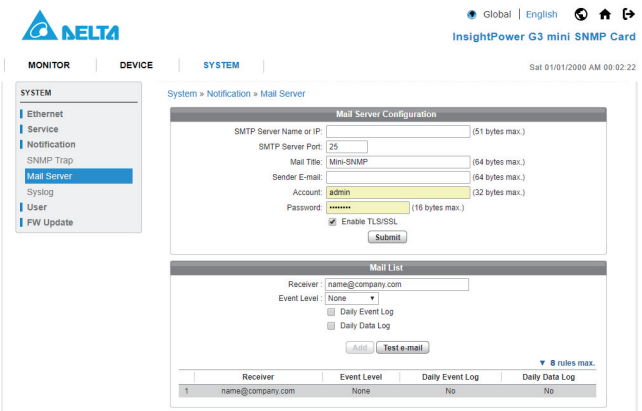
You can go to **Device → Management → Event Level** to change the event level.

Mail Server

You can set up an SMTP Server and specify a list of E-mail recipients who will receive notifications when events occur. The maximum number of recipients is 8.

NOTE

If a DNS server is not available in the network, you need to manually assign an SMTP server address to enable the E-mail notification system.



- **SMTP Server Name or IP**

  If a Host Name is entered, a **DNS IP** should be added. Please see ***5-3-1 Ethernet***.

- **SMTP Server Port**

  The mail server's port number.

- **Mail Title**

  The subject of the notification E-mail.

- **Sender E-mail**

  The sender's E-mail address.

- **Account**

  The mail server login account.

- **Password**

  The mail server login password.

- **Receiver**

  The recipient's E-mail addresses.

- **Event Level**

  Select the Event Level when triggered, an E-mail notification is sent to the corresponding recipient.

  1) **Information:** All event notifications are sent to the target address.
  2) **Warning:** Warning and Alarm event notifications are sent to the target address.
  3) **Alarm:** Only Alarm event notifications are sent to the target address.

- **Daily Event Log**

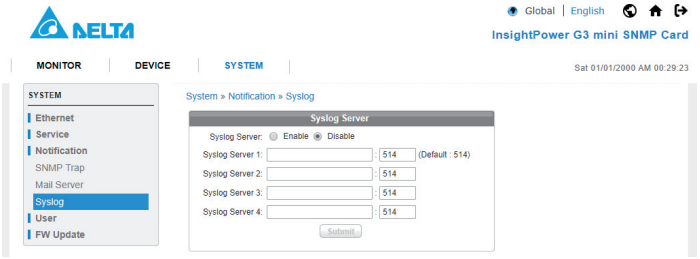
  If this is selected, all event logs in the same day will be packaged as an attachment and sent to the specified receiver at 0:00 AM next morning.

- **Daily Data Log**

  If this is selected, all data logs in the same day will be packaged as an attachment and sent to the specified receiver at 0:00 AM next morning.

Syslog

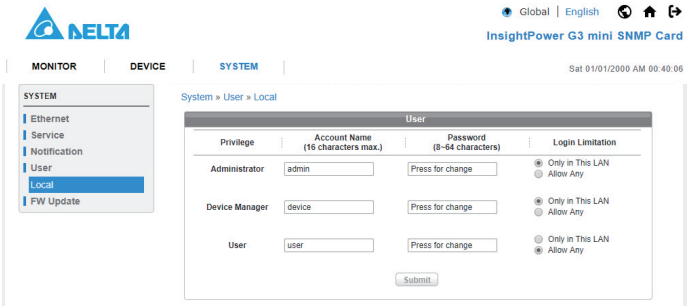
Syslog is used to store the event log on remote Syslog servers. This will not affect the local event log. After enabling the Syslog, please set up a server IP address. You can set up at maximum four Syslog servers at a time.



5-3-4 User

Local

This page allows user to manage the Accout Name, Password and Login Limitation for local authentication.



- **Administrator**

  Allowed to modify all settings.

- **Device Manager**

  Allowed to modify device related settings.

