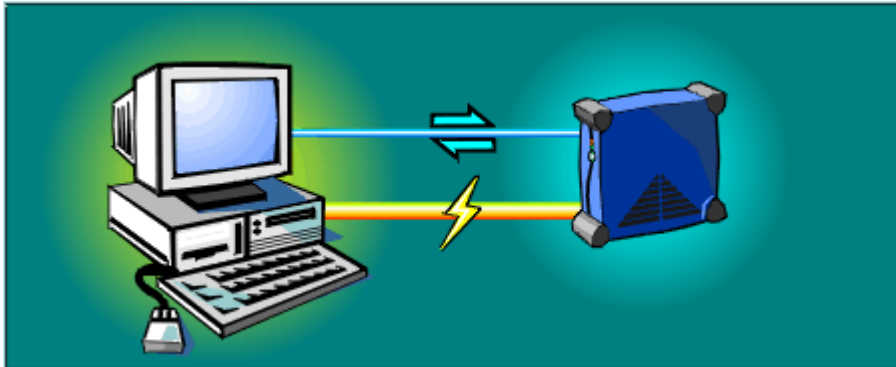


User Manual

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#1 System summarize

Muser1000 is a software for cooperate with PC and UPS. Its major function is following:



- Manage the communication connection with UPS
- Monitor all current data from UPS
- Display UPS work state with figure
- Control UPS
- Set UPS rating parameter
- Log all events and alarm informations

#2 System circumstance require

RS-232 communication port: COM1-COM4

Operating system:

- Microsoft Windows 98
- Microsoft Windows 2000
- Microsoft Windows NT
- Microsoft Windows Me
- Microsoft Windows XP

#3 Hardware install

Muser1000 hardware install steps:

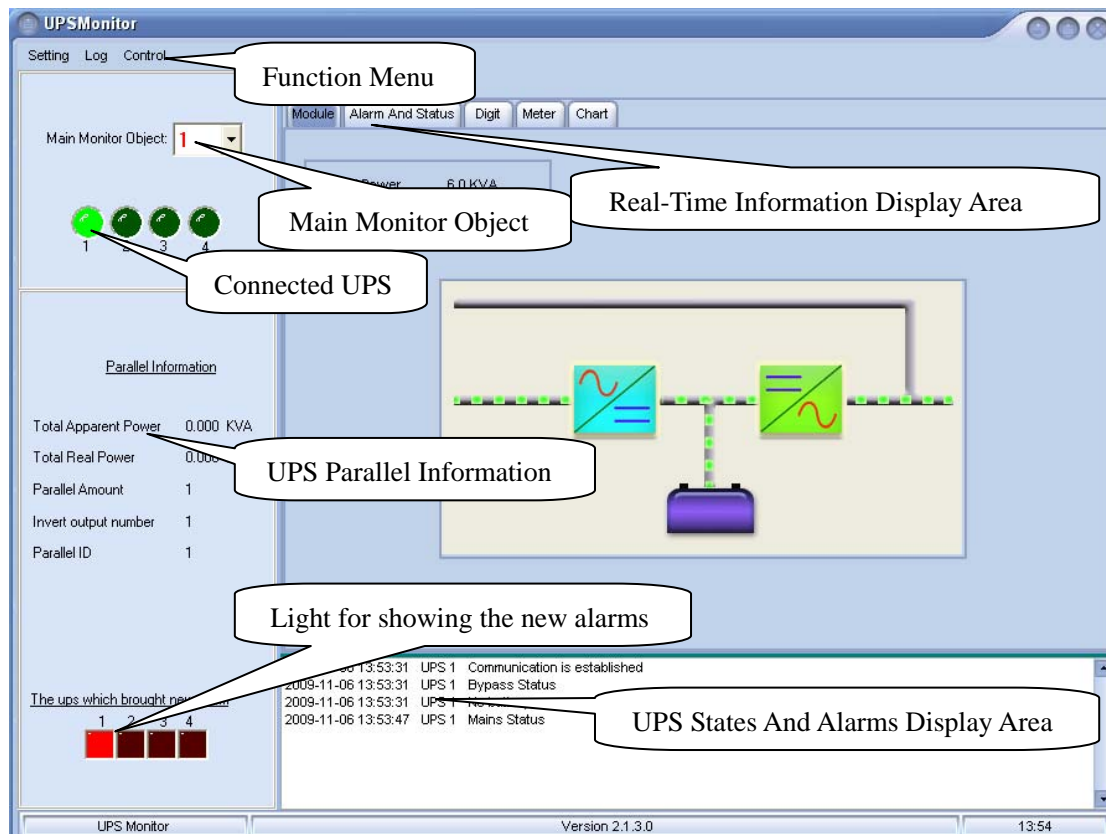
- Connect UPS and PC with serial port cable
- Male serial port connect to the RS232 communication port of UPS
- Female serial port connect to the RS232 communication port of PC

