iStars

SNMP Web Card

User Manual

Ver 2.6

CONTENTS

CHAPTER1 OVERVIEW

iStars is new generation network monitoring product. Not only could monitor UPS stand-alone, iStars also could real-time network monitor and management of UPS. Integrated monitoring can be achieved by coordinating corresponding PC software. And it is quite convenient for User to take network management for UPS.

iStars provides very simple installation program. It only needs to install the iSearch software attached by this product in PC, after search or set the IP address of iStars by it; it can land the page of iStars by browser with obtained IP to take further set.

iStars can remotely monitor the working condition and environment condition of UPS by internet. Administrative personals can take remote monitoring of UPS by landing the internet to check real-time status of UPS and know the working voltage, current, frequency, temperature and humidity of UPS as well as know whether there is some fault for UPS.

iStars also can provide various operations for different operating systems. It can, according to detailed setting, set the power off and test of UPS at some certain time; set authority of login user, username, and IP, etc.

Its main functions are:

1. Set all functions by browser;
2. Monitor real-time status of UPS by browser;
3. Support protocols such as TCP/IP, FTP, NTP, HTTP, SMTP and SNMP, etc.;
4. Provide IP search and updating tools (iSearch);
5. Send the daily report by Email;
6. Send related information to administrative personals by Email of there is any fault for UPS;
7. Add GPRS message module by request of user (message module shall be purchased additionally).

CHAPTER2 INTRODUCTION

Section1 Description of Hardware

Figure2.1 Side View (External Card)

Figure2.1 Side View (Internal Card)

Figure2.3 Side View (External Card)

NET port	Ethernet 10M/100M LAN port
GPRS port	To GPRS module
Y/G/R Led	Light signal, LED three-color indicator light
UPS port	Serial port connect with UPS
DC9V port	To DC9V adapter

Explanation of LED Light signal		
Light color	definition	Explanation
Red	Fault	Light flash if UPS communication is break or there is other system fault
Green	Power supply	Light on when system operate normally
Yellow	State of communication	Light flash if communication is normal. Light on means sending data. Light off means receiving data.

Section2 Disk Information

Attached information of disk

(1) iStars Operation Instruction

(2) iSearch IP search software

(3) iSmartMate Shutdown software

(4) iSmartView Centralized management software

CHAPTER3 UPS WEB MANAGEMENT

Section1 Introduction

After finishing hardware connection and setting of iStars and network, according to the IP address of iStars obtained by iSearch, use the browser of any PC, input IP address of iStars, and then it can enter into the monitoring page of iStars to remotely monitor the UPS or set related information.

⚠ *Make sure that the IP address is under the same net work segment with the host IP.*

(1) Start the browser.

(2) Input IP address of iStars (for example: 192.168.6.6).

(3) Input the username and password, click and confirm to enter into the monitoring page. An initial account with default username: admin and passwords: admin is set. User can add or delete corresponding user account and authority in setting pages.

Figure3.1 Webpage Login Interface of iStars

Section2 UPS Web Interface

After entering into iStars webpage, current login username and its authority, system functional menu and status will be displayed in home page.

There are four items for major functional options of system menu:

2.1 UPS Information and Status

2.2 Setting and Control

2.3 Log Query

2.4 Assistant Function

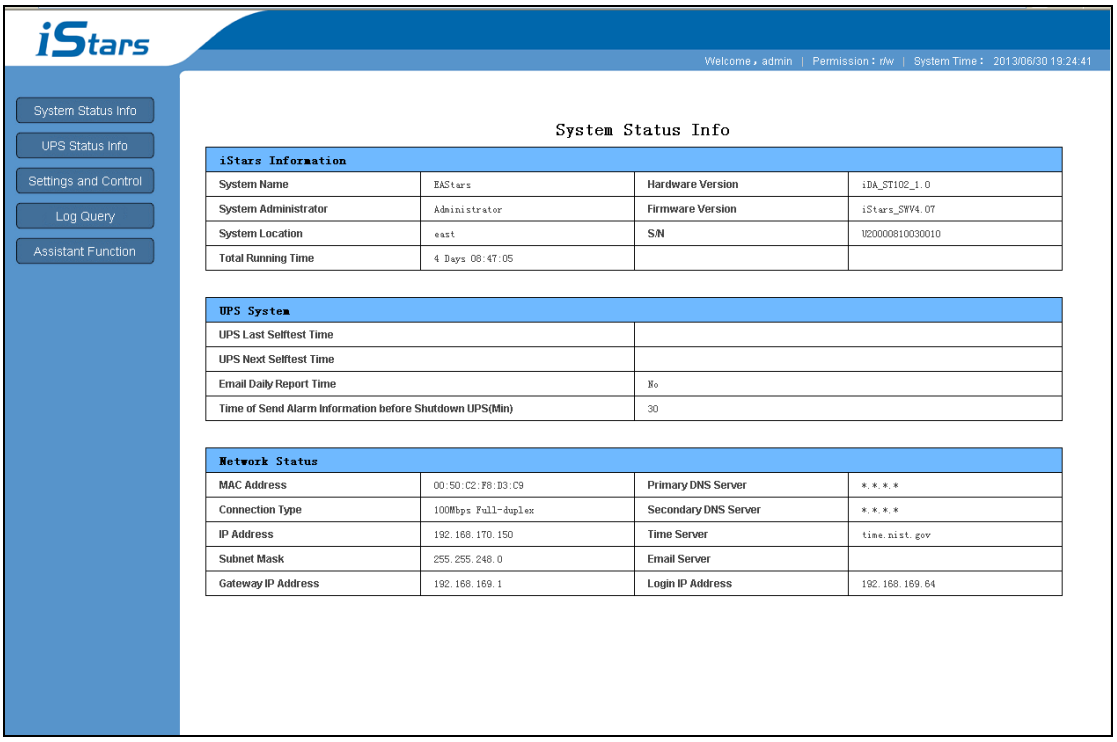


Figure3.2 Homepage of Webpage of iStars

2.1 UPS Message and Status

UPS message and status, mainly introduces general information and operation situation of UPS. There are four sub-function options, UPS basic message; UPS real-time data; UPS real-time status; graph display. It can support several communication protocols which will be introduced in chapter 2.2 setting and control.

2.1.1 UPS Basic Information

UPS basic information page contains UPS information and rating information.

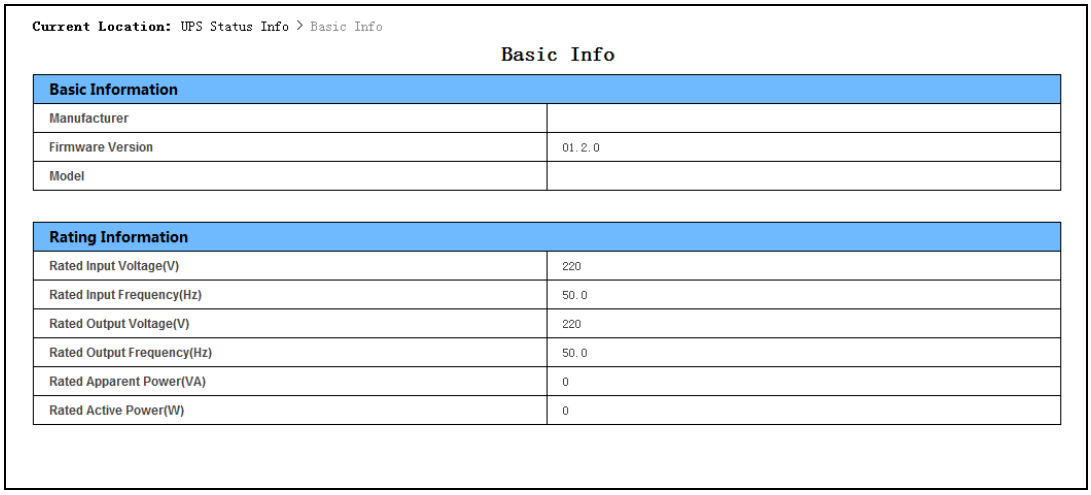


Figure 3.3 Page of Basic Information

UPS Information

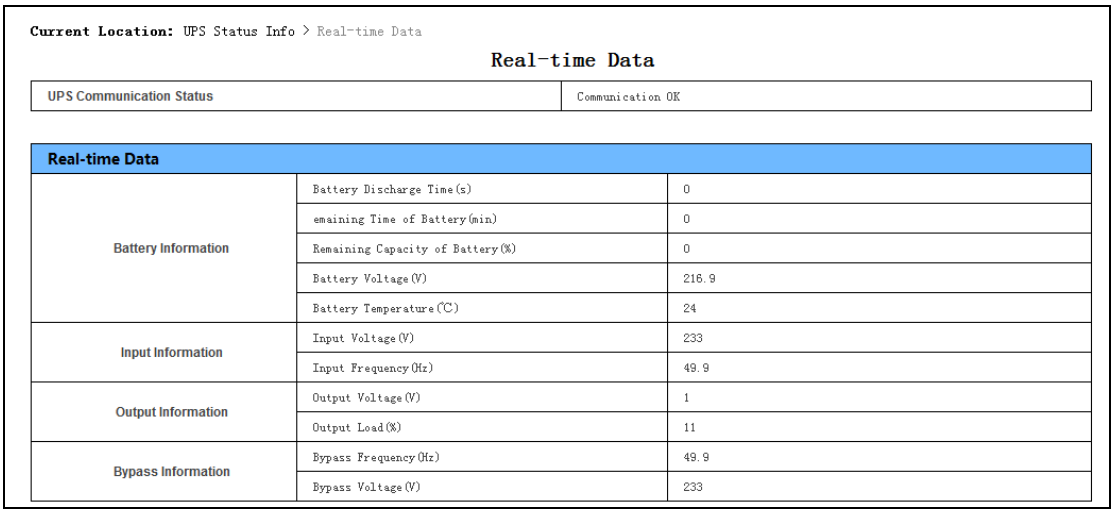
This table mainly introduces the manufacturer of UPS, firmware version, model and type, and all this information will be transferred by UPS automatically.

Rated Information

This table mainly displays rated information of UPS, and will be transferred by UPS automatically.

2.1.2 UPS Real-time Data

UPS Real-time Data mainly displays the Real-time value of UPS data.