- **Read Only User**

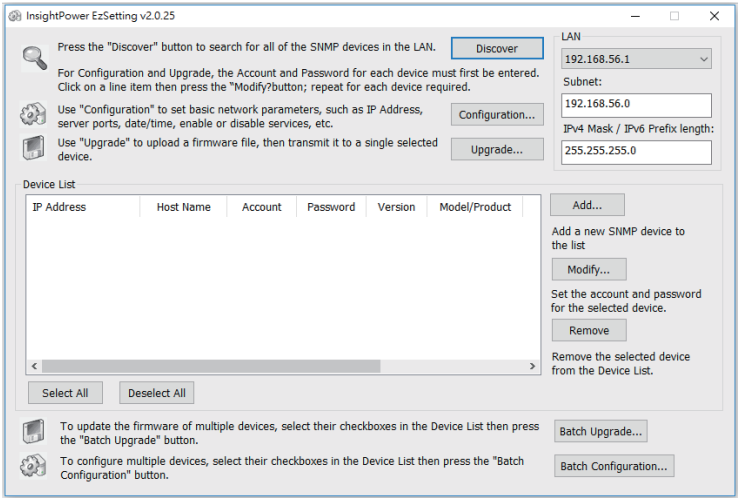
  Only allowed to view settings without the permission to make chages.

5-3-5 FW Upgrade

The Upgrade page shows the Mini SNMP's current firmware version. The Administrator can use this page to update the Mini SNMP's firmware. Click **Choose File**, select the file you with to upload, and click **Upload**. The upgrade process should take about one minute.

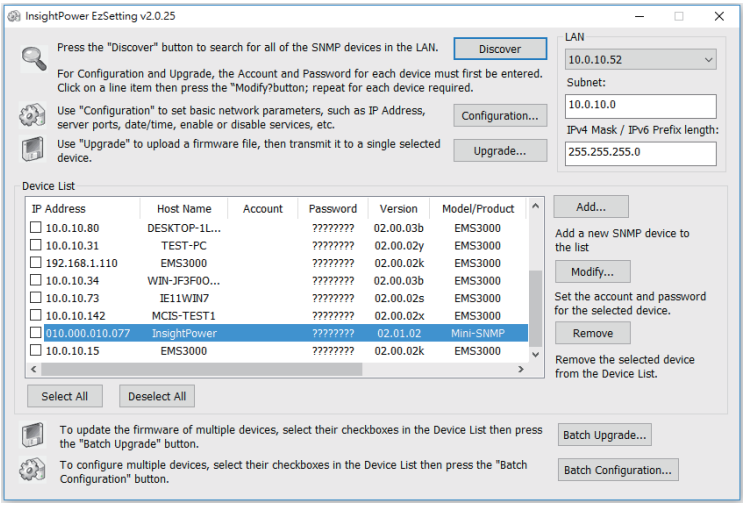
Chapter 6 : SNMP Device Firmware Upgrade

With the provided program EzSetting, you can effortlessly perform a firmware upgrade on your SNMP devices via LAN. Please refer to the following instructions.

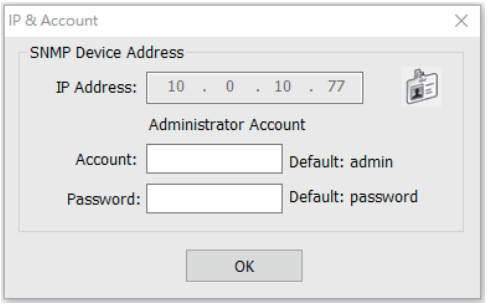


Step 1 The subnet mask allows you to define the device discovery range in the specified subnets. Make sure the SNMP device you wish to upgrade is in the subnet that is specified. If it is not, please modify the subnet and subnet mask.

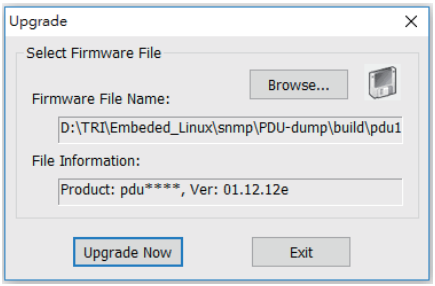
Step 2 Click **Discover**. A list of SNMP devices is shown.



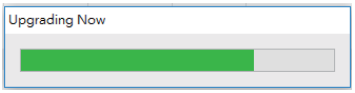
Step 3 Select a device from the Device List, click **Modify**, and enter Administrator account and password.



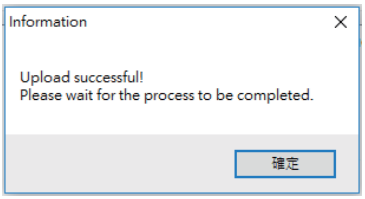
Step 4 Click **Upgrade**. The upgrade dialog box pops up. Click **Browse** to select a valid firmware binary file. Verify the firmware version shown under File Information, and then click **Upgrade Now** to continue.