#4 Software install

- Put Muser1000 CD into CD-ROM
- Run setup.exe program, By default, the program will be installed into “C:\Program Files\Muser\Muser1000\”
- When Muser1000 install done, user can run this program

#5 Operation

#5.1 Software main figure



Connected UPS: indicator on express the corresponding UPS is online, indicator off express the corresponding UPS is offline.

Main monitor object: can select one UPS as main monitor object (only select online UPS), if the UPS is selected to main monitor object, figure not only will display states and alarms of this UPS in UPS states and alarms display area, but also can display real-time data information in real-time information display area.

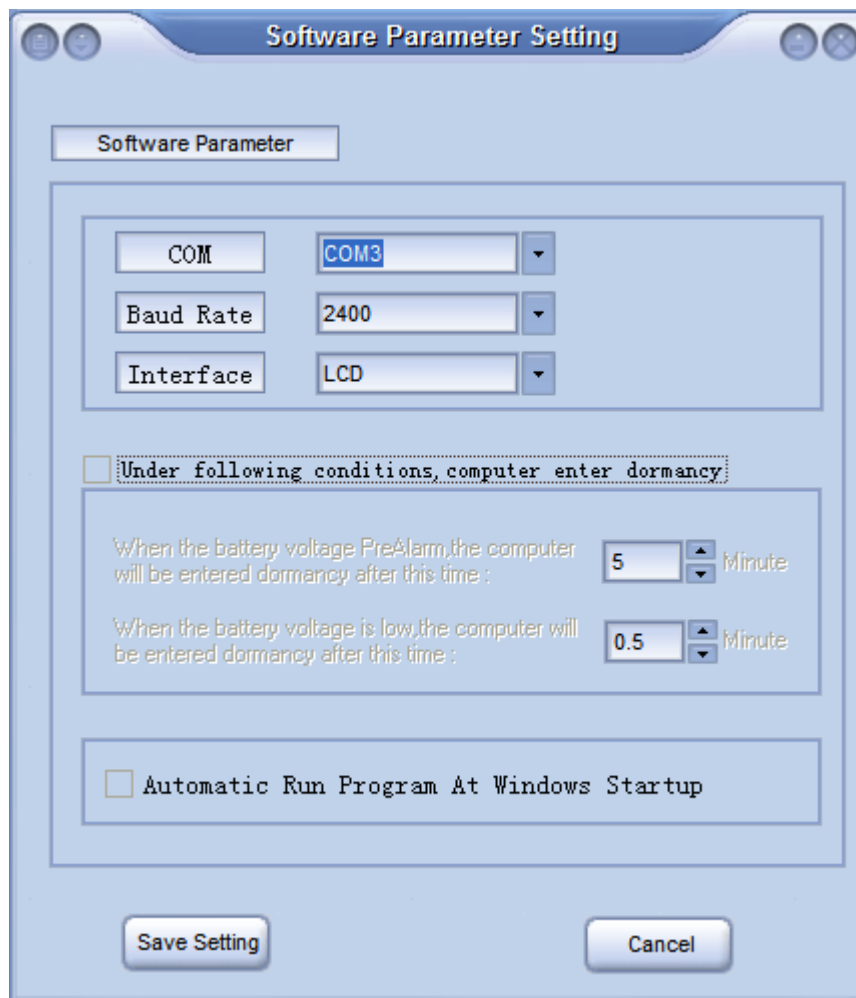
Real-time information display area: display the real-time information of main monitor UPS.

UPS parallel information area: display parallel information of all online UPS.

UPS states and alarms display area: display the latest states information and alarm information of all online UPS.

Light for showing the new alarms : used to remind user that some UPS have new alarm information, red light on express the corresponding UPS have new alarm information.