Current Location: UPS Status Info > Real-time Data

Real-time Data

UPS Communication Status	Communication OK

Real-time Data		
Battery Information	Battery Discharge Time(s)	0
	emaining Time of Battery(min)	0
	Remaining Capacity of Battery(%)	0
	Battery Voltage(V)	216.9
	Battery Temperature(℃)	24
Input Information	Input Voltage(V)	233
	Input Frequency(Hz)	49.9
Output Information	Output Voltage(V)	1
	Output Load(%)	11
Bypass Information	Bypass Frequency(Hz)	49.9
	Bypass Voltage(V)	233

Figure 3.4 Page of UPS Real-time Data

UPS Communication Status

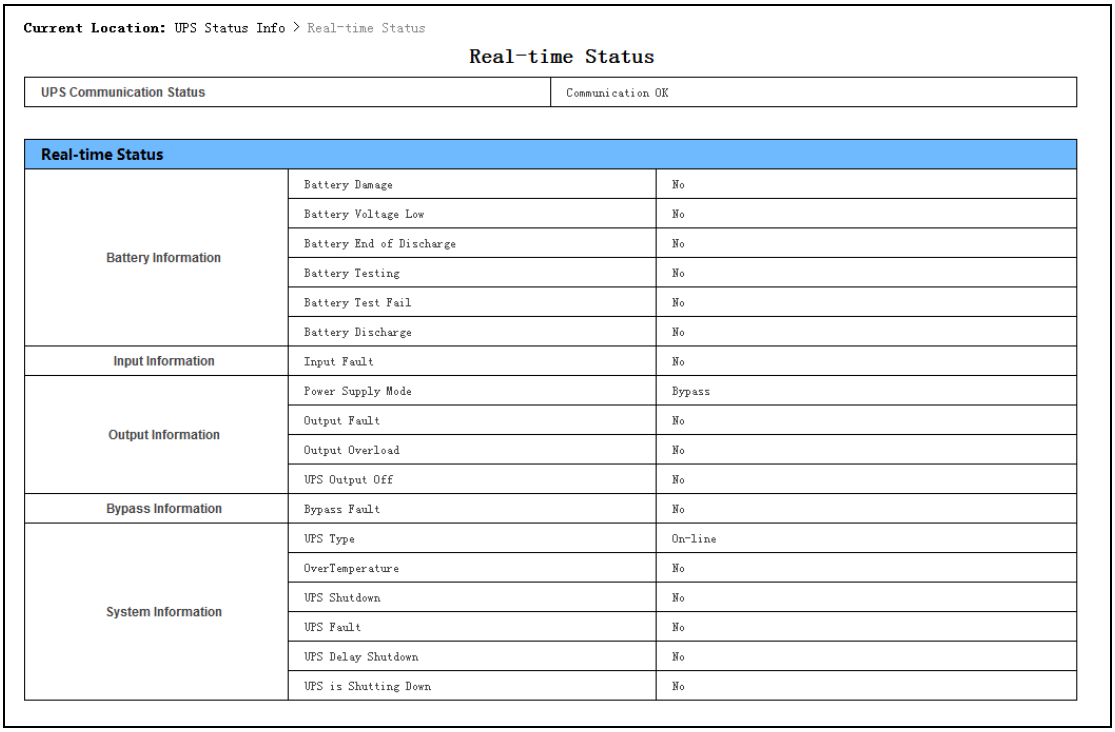
Display connection of UPS and iStars webpage.

Real-time Data

This mode contains Battery information, Input information, Output information, Bypass information; Page displays information will be slightly different depending on the communication protocol, Figure 3.4 UPS real-time data is the page of EA three protocols.

2.1.3 UPS Real-time Status

UPS Real-time status shows whether there is any abnormal phenomenon under various working status of UPS



Current Location: UPS Status Info > Real-time Status

Real-time Status

UPS Communication Status	Communication OK

Real-time Status		
Battery Information	Battery Damage	No
	Battery Voltage Low	No
	Battery End of Discharge	No
	Battery Testing	No
	Battery Test Fail	No
	Battery Discharge	No
Input Information	Input Fault	No
Output Information	Power Supply Mode	Bypass
	Output Fault	No
	Output Overload	No
	UPS Output Off	No
Bypass Information	Bypass Fault	No
System Information	UPS Type	On-line
	OverTemperature	No
	UPS Shutdown	No
	UPS Fault	No
	UPS Delay Shutdown	No
	UPS is Shutting Down	No

Figure 3.5 Page of UPS Real-time Status

UPS Communication Status

Display connection of UPS and iStars webpage.

UPS Real-time Status

This mode contains Battery information, Input information, Output information, Bypass information, System information; Page displays information will be slightly different depending on the communication protocol, Figure 3.5 UPS real-time data is the page of EA three protocols.

2.1.4 Graph Display

Graph shows that the page displays related data of UPS, including voltage, temperatures and load, etc., with stopwatches and curves. Furthermore, you can check part displayed or not, and all can be displayed in default.

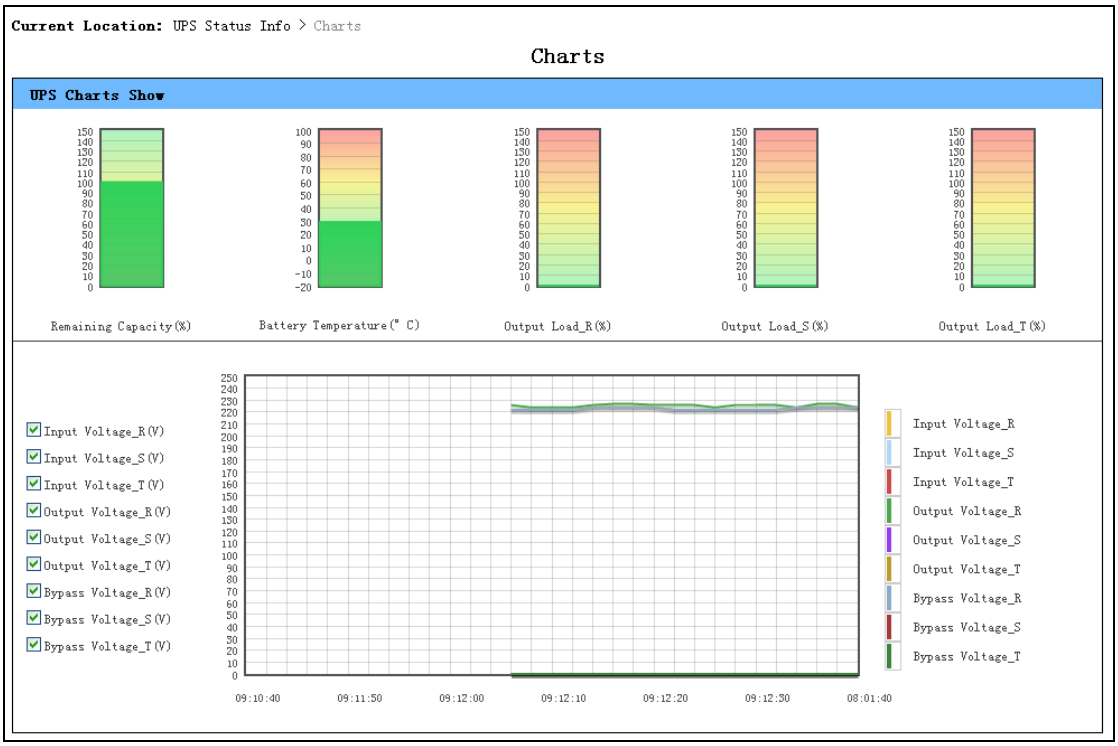


Figure 3.6 Graph Display of Single phase UPS

2.2 Settings and Control

There are nine sub-functional options for this item, Remote Control, UPS Setting, Network setting, UPS On/Off Settings, Network Setting, SNMP Settings, Email Setting, SMS Setting and System Setting according to related information.

This function can't be opened to use for the users, whose limit of authority is only readable.

2.2.1 Remote Control

This function is used to provide remote test control, shutdown or restart of UPS. Click and select the test item, and then click button of apply to take related operation.

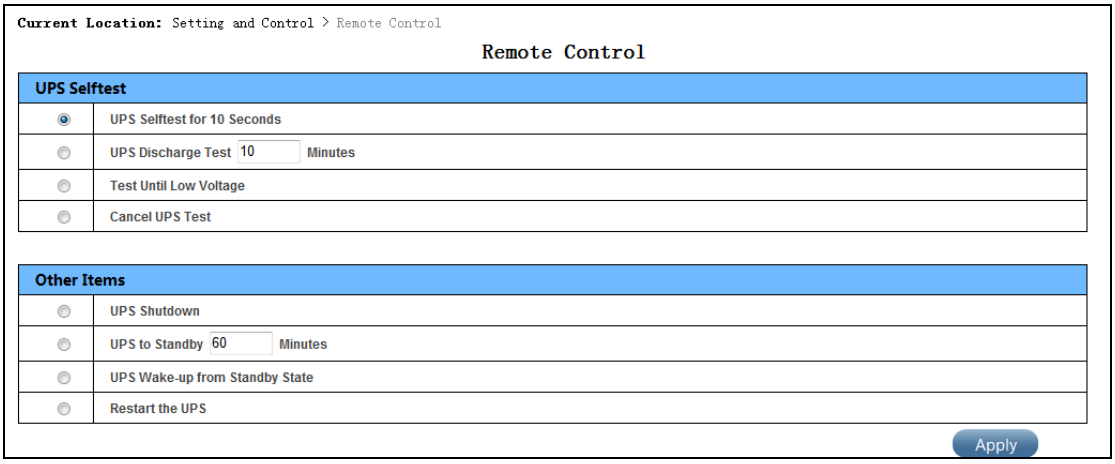


Figure 3.7 Page of Remote Control

UPS Self-test

UPS test in different condition or cancel UPS test. The setting minutes should be integer between 0 and 99.

Other Items

Four functions (UPS shutdown, UPS transfers to standby mode for setting time, wakeup UPS from standby mode, restart UPS) are configurable. The time of standby can be setting between 0 and 9999 integer minutes.

2.2.2 UPS Settings

This webpage is used to set related parameters of UPS, and there are four table options, UPS Parameters, UPS Records, UPS self-test, and Alarming Settings. According to the different protocols, this webpage is also a slight difference. Figure 3.8 is the page of iStars Individual Agreement.