Step 5 The upgrade process should take about 20 seconds.



Step 6 When the upgrade is completed, the following dialog box appears. It takes about 1 minute for the device to reboot.



Chapter 7 : Troubleshooting

Q1. How to set up an SNTP server on my workstation for the Mini SNMP to synchronize?

To enable SNTP services in Windows, go to **Start → Control Panel → Add/ Remove Programs → Add/ Remove Windows Components → Networking Services →** check **Simple TCP/ IP Services → OK**. To enable time synchronization, you need to set SNTP time server addresses in **Time Server**. Please refer to ***Chapter 4: System Configurations***.

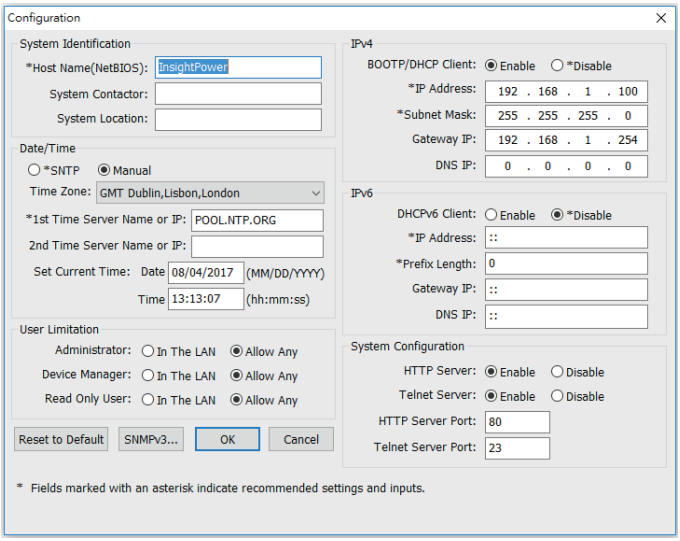
Q2. How to make sure the linking between the Mini SNMP and the UPS is established?

If the linking between the Mini SNMP and the UPS is correctly established, the yellow LED indicator should flash rapidly. If not, confirm that the device ID setting on the Mini SNMP and the UPS is consistent.

```
C:\>ping 172.16.186.230

Pinging 172.16.186.230 with 32 bytes of data:
Reply from 172.16.186.230: bytes=32 time=2ms TTL=64
Reply from 172.16.186.230: bytes=32 time=2ms TTL=64
Reply from 172.16.186.230: bytes=32 time=2ms TTL=64
Reply from 172.16.186.230: bytes=32 time=4ms TTL=64

Ping statistics for 172.16.186.230:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 4ms, Average = 2ms


C:\>
```

Q3. I can access the InsightPower G3 SNMP Web, but I cannot log in.

Please check the IP addresses of the Mini SNMP and the workstation on which you are trying to log in. By default, they must be within the same LAN so you can connect via the web interface. You can enable external connections to solve this issue. To do this, launch EzSetting and change User Limitation to **Allow Any**, as shown below.



Q4. Unable to connect to the Mini SNMP via its Host Name?

If you just assign a new static IP address to the Mini SNMP, you may need to refresh the NetBIOS table so that it corresponds with the new setting. Although Windows updates its NetBIOS table periodically, you can still manually force it to refresh by entering the following command **nbtstat –R** in DOS prompt mode. After that, you can now connect to the Mini SNMP by its Host Name. Please also ensure that the Host Name assigned to the Mini SNMP does not exceed 16 bytes.

Q5. How to check my workstation's IP address?

For Windows, please enter **ipconfig /all** in DOS prompt mode. For UNIX, please enter **ifconfig** in shell. You should be able to check your IP and MAC (Physical Address) now.

```
Physical Address. . . . . . . . . : 00-23-4D-A2-3A-2C
DHCP Enabled. . . . . . . . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::ad55:5b9b:74c6:e5fc%12(Preferred)
IPv4 Address. . . . . . . . . . . : 172.16.186.97(Preferred)
Subnet Mask . . . . . . . . . . . : 255.255.254.0

C:\>
```

Q6. Unable to ping the Mini SNMP from my workstation?

If the Mini SNMP is non-responsive, check the following:

1) If the green LED indicator on the Mini SNMP is OFF, check if the network cable is correctly connected from the Mini SNMP to the router or hub.