#5.2 Software parameter setting



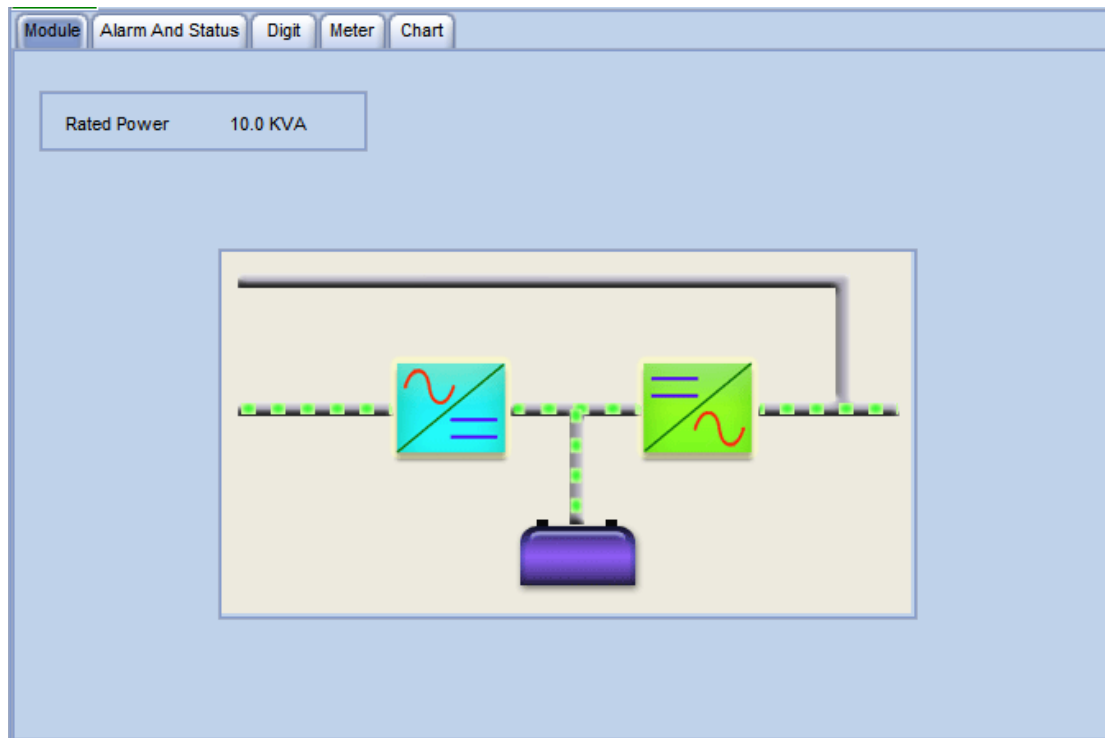
Software parameter setting:

- **COM:** select PC COM.
- **Baud rate:** set communication baud rate.
- **Interface:** UPS have 2 interfaces: LCD and monitor card, users must select interface by the actual connection.
- **Automatic run program at windows startup:** users can select if automatic run Muser1000 at windows startup or not.

