



# **NuOutlet-LN**

# **User's Manual**

## Foreword

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## Revision History

Date	Version	History
2007/12/25	1.0	First version
2010/12/17	1.1	<ol style="list-style-type: none"><li>1. Change manual format accordingly.</li><li>2. Change NuOutlet-Win installation figures on page 14~15.</li><li>3. Change Device Control figure on page 32.</li></ol>

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# 1. NuOutlet-LN Packet Accessories

NuOutlet-LN comes with the following items to connect it to a DUT (Device under Test).

Accessory Image	Accessory Name	Description
	Cat. 5 cable	Connect this between the NuOutlet-LN and a RJ45 socket.
	Screwdriver	The screwdriver is supplied to help with turning the Chassis ID and Slot ID dials.
	Socket adaptor	Use the socket adaptor to change the female end of the short cable into an international socket. This is used to change the DUTs power connector.
	Short Power cable	The short power cable is attached to the outlet power socket of the NuOutlet-LN to attach the socket adaptor in to.
	Power cables	Plug into the inlet power of the socket of the NuOutlet-LN for use in corresponding countries.

Note: Socket adaptor and Short Power cable are not necessary and therefore not available in Taiwan, United States or Japan.

Here is an illustration of how a NuOutlet-LN is connected to the DUT.



## 2. Safety Instructions

### 2.1 Overload Protection

The NuOutlet-LN is fitted with 3 levels of protection to prevent the device being damaged in the event of voltage changes.

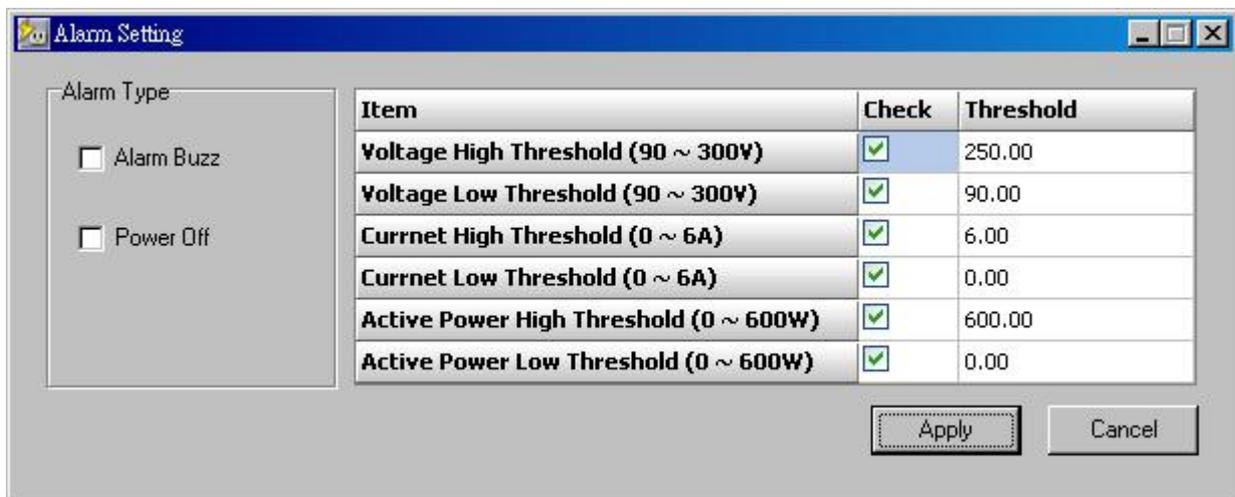
1. Software
2. Internal breaker
3. Power Fuse

#### 2.1.1 Software

The NuOutlet-LN Software allows the NuOutlet-LN to switch off if it exceeds the set thresholds.

To set the alarm threshold:

1. Open **NuDiscover > Discover > Configure**.
2. **NuOutlet-LN Window > Report > Alarm Setting**.



Item	Check	Threshold
Voltage High Threshold (90 ~ 300V)	<input checked="" type="checkbox"/>	250.00
Voltage Low Threshold (90 ~ 300V)	<input checked="" type="checkbox"/>	90.00
Currnet High Threshold (0 ~ 6A)	<input checked="" type="checkbox"/>	6.00
Currnet Low Threshold (0 ~ 6A)	<input checked="" type="checkbox"/>	0.00
Active Power High Threshold (0 ~ 600W)	<input checked="" type="checkbox"/>	600.00
Active Power Low Threshold (0 ~ 600W)	<input checked="" type="checkbox"/>	0.00

Click on the check boxes to include the alarm.