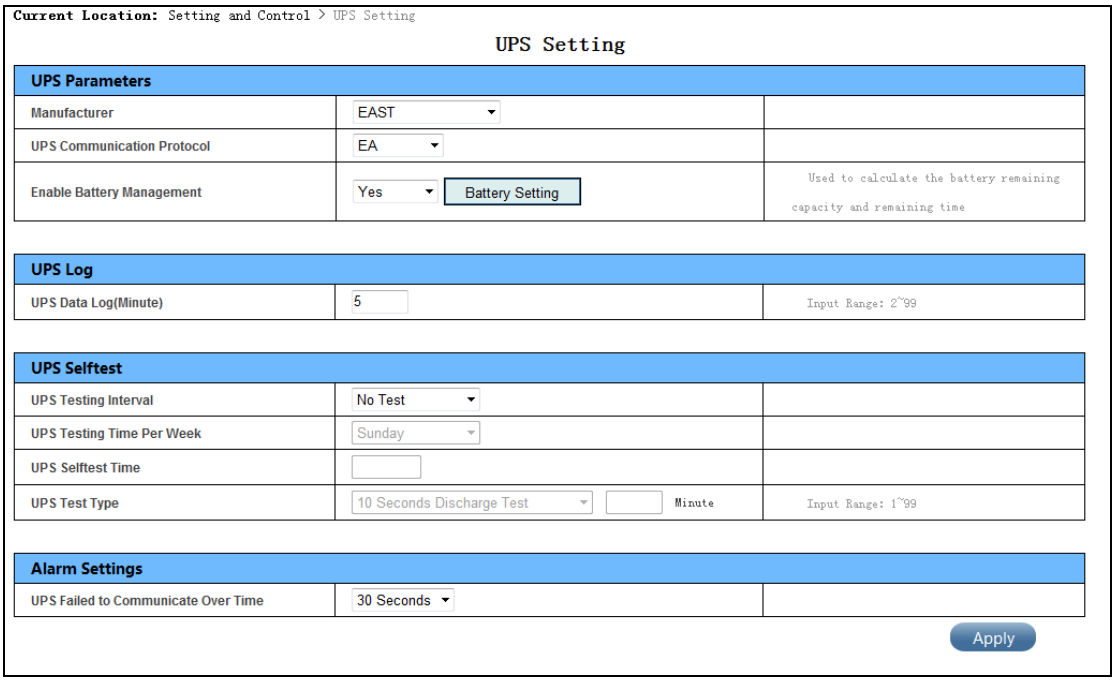


Figure 3.8 Page of UPS Setting

UPS Communication Protocol

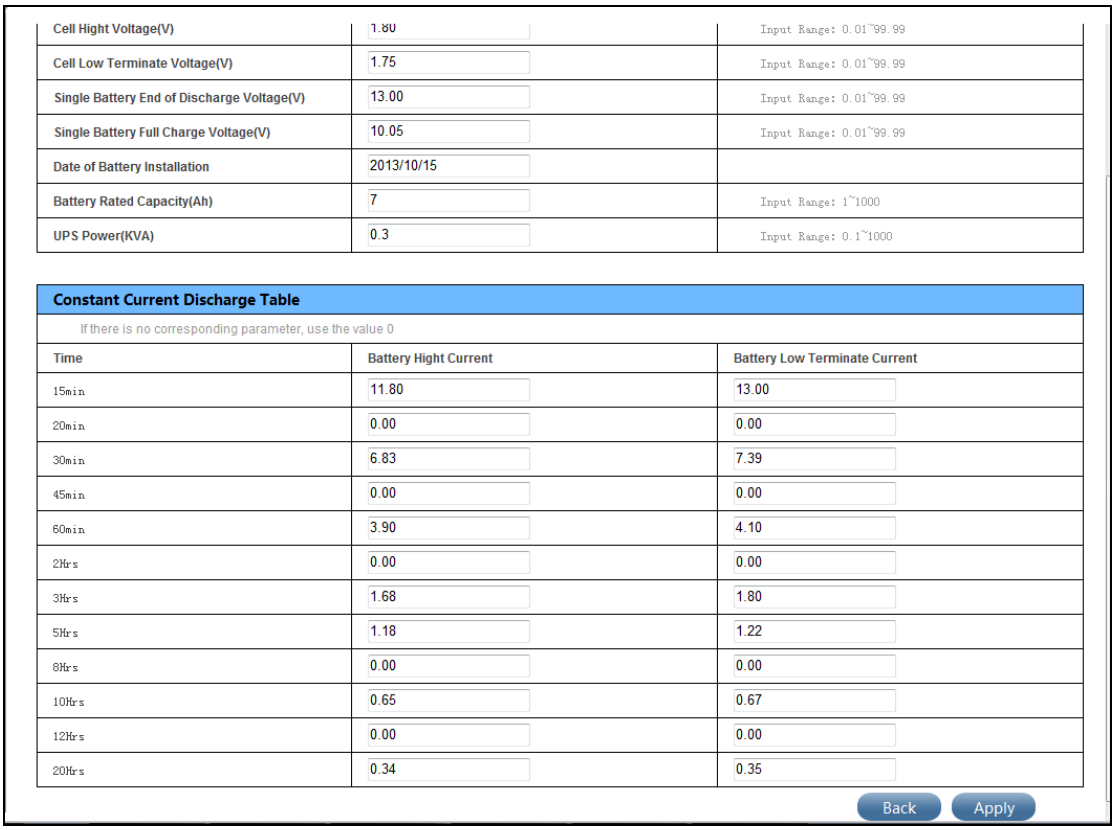
UPS communication protocol selection, including EA, EA three, Emerson NXL，Emerson UL33，Eaton Powerware, Eaton XCP, KSTAR, MGE Galaxy 3000, MGE Galaxy 7000，KEHUA, KEHUA three and so on.

The protocol parameters of different manufacturers may not be consistent, such as Emerson NXL increased the bypass power alone configuration, UL33 increased and system settings (0~4); set use actual according to UPS protocol.

Management of Enabled Battery

Using SNMP to calculate the remaining battery capacity and battery time is limited to part of the agreement.

Battery Parameters Setting as follows:



Cell Hight Voltage(V)	1.80	Input Range: 0.01~99.99
Cell Low Terminate Voltage(V)	1.75	Input Range: 0.01~99.99
Single Battery End of Discharge Voltage(V)	13.00	Input Range: 0.01~99.99
Single Battery Full Charge Voltage(V)	10.05	Input Range: 0.01~99.99
Date of Battery Installation	2013/10/15	
Battery Rated Capacity(Ah)	7	Input Range: 1~1000
UPS Power(KVA)	0.3	Input Range: 0.1~1000

Constant Current Discharge Table

If there is no corresponding parameter, use the value 0

Time	Battery Hight Current	Battery Low Terminate Current
15min	11.80	13.00
20min	0.00	0.00
30min	6.83	7.39
45min	0.00	0.00
60min	3.90	4.10
2Hrs	0.00	0.00
3Hrs	1.68	1.80
5Hrs	1.18	1.22
8Hrs	0.00	0.00
10Hrs	0.65	0.67
12Hrs	0.00	0.00
20Hrs	0.34	0.35

Back Apply

Figure 3.9 Page of Battery Setting

UPS Records

This table sets the time interval of record for UPS.

UPS Testing Interval

Not self-test, self-test once a week and self-test once two week is available. Once not self-test option is active, other settings in this table would be unavailable; Otherwise, when self-test once a week or self-test once two week is set, UPS testing time per week , UPS self-test time and UPS test type are configurable.

UPS Testing Time Per Week

You can determine UPS self-testing in which day every week or every two weeks;

UPS Self-test Time

You can determine UPS self-testing time of the setting day.

UPS Test Type

You can choose UPS self-test 10 seconds, self-testing until Battery voltage low, or self-testing for setting time. The value should be integer between 0 and 99.

Alarm Settings

This table is used to set the limits of alarm. It will give alarm when related value of UPS reaches the set value of alarm. The Alarm setting contains UPS failed to come online over time, UPS load limit, UPS temperature limit and UPS low voltage alarm.

2.2.3 UPS On/Off Settings

This page mainly is used to set the on/off time of UPS power supply. It includes weekly time on/off set, special day on/off set, and other setting.

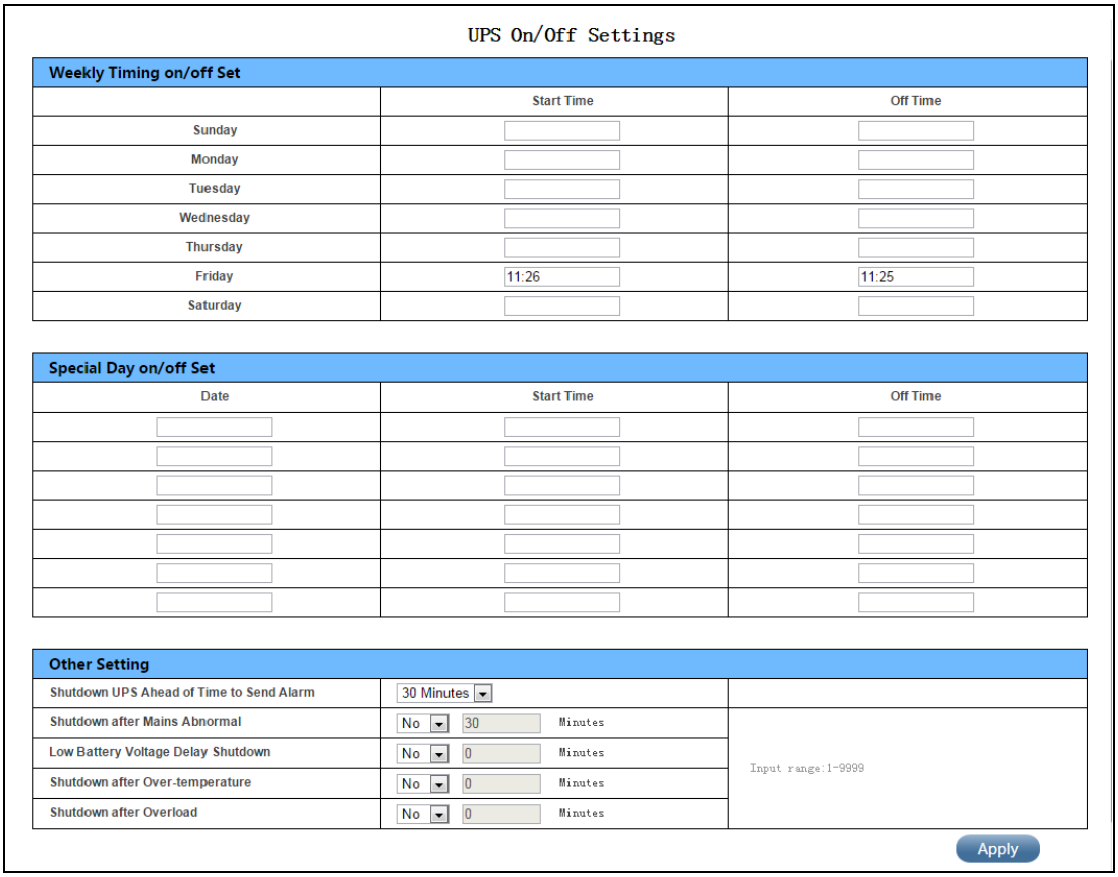


Figure 3.10 Page of UPS On/Off Settings

On / off settings：

On / off setting in special day is prior to weekly timer on / off settings. That is when the weekly setting day and special day is the same day, the on / off setting day is the special day.

Other Settings

The other settings include: before time or special day shutdown send alarm, Shutdown setting after a certain period of time under certain conditions, such as off after the battery voltage is low-latency, off after over-temperature, off after overload.

2.2.4 Wake on LAN

The LAN Computer will be waked up with network after power restored.

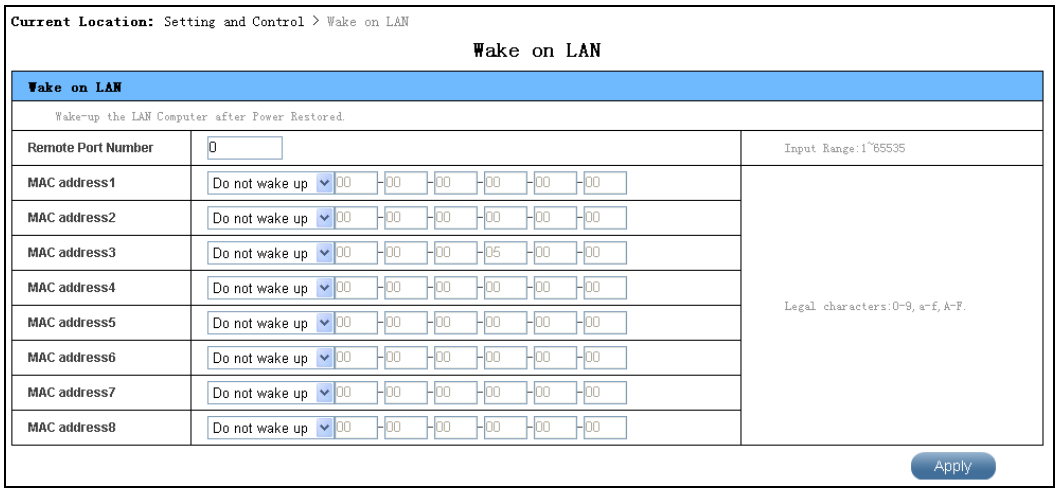


Figure 3.11 Page of Wake on LAN

Remote Port Number

Set the remote port number.