#5.3 Real-time information display

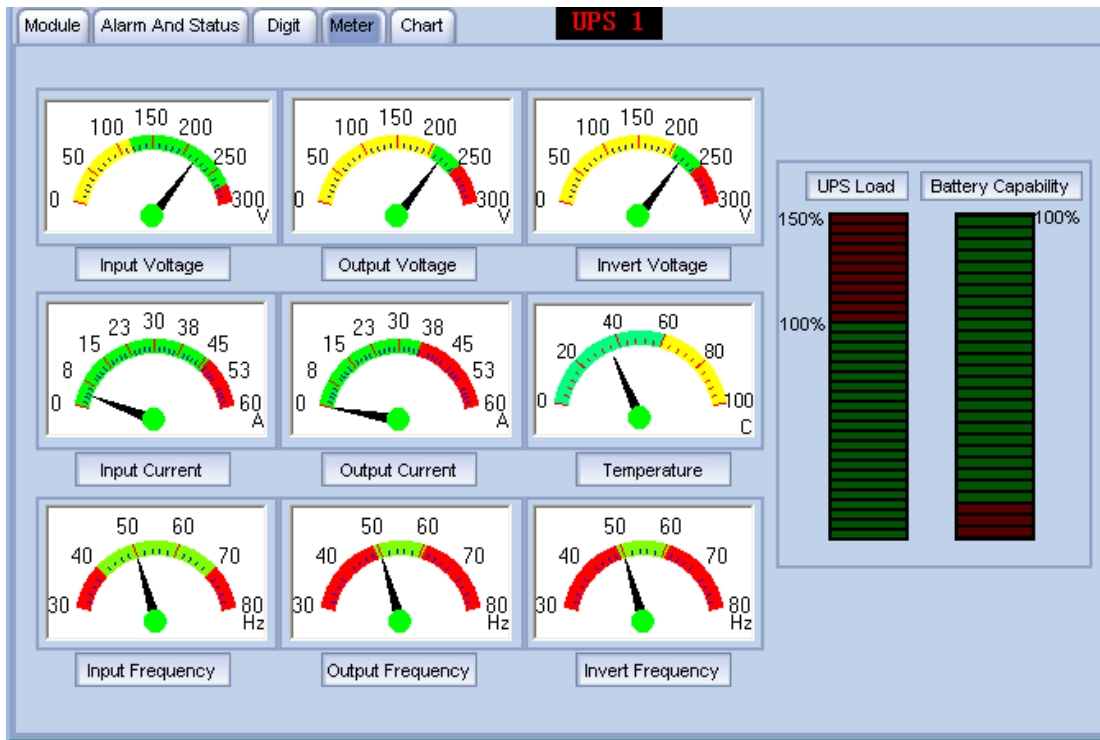
Users can watch the following figures in real-time information display area when PC construct connection to UPS:

Module



This figure displays the running states of main monitor UPS.

Meter



These figure displays some current data of main monitor UPS with meter.

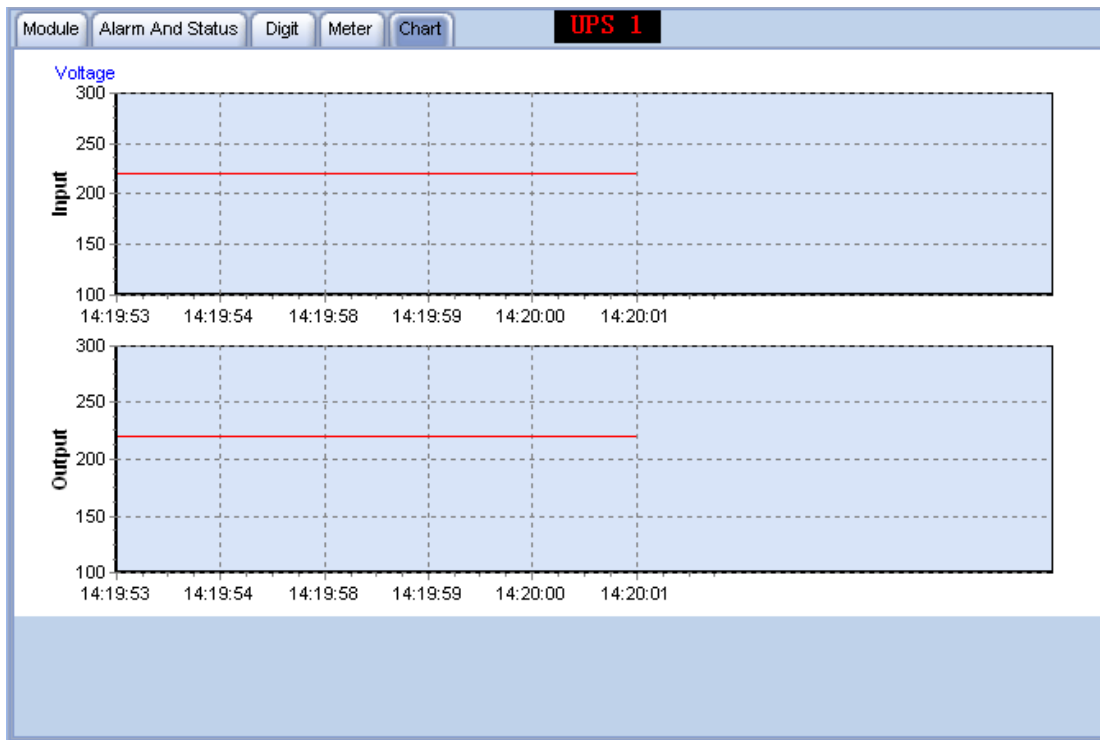
Digit

The 'Digit' module provides a detailed numerical view of the UPS system's status. It is divided into two main sections: Analog Data and Battery Data.