Manually enter the threshold value. The maximum and minimum threshold values are next to the item names.

The alarm can either be audible or can switch off the device. Check **Alarm Buzz** for an audible alarm or check **Power Off** to switch off the device.

### 2.1.2 Internal Breaker

The NuOutlet-LN is fitted with a breaker switch that will be activated when outlet power shortage occurs.

### 2.1.3 Power Fuse

On the left of the device is a power socket, this socket contains a fuse. Use a flat head screw driver to leave the fuse holder out and replace with a 250V/25Amp fuse.

## 2.2 Booting/Startup Time

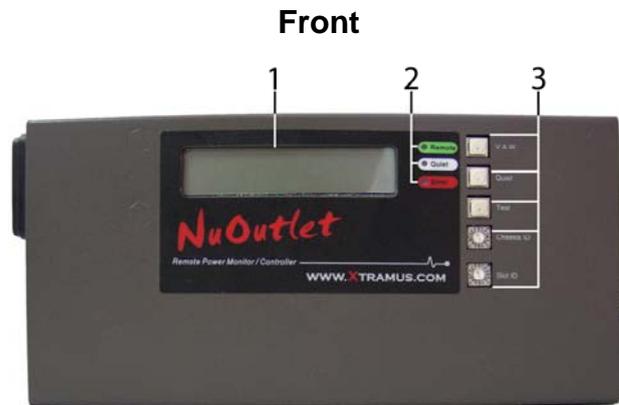
Please run tests only after starting up NuOutlet-LN for at least 30 minutes for its best accuracy. And also keep the environment in constant temperature during tests.

### 3. Product

#### 3.1 Description

The NuOutlet-LN is designed for the collection of power parameters such as Vrms, Irms, active power, power factor, peak voltage and peak current. These parameters can be checked and analyzed directly from the outlet power of NuOutlet-LN or remotely across a network. The Outlet Power function can be controlled directly or remotely across a network.

Below is a description of the functionality:



#### 1. LCD Display



The LCD display displays the status of the NuOutlet-LN, the following information can be displayed: Power (Watts), Current (Amps), Voltage, Temperature (°C), Power Factor and AC Frequency (Hz). IP address and Error codes are also displayed during performance tests.

#### 2. LED Lights

- a) **Remote** – Turns bright green when remote login is successful. Flashes green when **Flash Device** is pressed on the NuDiscover application.
- b) **Quiet** – Turns bright green when pressing the quiet button; this silences the audible alarm.
- c) **Error** – Yellow when an error occurs.

### 3. Configuration Buttons

- a) **V.A.W.** – Press this button to switch the display between Volts, Amps and Watts and current operating temperature.
- b) **Quiet** – (i) Silences the audible alarm.  
(ii) Restores the default factory settings to **DHCP IP** mode. Press **Quiet** to set DHCP mode and restore factory settings when Chassis ID and Slot ID are both turned to F.
- c) **Test** – (i) Tests the alarm and LCD display. (Auto test: shows chassis ID/ slot ID, all version numbers and current IP address)



Auto test starts and LCD flashes,



first, chassis ID and slot ID display,



then all version numbers display,



DHCP displays,

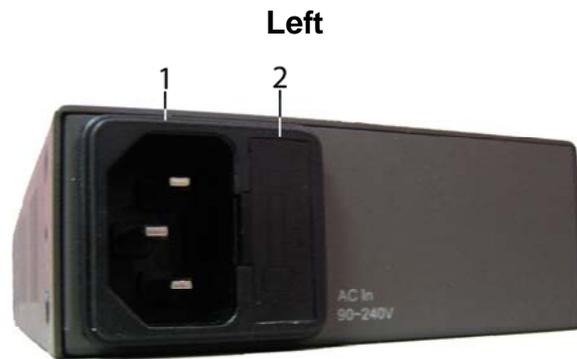


and complete current DHCP IP address displays at last.