MAC address 1~8

MAC address is set with iStars computer within the same LAN. After utility power is restored and set whether to wake the computer.

2.2.5 Network Settings

All related network information parameters can be set when iStars and UPS comminutes with network. It contains connection status, DNS server IP address, and remote login page.

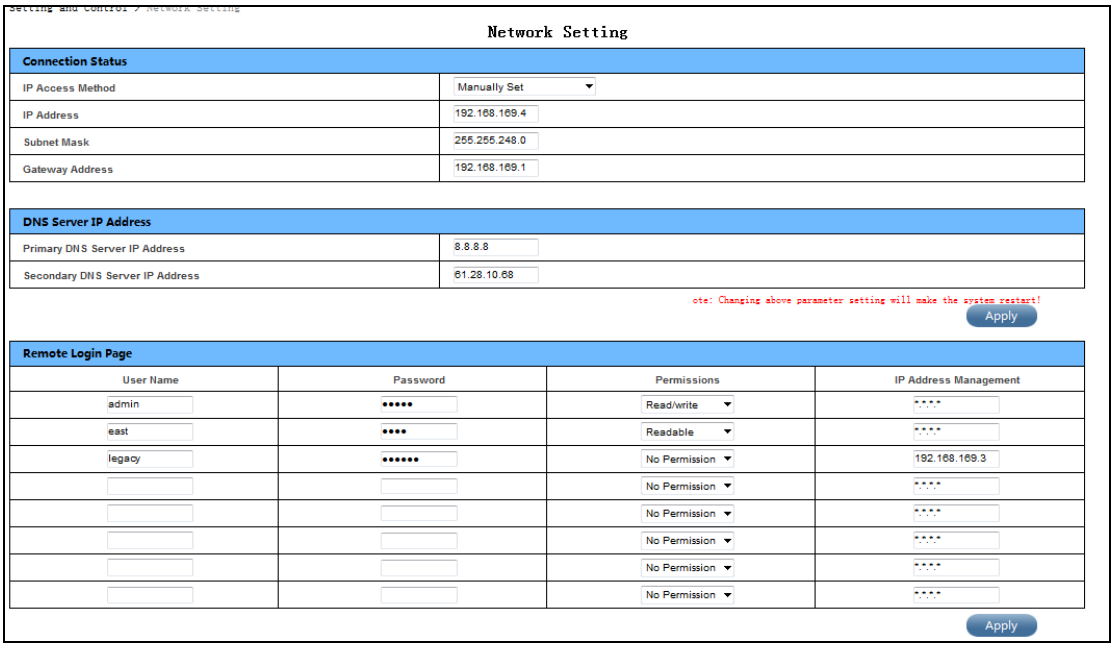


Figure 3.12 Page of Network Setting

Connection Status/ DNS Server IP Address

IP obtaining method can be manual set or DHCP automatic setting.

When DHCP automatic setting is selected, other contents in connecting status and IP address of DNS cannot be operated, and all values in these two tables will be displayed according to the value of the software iSearch.

When manual setting is selected, it can set the IP address, subnet mask, Gateway Address, IP addresses of primary and secondary DNS.

Remote Login Page

This table can set the name, password, permission, and IP address of login of users.

Permission set contains no permission, read, and read/write. When no permission is selected, the username, password and IP address cannot be managed. When user permission is set as readable, the setting function, saving function of record enquiry page, firmware updating of auxiliary function page in iStars cannot be used.

When an IP is set, the user only can login iStars under the IP. If not set the IP address, using the username can login iStars by any computer.

2.2.6 SNMP Settings

SNMP setting is used for Trap notice and SNMP protocol notice.

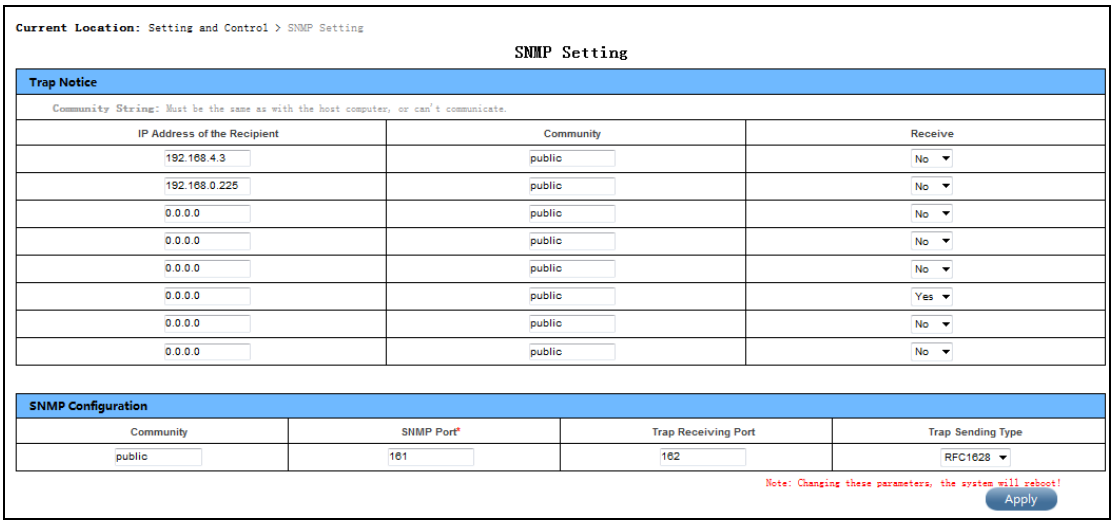


Figure 3.13 Page of SNMP Settings

Trap Notice

IP address of the recipient:

This function is set to receive IP address of Trap notification. Users please set your own based on actual IP address. .

Community: This set value must be the same as that of receive computer, or the computer cannot receive the notice.

Receive: This function is used to set whether receive the trap notice.

SNMP Configuration

Community String: This set value must be the same as that of receive computer, or the computer cannot receive the notice

2.2.7 Email Settings

This page determines whether transfer information to the destination Email address, when iStars detects related event of UPS. This page contains Email set, Email address of receiver (used to record the received event), Email address of receiver (used to receive the daily log), and test set.

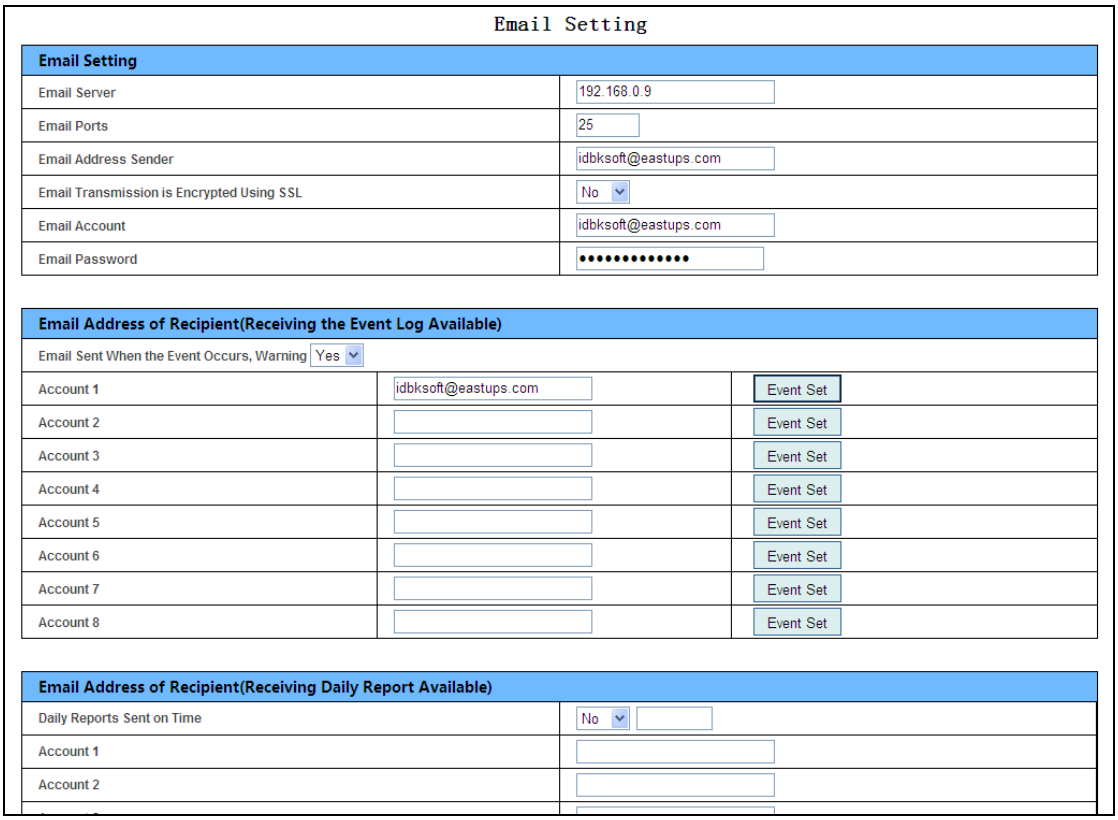


Figure 3.14 Page of Email Setting

Email Settings

Email Server

This address is used to set the server address of Email receiver, set format is website format such as www.google.com, and it also can be written as IP address format such as 192.168.6.188.

Email Ports

Set of receiving port of Email. Set format is integer.

Email Address Sender

This address is used to set the Email address of sender.

Email Transmission is Encrypted Using SSL

Option whether SSL encrypted transmit is used for Email.

Account Number

Set Email account of sender, which shall be the same as Email address of sender.

Password

Set Email account password of sender.

Email Address of Recipient (Receiving the Event Log Available)

Email Sent When the Event Occurs, Warning

It can set whether send the related event by Email when fault of UPS is detected.

Account Number 1~8

E-mail account of receiver.

Selected

It can select partial or all events detected by iStars to send to the setting Email account, and detailed events can be seen in Figure 3.14 UPS Event Page.

Figure 3.15 Page of UPS Event

Email Address of Recipient (Receiving Daily Report Available)

Daily Reports Sent on Time

This option is used to set whether sending daily log.

Account Number 1~4

Email account of setting receiving of daily log.