Analog Data			Battery Data		
	Value	Unit		Value	Unit
Input Voltage	220.9	V	Positive BUS Voltage	390	V
Input Current	4.0	A	Negative BUS Voltage	390	V
Input Power Factor	0.65		Battery Voltage	205	V
Input Frequency	50.0	Hz	Battery Current	1.0	A
Output Voltage	220.3	V	Battery Capability	0	%
Output Current	0.0	A	Support time of battery	0	minute
Load Percent	0	%			
Load Peak Rate	0.0				
Output Frequency	50.0	Hz			
Invert Voltage	219.7	V			
Invert Frequency	50.0	Hz			
Real Power	0.000	KW			
Apparent Power	0.000	KVA			
Temperature	35	°C			

This figure displays all current data of main monitor UPS with digit.

Chart



This figure displays variety of input voltage and output voltage of main monitor UPS with chart.

Alarm And Status

The screenshot shows the 'Alarm And Status' interface for 'UPS 1'. It features two main sections: 'Status Information' and 'Alarm Information'. The 'Status Information' section contains a list of 17 items with their current states. The 'Alarm Information' section is currently empty. At the bottom, there are two numerical displays: '005E 6048' and '0000 0000 0000 0000'.

Status Information		Alarm Information	
	Status Information	Index	Alarm Information
Rectifier Status	Work		
Input Power Supply Status	Mains supply		
Invert Open/Close Status	Power supply normally		
M-Bypass Switch Status	Opened		
Output Status	Invert Output		
EPO Activated	No		
Rectifier Limited Current	No		
battery charge	Yes		
battery boost charging	Yes		
Battery self test	No		
Coming to Interval transfer	No		
Inverter invalid due to over load	No		
UPS In shutdown Due To	No		
Parallel in Bypass	No		
Transfer Times-out	No		
Change master	Yes		

This figure will display status information and alarm information of main monitor UPS with list box.

#5.4 UPS rating parameter query and setting

Rated Parameter Of UPS 1

Work Mode	On-Line Mode	Bypass Frequency Range	5%
Parallel ID	1	Bypass Volt Upper Limit	15%
System Volt Level	220V	Bypass Volt Lower Limit	-45%
Output Frequency Level	50Hz	Invert Output Volt Fine	0%
Parallel Amount(1~15)	1	Switch Bypass Times(3~10)	9
Parallel Redundancy (0~14)	0		

Output Allow Forbid

Auto Startup Allow Forbid

Buzzer Enable Forbid

Battery Number	8	Battery Parallel Group(1~8)	1	Battery Boost
Boost Upper Limit Volt(V)	2.30V	Single Battery Capability(1~200AH)	7	<input checked="" type="radio"/> Allow <input type="radio"/> Forbid
EOD Volt(1.60~1.90V)	1.70	Float Base Volt(V)	2.20	Power Walk In
Battery Volt Low PreAlarm Time(1~32 minute)	5	LBS Setting	LBS Forbid	<input checked="" type="radio"/> Allow <input type="radio"/> Forbid

Select Query Modify **Save**

Rated Parameter Of UPS 1

Work Mode	On-Line Mode	Bypass Frequency Range	5%
Parallel ID	1	Bypass Volt Upper Limit	15%
System Volt Level	220V	Bypass Volt Lower Limit	-45%
Output Frequency Level	50Hz	Invert Output Volt Fine	0%
Parallel Amount(1~15)	1	Switch Bypass Times(3~10)	9
Parallel Redundancy (0~14)	0		

Output Allow Forbid

Auto Startup Allow Forbid

Buzzer Enable Forbid

Battery Number	8	Battery Parallel Group(1~8)	1	Battery Boost
Boost Upper Limit Volt(V)	2.30V	Single Battery Capability(1~200AH)	7	<input checked="" type="radio"/> Allow <input type="radio"/> Forbid
EOD Volt(1.60~1.90V)	1.70	Float Base Volt(V)	2.20	Power Walk In
Battery Volt Low PreAlarm Time(1~32 minute)	5	LBS Setting	LBS Forbid	<input checked="" type="radio"/> Allow <input type="radio"/> Forbid