- (ii) Restore default factory settings to **Static** IP mode. Press **Test** to view the

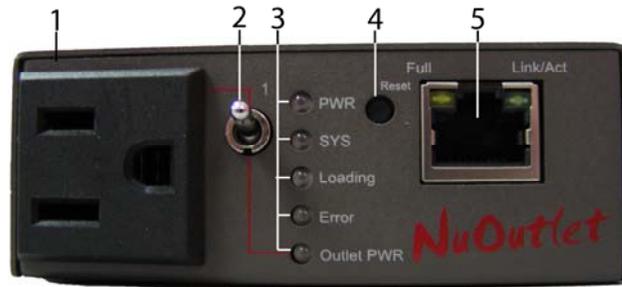
static IP "192.168.1.8" on the LCD and restores factory settings when Chassis ID and Slot ID are both turned to F.

- d) **Chassis ID** – Identify the device belonging to a specified NuStreams series on the network, the range is #0~#E.
- e) **Slot ID** – Identify which slot the specified NuStreams series device is in; the range is #0~#E.



- 1. **Power Inlet** – Plug the supplied power cable into this socket.
- 2. **Fuse Holder** – Holds a 250V/25Amp fuse which will blow if the current is exceeded.

## Right



1. **Outlet Power Supply** – Plug in the power supply of the Device Under Test (DUT). The power supply can be switched on and off either through switch or remotely across the network.
2. **Outlet Switch** – Switches the outlet power on/off.
3. **LED Lights**
  - a) **PWR** – Green when the NuOutlet-LN has power.
  - b) **SYS** – Flashes green when the system is enabled.  
Dark or Bright green means the system is abnormal.
  - c) **Loading** – Flashes green when a load is in the Outlet socket.  
The higher the load, the faster the flashing.
  - d) **Error** –Bright yellow when there is a short circuit or an error occurs.
  - e) **Outlet PWR** –Bright green when the Outlet Power is on.
4. **Reset button** – Use a pointed object to reset the NuOutlet-LN to reboot the system with the last saved configuration.
5. **RJ45 10/100 Mb connector** – Insert a category 5 cable into this socket.
  - a) **Full** – Bright orange when fully duplex.
  - b) **Link/Act** – Bright green when linked. Flashes green when transmitting and receiving data.

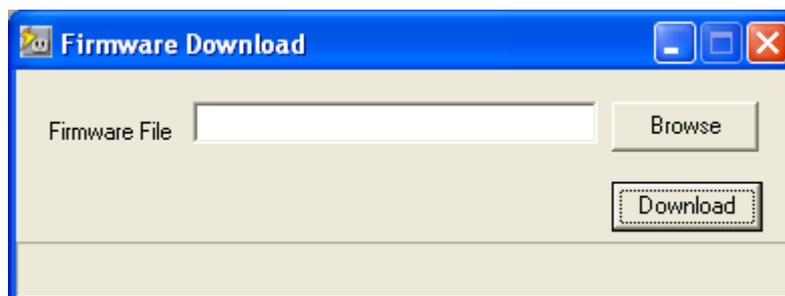
## 3.2 Upgrading Firmware

The firmware of the NuOutlet-LN can be updated by following the instructions below:

1. Check the hardware version **Help > About > Hardware Version**.



2. Check <http://www.xtramus.com> to see if updates are available.
3. Click on the File name to download and save it to the required directory.
4. Go to **NuOutlet-LN Window > TFTP > Download Firmware**.



5. Click on **Browse** to locate the downloaded file and click **Download** to install the firmware.

## 4. Software

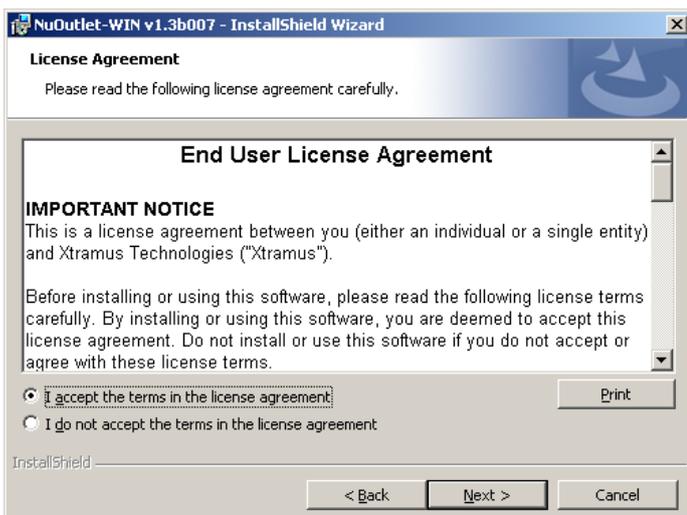
### 4.1 Installation

To configure the NuOutlet-LN, it is best to install the configuration software. Follow the instructions below:

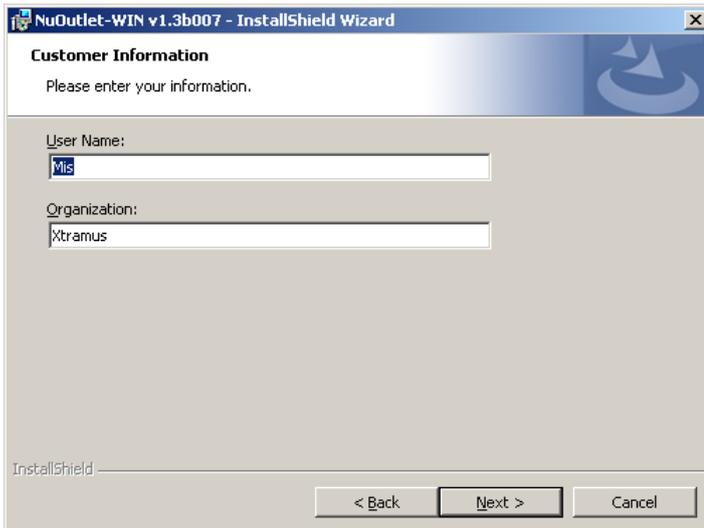
1. Insert the installation CD into the CD-ROM drive of the computer.
2. Follow the on-screen instructions and the images below.



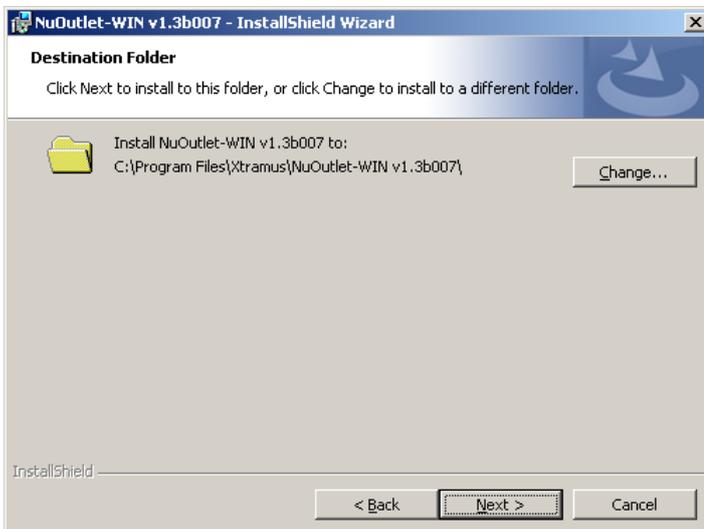
Click **Next** to start installation.



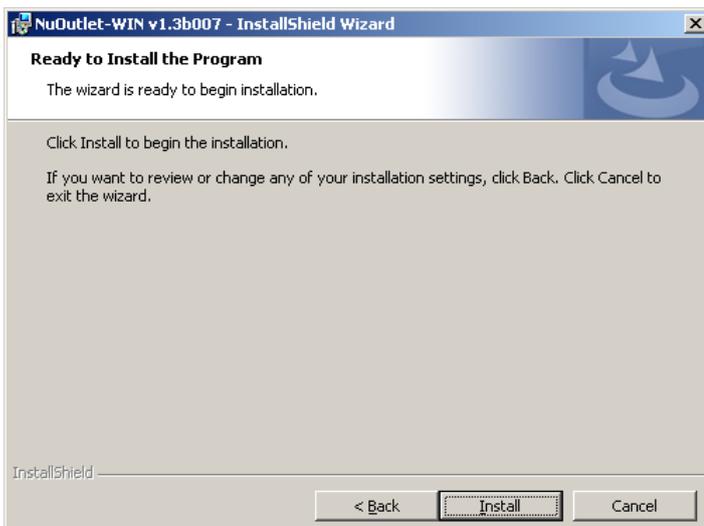
1. Click the radio button to accept the license agreement.
2. Click **Next** to insert the Customer Information.



1. Enter the User Name and Organization.
2. Click the radio button to select current user or all users.
3. Click **Next** to continue.



Click **Change** if you would like to change NuOutlet-WIN's installation path, or click **Next** to continue.