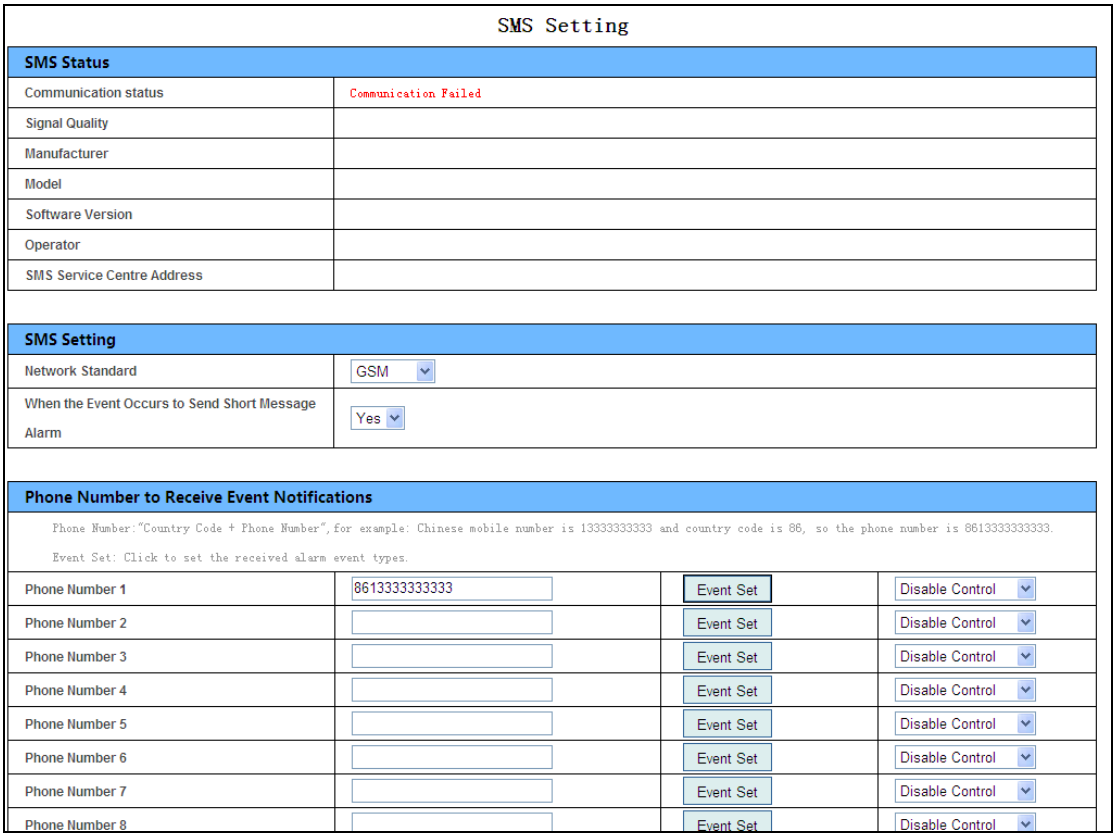
Test Set

Test E-mail Recipient

It is used to set Email address of receive. If the email function is ok, receiver will receive a test mail.

2.2.8 SMS Settings

SMS Setting is similar with that of Email setting, and iStars sends the data and events with form of short message. It includes SMS communication status, and SMS setting, receive text messages by mobile phone, test set.



SMS Setting

SMS Status	
Communication status	Communication Failed
Signal Quality	
Manufacturer	
Model	
Software Version	
Operator	
SMS Service Centre Address	

SMS Setting	
Network Standard	GSM
When the Event Occurs to Send Short Message Alarm	Yes

Phone Number to Receive Event Notifications

Phone Number:"Country Code + Phone Number", for example: Chinese mobile number is 13333333333 and country code is 86, so the phone number is 8613333333333.

Event Set: Click to set the received alarm event types.

Phone Number 1	8613333333333	Event Set	Disable Control
Phone Number 2		Event Set	Disable Control
Phone Number 3		Event Set	Disable Control
Phone Number 4		Event Set	Disable Control
Phone Number 5		Event Set	Disable Control
Phone Number 6		Event Set	Disable Control
Phone Number 7		Event Set	Disable Control
Phone Number 8		Event Set	Disable Control

Figure 3.16 Page of SMS Setting

SMS Status

Display the communication status, signal quality, manufacturers and other relevant information of iStars external GPRS module.

Message Settings

Message setting includes network system settings, and sending message wh en UPS is abnormal.

Phone Number 1~8

Set mobile phone number of receiver.

Selected

It can select partial or all events detected by iStars to send to the setting Mobile phone number, and detailed events can be seen in Figure 3.15 UPS Event Page.

Test Settings

Test the mobile phone of message receiver, and whether mobile phone number of receiver can receive the message. The receiver will receive a test message if the function is ok.

2.2.9 T&H Module

T&H Module includes communication status, real-time data as well as upper and lower li mit setting function. T&H Module and Message Setting can't be used simultaneously.

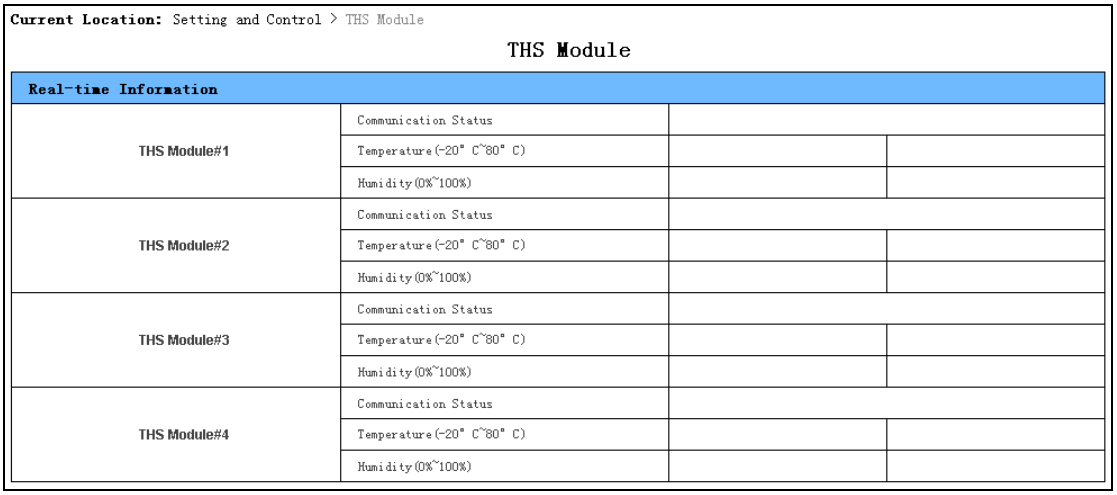


Figure 3.17 Page of T&H Module(1)

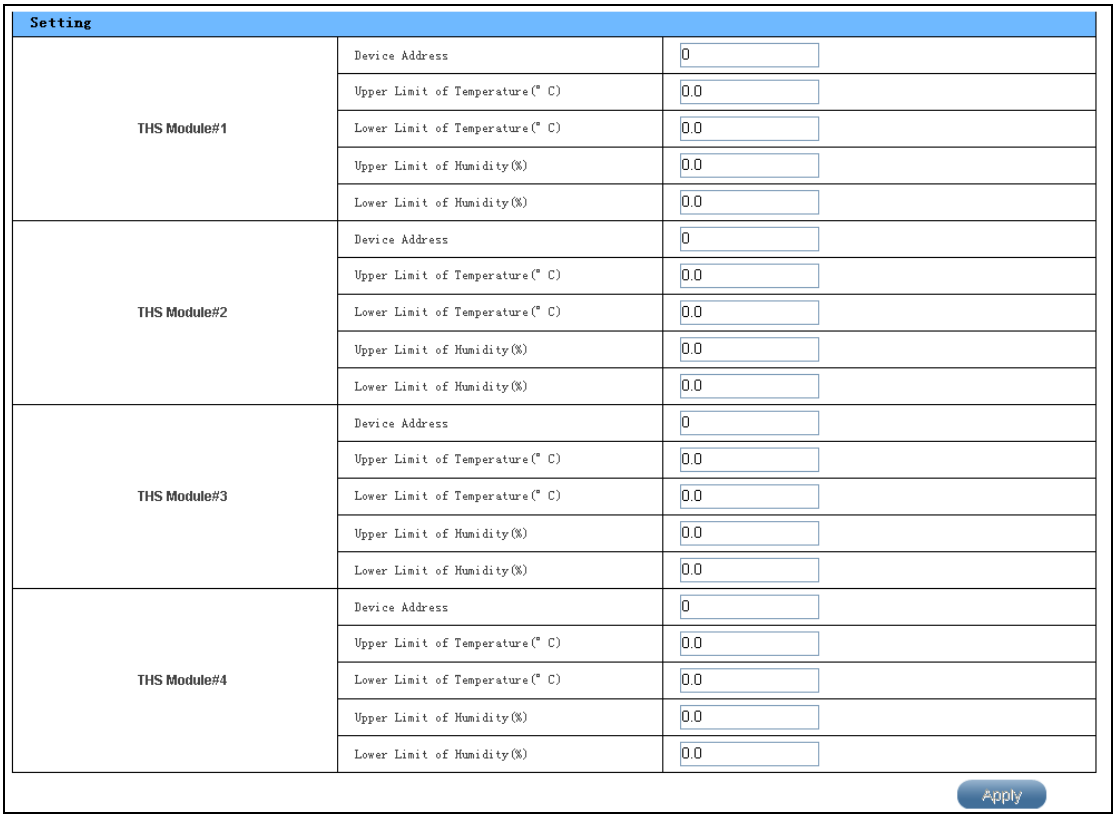


Figure 3.18 Page of T&H Module(2)

Communication Status

Display the communication status between T&H Module and iStars.

Real-time Information

Display real-time data and status of temperature and humidity.

Set

Set upper and lower limits of temperature and humidity

2.2.10 System Settings

System settings page is used to set parameter of iStars, including system configurations, system time, language setting, and port setting.

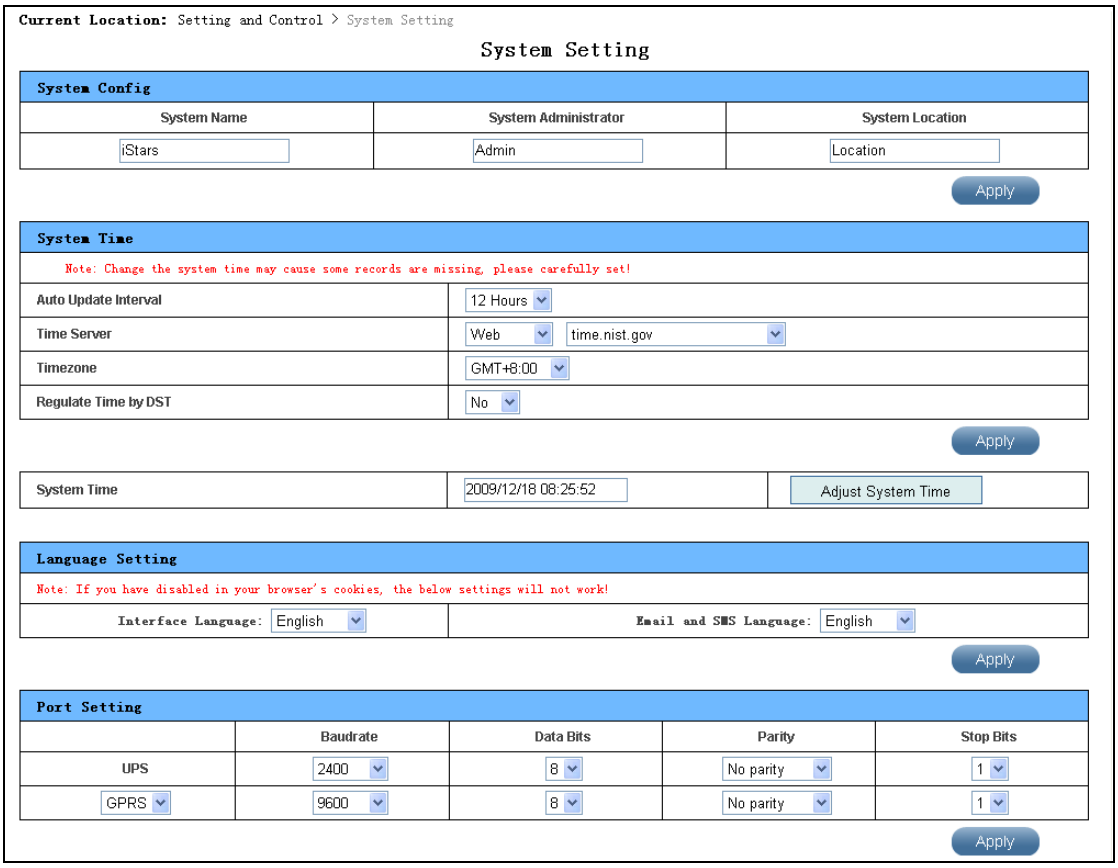


Figure 3.19 Page of System Setting

System Configurations

System Name

Set the name of iStars, this option can be named by user.