Query

If you want to query UPS rating parameter, hit query option, all information is

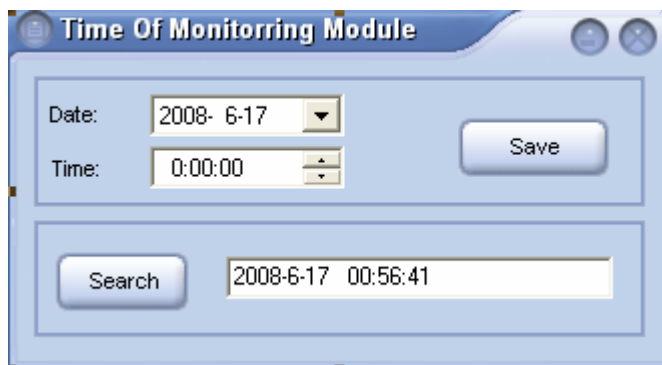
read-only in query mode, if you want set new rating parameter, select modify option and modify any parameter first, then hit save button.

Notice:

1: UPS be operated is the main monitor UPS when you query or modify, if you want query or modify other UPS, select UPS you want modify as the main monitor UPS first, then operate in this windows.

2: If communicate with monitor card, there is only query function and no modify function when open this windows.

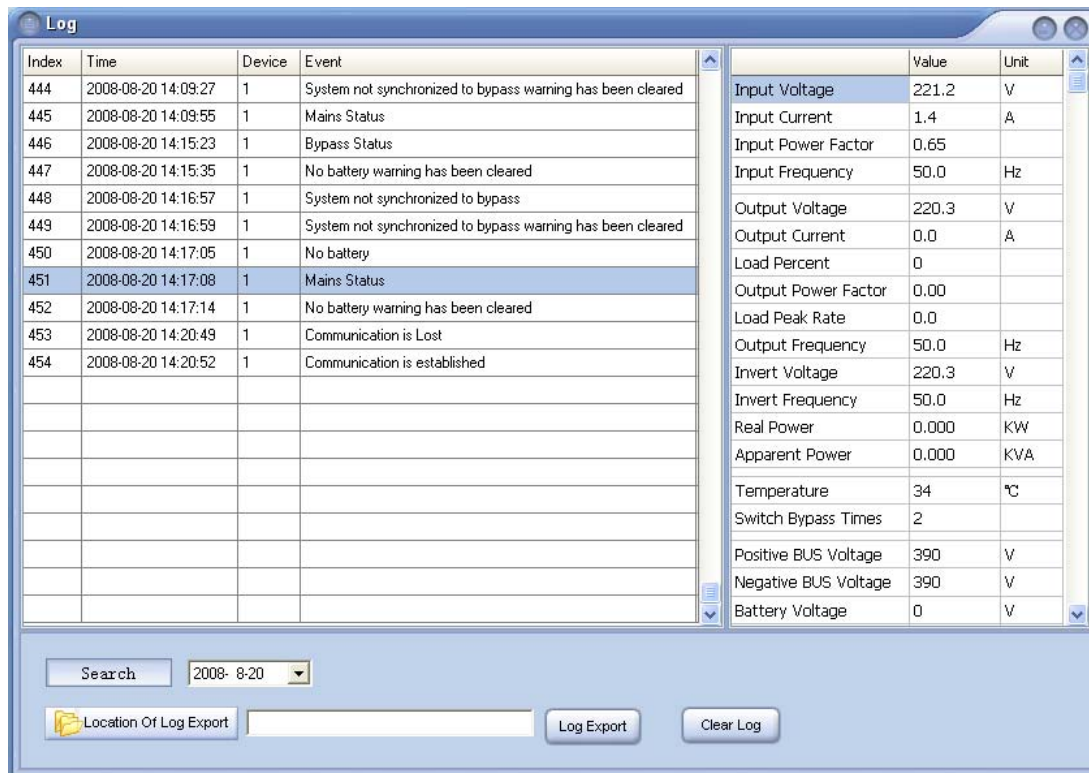
#5.5 Query and modify time of UPS monitor module



Users can query and modify date and time of UPS monitor module.

Notice: this function module is usable only when communicate with **monitor card**, there is no this function when communicate with **LCD**.