2) If the green LED indicator is ON, the current IP address could be unreachable. Manually assign a valid IP address to the Mini SNMP.

3) If the green LED indicator flashes and (1) your network configuration includes a DHCP server, make sure the DHCP service is working properly; (2) Otherwise, make sure the assigned IP is not already taken on the network. Please note that if the current configuration is not useable, the Mini SNMP will reset to default IP settings (IPv4 address: 192.168.1.100/ net mask: 255.255.255.0/ gateway: 192.168.1.254).

4) If the problem persists, use a network cable to cross link your Mini SNMP and the workstation. Ping the Mini SNMP's default or static IP address, according to your configurations. If a ping response is successfully received, indicating that the Mini SNMP is working properly, check your network equipment. If not, contact your local dealer or service personnel for assistance.

Q7. Unable to perform a SNMP Get command?

Refer to ***5-3-2 Service*** to check SNMP settings. Make sure that the workstation's IP address is added to the NMS IP list with Read or Read/ Write access. The community string on the workstation and the Mini SNMP must match.

Q8. Unable to perform a SNMP Set command?

Refer to ***5-3-2 Service*** to check SNMP settings. Make sure that the workstation's IP address is added to the NMS IP list with Read/ Write permission. The community string on the PC and the Mini SNMP must match.

Q9. Unable to receive SNMP trap?

Refer to ***5-3-3 Notification*** to check SNMP Trap settings. Make sure that the workstation's IP address is added to the Target IP list.

Q10. Forgot Administrator's account and password?

You can reset Administrator's account and password via text mode. Refer to ***4-4 Configuring through COM Port*** to establish a COM port connection with the Mini SNMP. When the login information is prompted, key in **rstadmin** within 60 seconds and press **enter**. The Administrator account and password are now reset to default (admin/ password).

Q11. How to test SNMPv3 in Linux?

Before you can access the SNMP OID (Object Identifier) via SNMPv3 protocol, the SNMPv3 USM table must be organized. Please refer to ***5-2-2 Notification – SNMPv3 USM*** for more information.

To test SNMPv3 in Linux, launch shell and key in the following command:

```
snmpwalk -v 3 -u <user> -l authPriv -A <pass-
word> -X <password> -n <context name> -t 3
<ip> 1.3.6.1.2.1.1.1.0
```

-v: 1 for SNMPv1, 3 for SNMPv3.

-l: Follow the security levels. They are: noAuthNoPriv, authNoPriv and authPriv.

-u: The user name which is assigned from SNMPv3 USM table.

-A: The Auth Password which is assigned from SNMPv3 USM table.

-X: The Priv Password which is assigned from SNMPv3 USM table.

-n: The Context Name which is assigned from SNMPv3 USM table.

-t: Timeout in seconds.

<ip>: The IP address of the Mini SNMP.

<oid>: The next available SNMP OID (for example: 1.3.6.1.2.1.1.1.0). Please refer to the RFC1213 MIB.

Appendix A : Specifications

Model Name	InsightPower G3 Mini SNMP
Power Input	12 Vdc
Power Consumption	2 Watt (Max.)
Network Connection	RJ-45 jack connector (10/ 100M)
Physical	
Size (W x D X H)	87 mm x 70 mm x 30 mm
Weight	75 g
Environmental	
Operating Temperature	0 ~ 60℃
Storage Temperature	-40 ~ 125℃
Operating Humidity	0 ~ 90 % (Non-condensing)

NOTE

* Refer to the rating label for the safety rating.
* All specifications are subject to change without prior notice.

Appendix B : Warranty

Seller warrants this product, if used in accordance with all applicable instructions, to be free from original defects in material and workmanship within the warranty period. If the product has any failure problem within the warranty period, Seller will repair or replace the product at its sole discretion according to the failure situation.

This warranty does not apply to normal wear or to damage resulting from improper installation, operation, usage, maintenance or irresistible force (i.e. war, fire, natural disaster, etc.), and this warranty also expressly excludes all incidental and consequential damages.

Maintenance service for a fee is provided for any damage out of the warranty period. If any maintenance is required, please directly contact the supplier or Seller.

No. 353413900910
Version : V 9.10
UM Date : 2017_12_01

WARNING : The individual user should take care to determine prior to use whether the environment and the load characteristic are suitable, adequate or safe for the installation and the usage of this product. The User Manual must be carefully followed. Seller makes no representation or warranty as to the suitability or fitness of this product for any specific application.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