System Administrator

Set the name of administrator of iStars.

System Location

Set the location of iStars.

System Time

Auto update interval

This item is used to set the interval of update operation of the system.

Time Server

This item is used to set the IP address of time server.

Time zone (relative to Greenwich): this item is used to adjust and set the time zone according to different countries. GMT is the time in Greenwich, “+” means east zone, and “-” means west zone.

Auto Regulate

If this item is selected as yes, the summer time will be changed automatically.

System Time

This item is used for user to update the time manually.

Language Settings

Web Language Setting

This table is language setting interface of iStars.

E-mail/SMS Update Language Settings

This table is used to set the email or message written in English or Chinese when information is send to receive.

Port Settings

Set the transfer port and type of iStars, including port settings of UPS, GPRS and T&H. However, between GPRS and T&H, only one can be chosen, because GPRS is message port and T&H is T&H Module port.

Please according to the actual port of UPS to choose the correct configuration, set improperly may cause abnormal communication.

Port

RS232 port or RS485 port

Baud rate

1200, 2400, 4800, 9600, 19200, 38400 and 57600

Data Bits

5~8 data bits

Parity

no parity, odd , even, Space Parity, and Mark Parity

Stop Bits

1~2 stop bits

2.3 Record Query

There are three sub-functional options under this main functional option, event log, SMS log, and UPS data log. In this functional option, it can enquiry certain historical records by inputting year and month and date, all records will be saved in the iStars system for one year, and it can save related record information in the computer by button of save in the page.

2.3.1 Event Log

In this page, the date/time and description of UPS event is recorded. If you want to check the event record of one month, input an integer with 4 bits for year, integer with 2 bits for month.

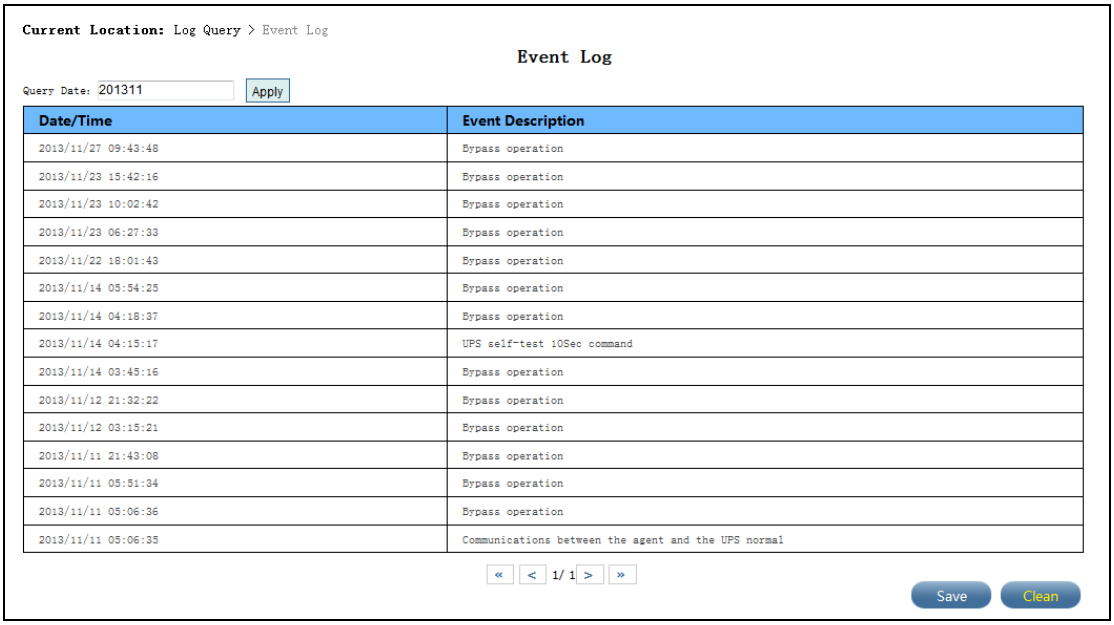


Figure 3.20Page of Event Log

Date/Time

Record the date (year/month/date) and time (hour: minute: second) of UPS event.

Event Description

Record detailed content of UPS event.

2.3.2 SMS Log

In this page, the content of SMS, the time and which mobile it is sent to are recorded. Records can be inquired monthly.

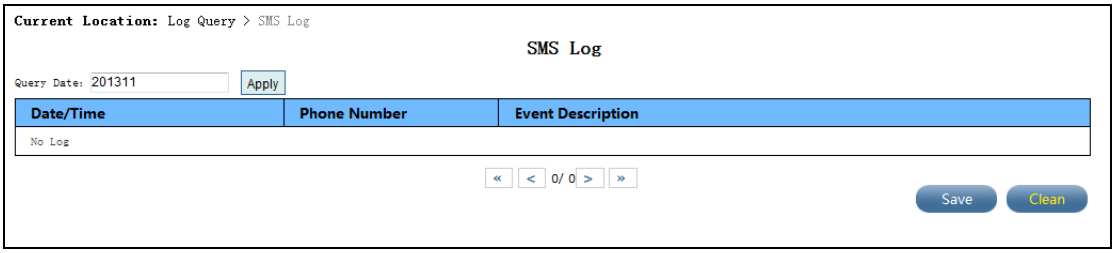


Figure 3.21 Page of SMS Log

2.3.3 UPS Date Log

In this page, the input voltage, output voltage, input frequency, bypass frequency, output frequency, load, capacity, and temperature of UPS can be recorded according to the set time of UPS data record in page of UPS parameter set. Inputting the enquired year, month and date the UPS data record of a specific day can be derived. Data can't be inquired when the time does not exist.

Date/Time

Record corresponding date (year/month/date) and time (hour: minute: second) of data record.

Input Voltage

Record the input voltage of UPS.

Output Voltage

Record the output voltage of UPS.

Input Frequency

Record the input frequency of UPS.

Bypass Frequency

Record the bypass frequency of UPS.

Output Frequency

Record the output frequency of UPS.

Load

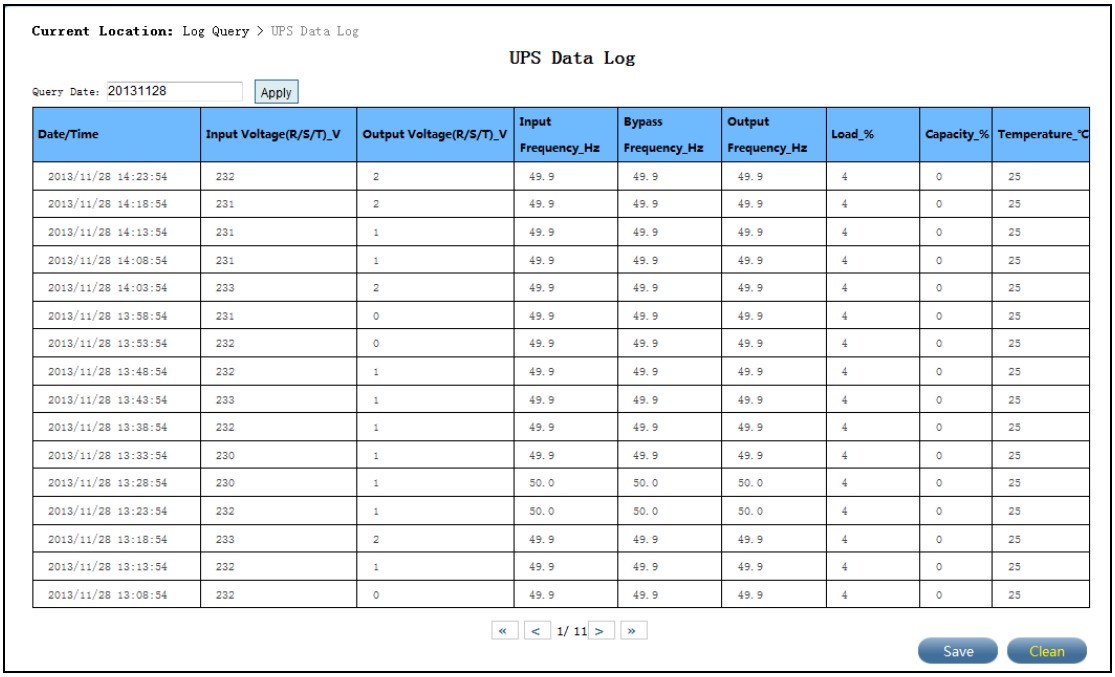
Record the load of UPS.

Capacity

Record the capacity of UPS.

Temperature

Record the temperature of UPS.



Current Location: Log Query > UPS Data Log

UPS Data Log

Query Date: 20131128 Apply

Date/Time	Input Voltage(R/S/T)_V	Output Voltage(R/S/T)_V	Input Frequency_Hz	Bypass Frequency_Hz	Output Frequency_Hz	Load_%	Capacity_%	Temperature_°C
2013/11/28 14:23:54	232	2	49.9	49.9	49.9	4	0	25
2013/11/28 14:18:54	231	2	49.9	49.9	49.9	4	0	25
2013/11/28 14:13:54	231	1	49.9	49.9	49.9	4	0	25
2013/11/28 14:08:54	231	1	49.9	49.9	49.9	4	0	25
2013/11/28 14:03:54	233	2	49.9	49.9	49.9	4	0	25
2013/11/28 13:58:54	231	0	49.9	49.9	49.9	4	0	25
2013/11/28 13:53:54	232	0	49.9	49.9	49.9	4	0	25
2013/11/28 13:48:54	232	1	49.9	49.9	49.9	4	0	25
2013/11/28 13:43:54	233	1	49.9	49.9	49.9	4	0	25
2013/11/28 13:38:54	232	1	49.9	49.9	49.9	4	0	25
2013/11/28 13:33:54	230	1	49.9	49.9	49.9	4	0	25
2013/11/28 13:28:54	230	1	50.0	50.0	50.0	4	0	25
2013/11/28 13:23:54	232	1	50.0	50.0	50.0	4	0	25
2013/11/28 13:18:54	233	2	49.9	49.9	49.9	4	0	25
2013/11/28 13:13:54	232	1	49.9	49.9	49.9	4	0	25
2013/11/28 13:08:54	232	0	49.9	49.9	49.9	4	0	25

« < 1/ 11 > »

Save Clean

Figure 3.22Page of UPS Data Log

2.4 Assistant Function

Assistant Function includes firmware update, port debug and about.