#5.6 Log query



The screenshot shows a window titled "Log" with two main panes. The left pane contains a table of log events, and the right pane displays a list of system parameters with their current values and units.

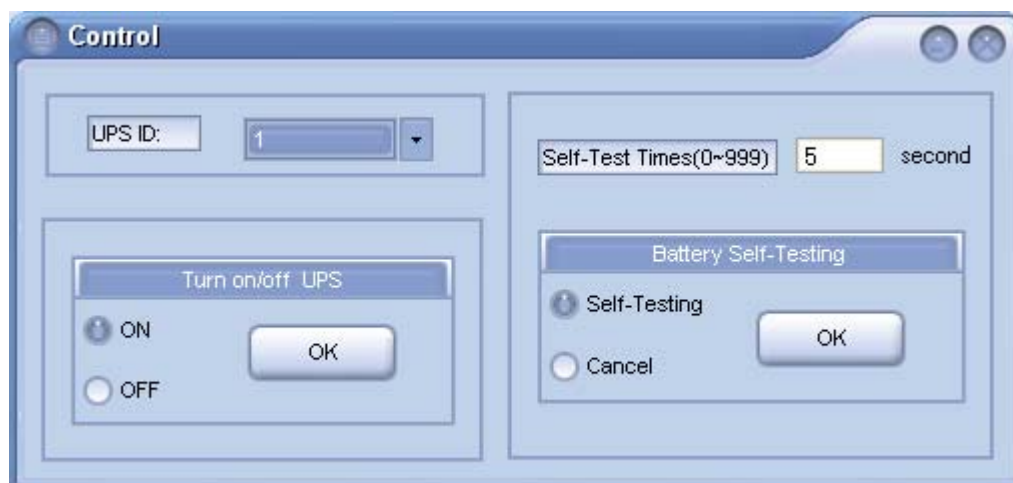
Index	Time	Device	Event
444	2008-08-20 14:09:27	1	System not synchronized to bypass warning has been cleared
445	2008-08-20 14:09:55	1	Mains Status
446	2008-08-20 14:15:23	1	Bypass Status
447	2008-08-20 14:15:35	1	No battery warning has been cleared
448	2008-08-20 14:16:57	1	System not synchronized to bypass
449	2008-08-20 14:16:59	1	System not synchronized to bypass warning has been cleared
450	2008-08-20 14:17:05	1	No battery
451	2008-08-20 14:17:08	1	Mains Status
452	2008-08-20 14:17:14	1	No battery warning has been cleared
453	2008-08-20 14:20:49	1	Communication is Lost
454	2008-08-20 14:20:52	1	Communication is established

Parameter	Value	Unit
Input Voltage	221.2	V
Input Current	1.4	A
Input Power Factor	0.65	
Input Frequency	50.0	Hz
Output Voltage	220.3	V
Output Current	0.0	A
Load Percent	0	
Output Power Factor	0.00	
Load Peak Rate	0.0	
Output Frequency	50.0	Hz
Invert Voltage	220.3	V
Invert Frequency	50.0	Hz
Real Power	0.000	KW
Apparent Power	0.000	KVA
Temperature	34	°C
Switch Bypass Times	2	
Positive BUS Voltage	390	V
Negative BUS Voltage	390	V
Battery Voltage	0	V

At the bottom of the window, there is a search bar with a date dropdown set to "2008- 8-20", a text field for "Location Of Log Export", and two buttons: "Log Export" and "Clear Log".

Users can see all events of UPS when open this windows, hit anyone event, the program will display simulate data when this event happen. Users can leach events by the date, when you select any day, the program will display all events in this day, users also can export all events of log.

#5.7 UPS control



The screenshot shows a window titled "Control" with several control panels. The top left panel has a "UPS ID:" label and a dropdown menu showing "1". The top right panel has a "Self-Test Times(0~999)" label and a text input field with "5" and the word "second". The bottom left panel is titled "Turn on/off UPS" and has two radio buttons: "ON" (selected) and "OFF", with an "OK" button. The bottom right panel is titled "Battery Self-Testing" and has two radio buttons: "Self-Testing" (selected) and "Cancel", with an "OK" button.

Users can select Turn on/off UPS, Battery self-testing, Cancel self-testing.
Select UPS ID you want to operate first. you must set self-testing time first when
select battery self-test.

Thanks for using this product !