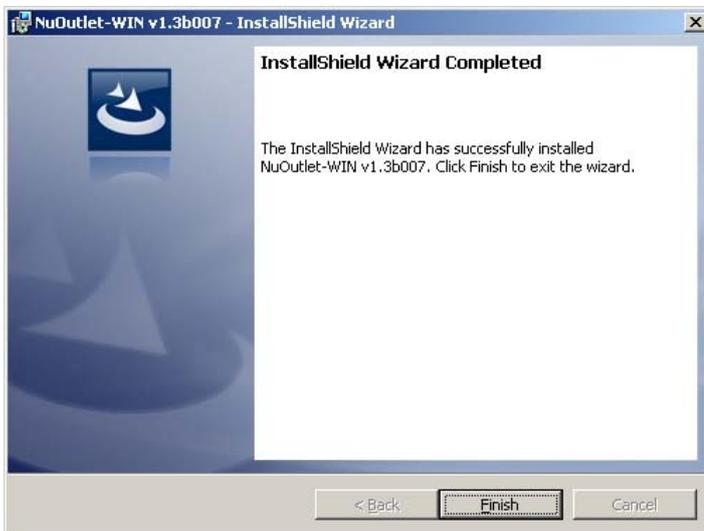


Click **Install** to continue the installation.

The installation screen is displayed.



Once installation is finished, the following screen is displayed. Click **Finish** to close the window.

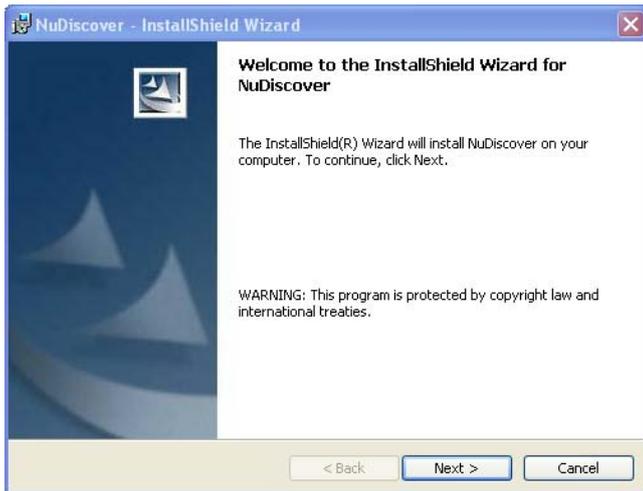


Two applications are installed, **NuDiscover** and **NuOutlet-LN Window**. NuDiscover is used to recognize connected devices and NuOutlet-LN is used to configure the devices. The icons for these devices are installed on the Windows desktop and in **Programs > Xtramus > NuDiscover**.

## 4.2 Uninstalling

If applications do not work correctly, it may be necessary to uninstall them.

1. Insert the installation CD into the CD-ROM drive of the computer.
2. Follow the on-screen instructions and the images below.

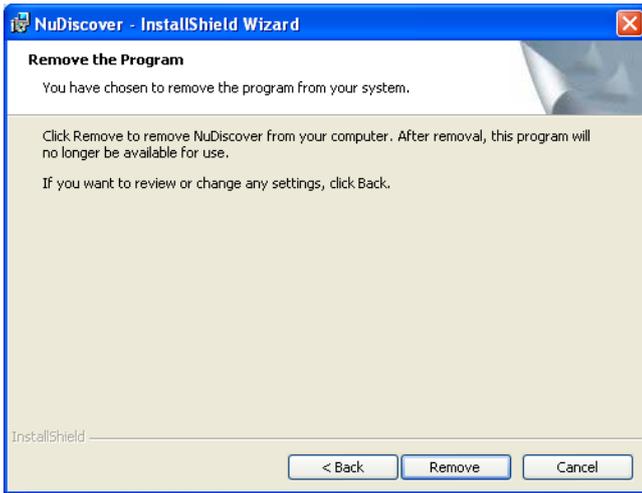


Click **Next** to start installation.



**Modify** – There are no modifications to be made with the installation. If press **Next** by mistake, press **Back** to return to this screen.