2.4.1 Firmware Update

This page is used to set update of related firmware, including version, local update and FTP update. According to network condition and the size of update package, uploading files or firmware update may take several seconds or several minutes. Please wait patiently. When firmware version finishes updating, iStars will automatic restart. (Warning: don't power down during the restart process, it may course the product doesn't work). During the restart process the Monitoring Webpage can't react and iSearch can't search its URL. When the restart process is finished, please check whether iSearch, the page of firmware update, system information, and the firmware version of status page have been updated yet.

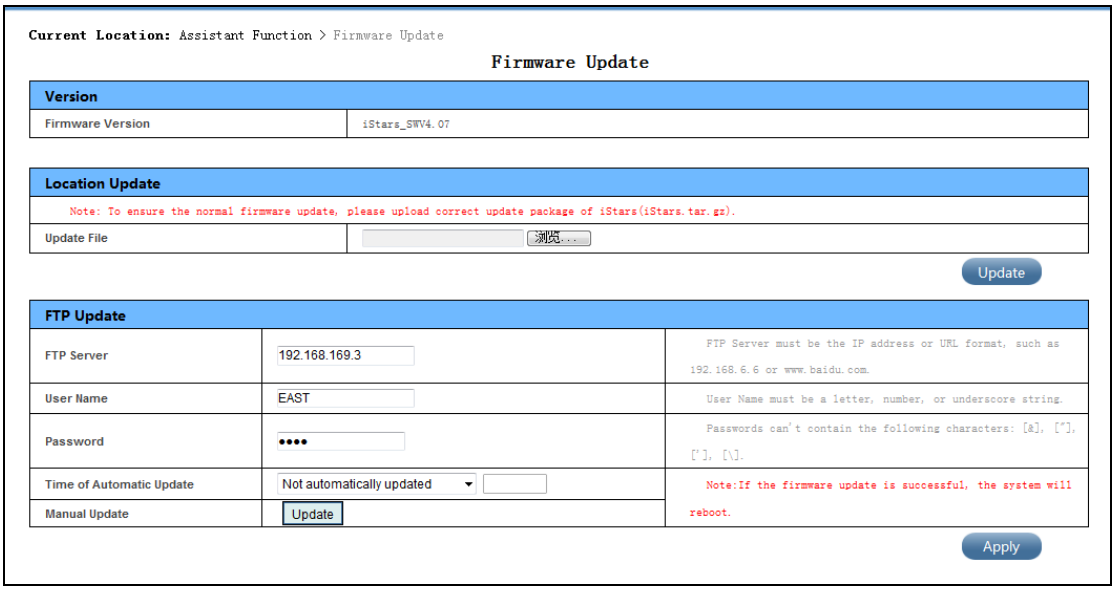


Figure 3.23 Page of Firmware Update

Version

This table displays the version of current firmware used by iStars.

Local Update

Update firmware version by local uploading update package.

FTP Update

Update firmware version by FTP.

FTP server:

The IP address of FTP Server is as the same as the IP address of User works tation.

FTP server must be switched on and set the path of upgraded version.

User name: set username of FTP server.

Password: set passwords of FTP serve.

Automatic updates time: used to set the automatic update mode. It can be set as updating at specific time every day or every week.

Update

Update option can update the version of firmware with iSearch by hand at any time. After the progress of update firmware is finished.

2.4.2 Port Debug

TO display and export the UPS and GPRS port debug information.

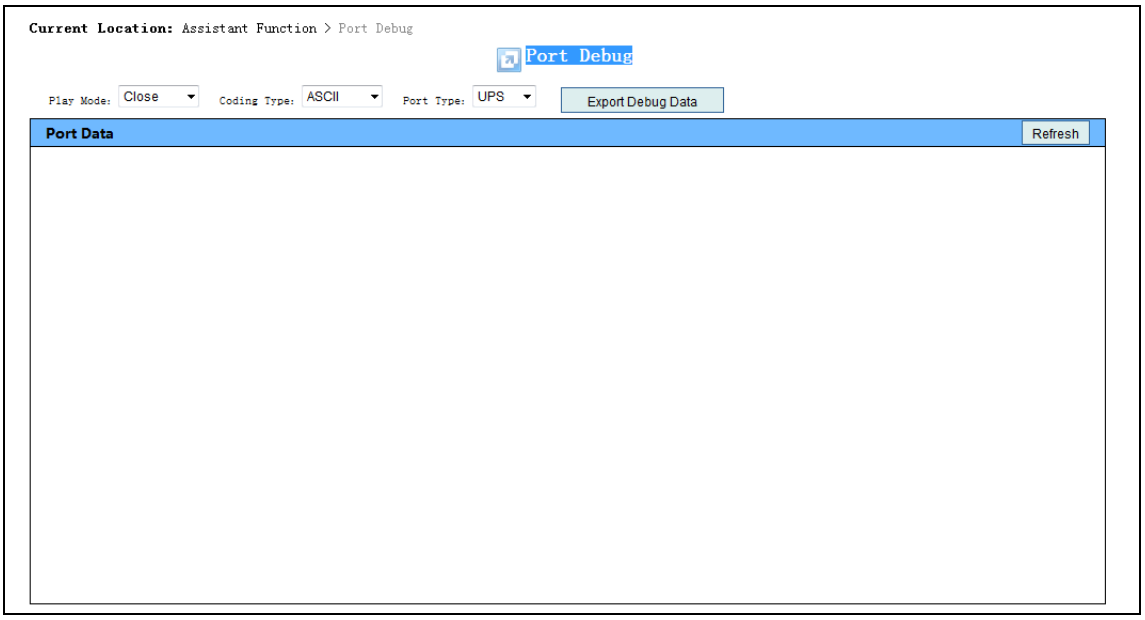


Figure 3.24 Page of Port Debug

2.4.3 About

This page records related information of iStars software.

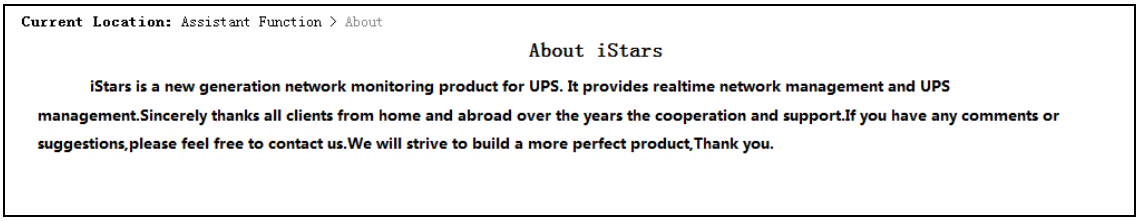


Figure 3.25 Page of about

CHAPTER4 WEB MANAGEMENT OF MOBILE

Section1 Introduction

After finishing hardware connection and setting of iStars and network, according to the IP address of iStars obtained by iSearch, use the browser of any mobile phone, input IP address of iStars, and then it can enter into the monitoring page of iStars to remotely monitor the UPS or set related information.

⚠ *Make sure that the IP address is under the same net work segment with the mobile IP.*

(1) Start the browser.

(2) Input IP address of iStars (for example: 192.168.6.6).

(3) Input the username and password, click and confirm to enter into the monitoring page. An initial account with default username: admin and passwords: admin is set. User can add or delete corresponding user account and authority in setting pages by web management of PC.

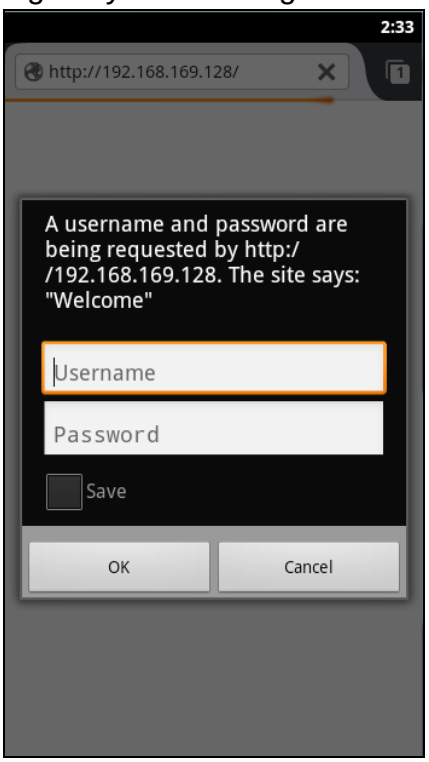


Figure 4.1 Webpage Login Interface of iStars

Section2 UPS Web Interface

After entering into iStars webpage current login username and its authority, System functional menu and status will be displayed in home page.

There are eight items for major functional options of system menu:

2.1 System Information

2.2 UPS Information

2.3 UPS Real-time Data

2.4 UPS Real-time Status

2.5 Remote Control

2.6 SMS

2.7 T&H Module

2.8 PC Edition

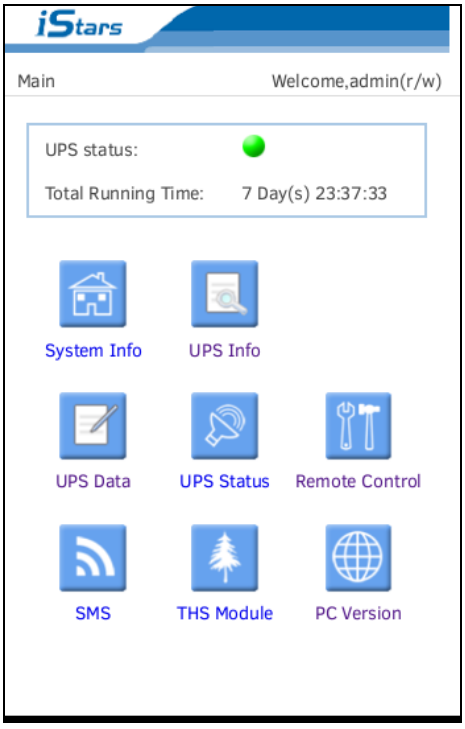


Figure4.2 Homepage of Webpage of iStars

2.1 System Information

System functional mainly displays the system name, administrator,

location, version and S/N of iStars.