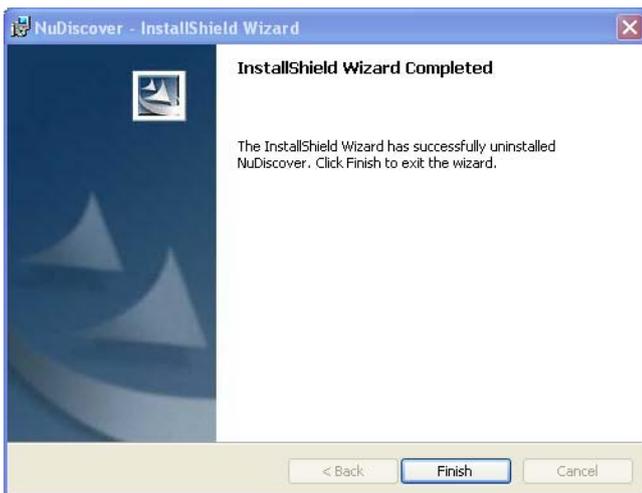
**Remove** – Click this radio button and then press **Next** to go to the next screen.



Press **Remove** to uninstall the applications.



The uninstallation is in progress.



Once uninstallation is finished the following screen is displayed. Press **Finish** to close the window.

## 4.3 Updating Software

Periodically Xtramus may update the NuDiscover and NuOutlet-LN Window software.

1. Before installing a new version of the software, the previous version must be uninstalled. Go to **Start > Programs > Xtramus > NuDiscover > Uninstall**.
2. Download the software from <http://www.xtramus.com>.

From the directory the software has been saved to, click NuDiscover Setup and follow the instructions above.

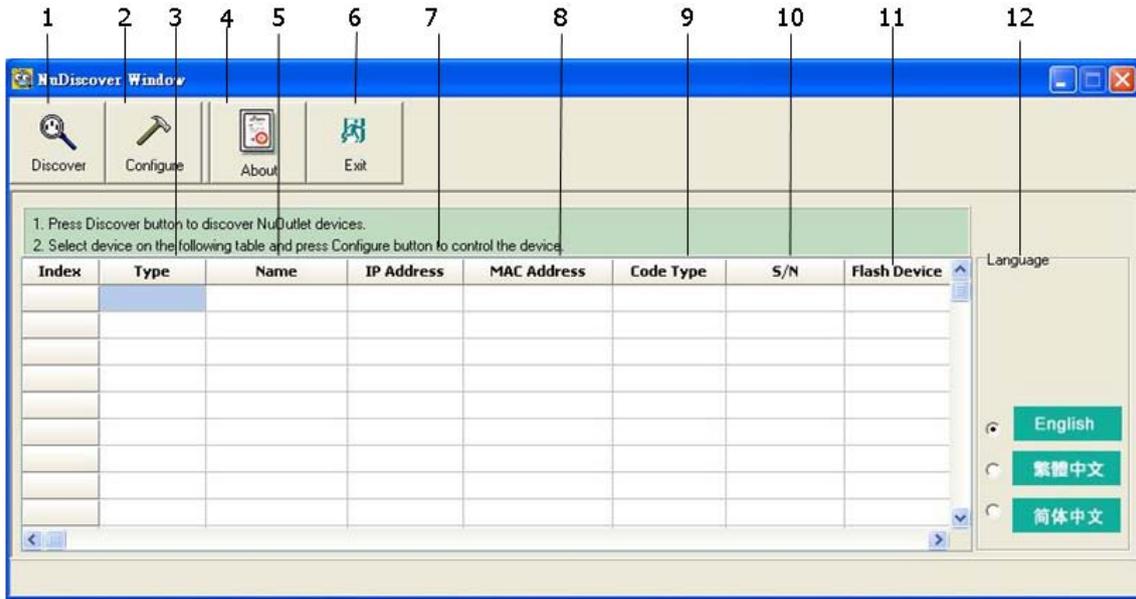
## 5. Basic Usage

### 5.1 NuDiscover

There are two ways to connect to the NuOutlet-LN:

- 1 – Directly through the NuOutlet-LN window if the IP address of the NuOutlet-LN is known.
- 2 – Through the NuDiscover application to find all NuOutlet-LN's connected to the network.