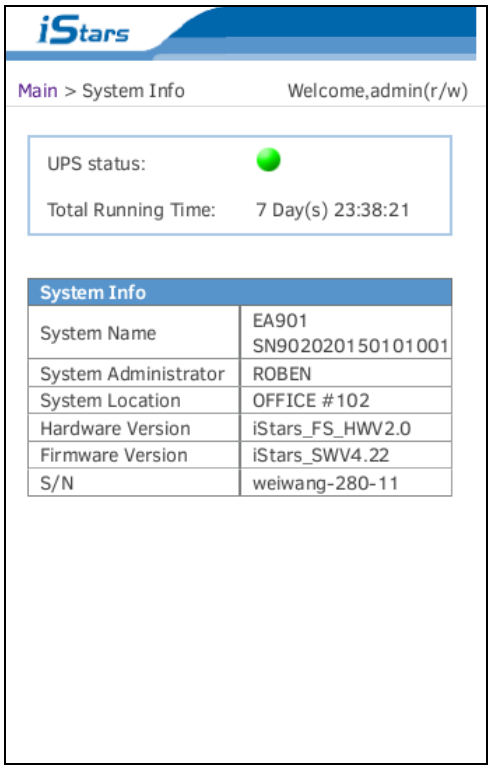


Figure4.4 Page of System Information

2.2 UPS Basic Information

UPS basic information page contains UPS information and rating information

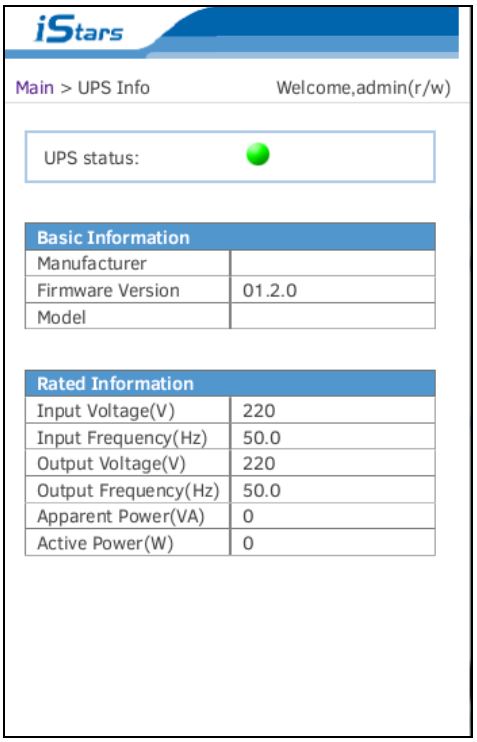


Figure4.5 Page of UPS Basic Information

UPS Information

This table mainly introduces the manufacturer of UPS, firmware version, model and type, and all this information will be transferred by UPS automatically.

Rated Information

This table mainly displays rated information of UPS, and will be transferred by UPS automatically.

2.3 UPS Real-time Data

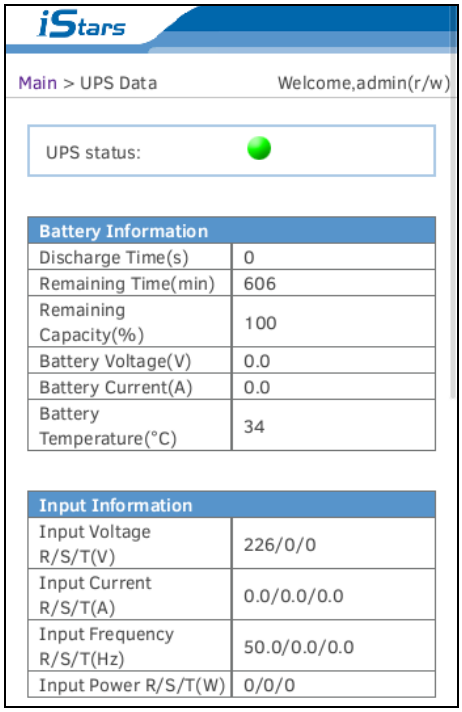


Figure 4.5 Page of UPS Real-time Data

UPS Communication Status

Display connection of UPS and iStars webpage.

Real-time Data

This mode contains Battery information, Input information, Output information, Bypass information; Page displays information will be slightly different depending on the communication protocol, Figure 3.4 UPS real-time data is the page of EA three protocols.

2.4 UPS Real-time Status

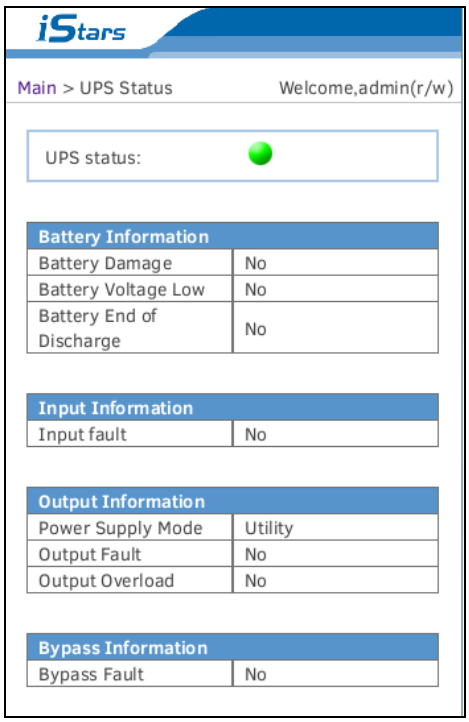


Figure 4.6 Page of UPS Real-time Status

UPS Communication Status

Display connection of UPS and iStars webpage.

UPS Real-time Status

This mode contains Battery information, Input information, Output information, Bypass information, System information; Page displays information will be slightly different depending on the communication protocol, Figure 3.5 UPS real-time data is the page of EA three protocols.

2.5 Remote Control

This function is used to provide remote test control, shutdown or restart of UPS. Click and select the test item, and then click button of apply to take related operation.

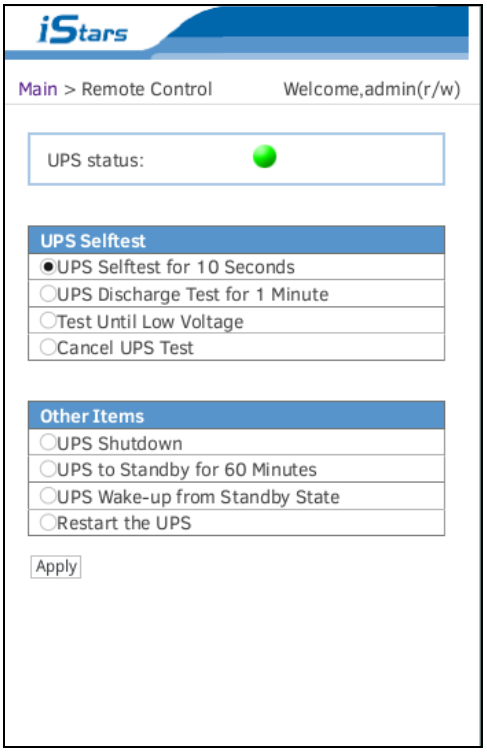


Figure 4.7 Page of Remote Control

UPS Self-test

UPS test in different condition or cancel UPS test.

Other Items

Four functions (UPS shutdown, UPS transfers to standby mode for setting time, wakeup UPS from standby mode, restart UPS) are configurable.

2.6 SMS

SMS function need external GPRS module.

Figure 4.8 Page of SMS

SMS Status

Display the communication status, signal quality, manufacturers and other relevant information of iStars external GPRS module.

2.7 T&H Module

T&H Module function need external T&H module.T&H Module and SMS can't be used simultaneously.

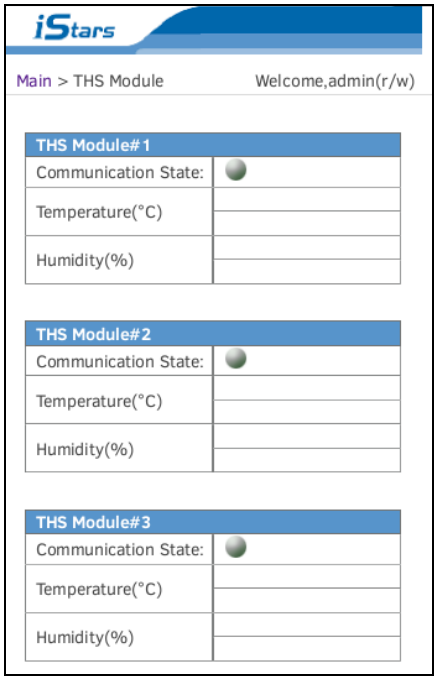


Figure 4.9 Page of T&H Module

Communication Status

Display the communication status between T&H Module and iStars.

Real-time Information

Display real-time data and status of temperature and humidity.

2.8 PC Edition

Click this button, it can jump to the web page of PC, as follows.

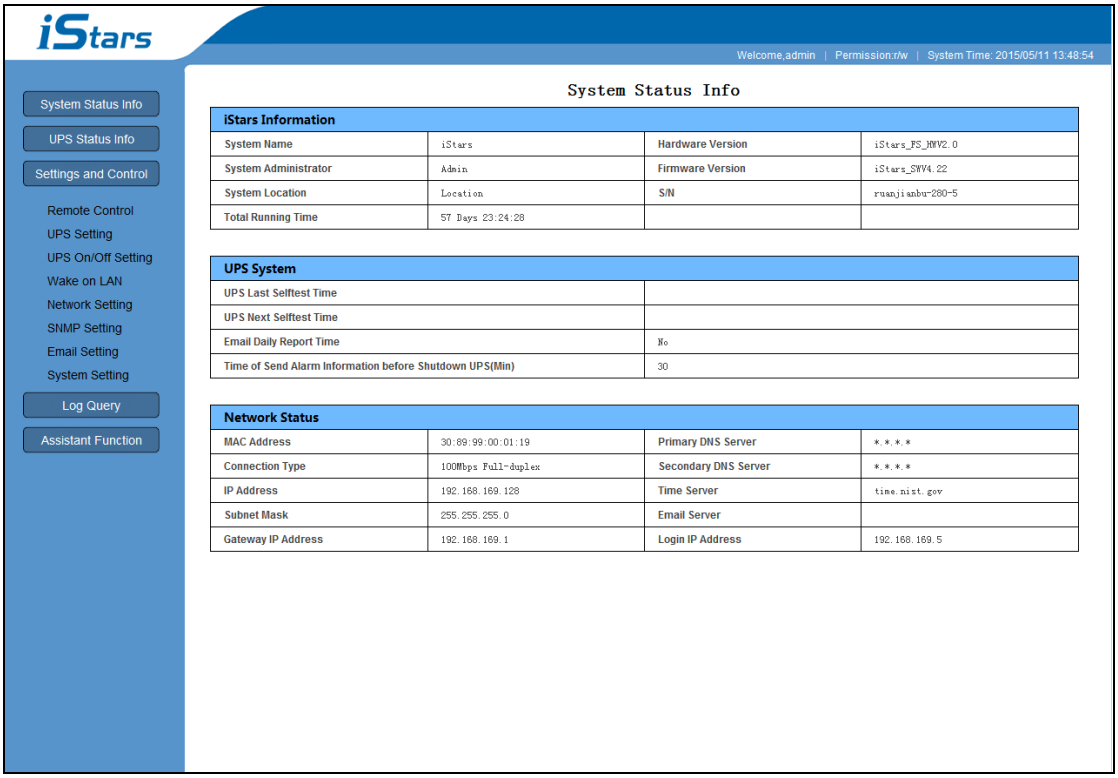


Figure 4.9 Page of PC