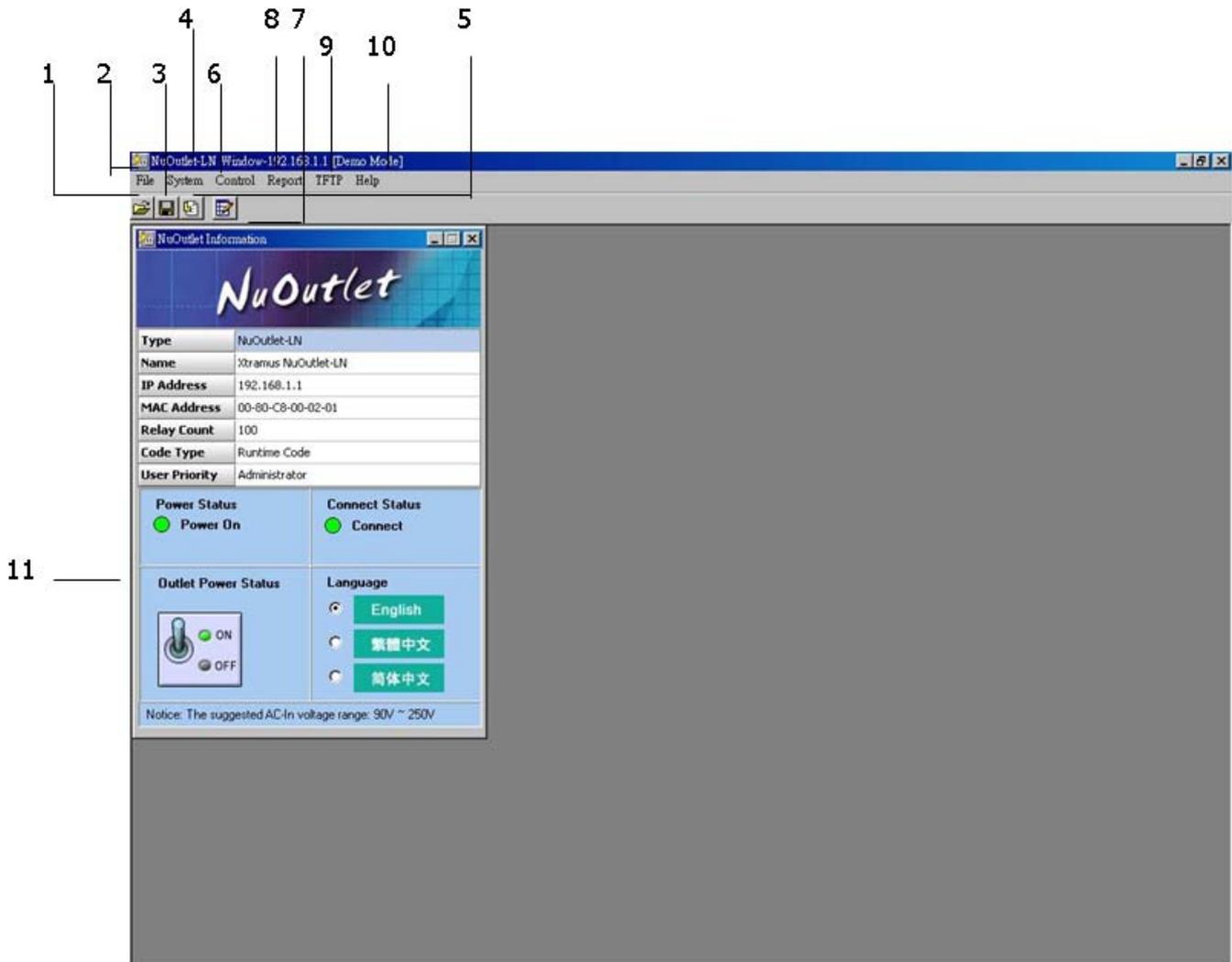
When using the NuOutlet-LN, the first application to use is NuDiscover. This is used to find devices and connect to them.



1	<b>Discover</b> – Look for devices.	7	<b>IP Address</b> – The IP address of the connected device.
2	<b>Configure</b> – Click to configure the selected device.	8	<b>MAC Address</b> – Display the MAC address of the connected device.
3	<b>Type</b> – The type of device connected.	9	<b>Code Type</b> – Display the firmware type of the device
4	<b>About</b> – Display details of the NuDiscover Window Version, Release Date and NuDiscover API version.	10	<b>S/N</b> – Display the serial number of the connected device.
5	<b>Exit</b> – Quit NuDiscover.	11	<b>Flash Device</b> – Click to flash the selected device, the “Remote” LED will flash. This is particularly useful when more than one device is being used.
6	<b>Name</b> – Name of the connected device.	12	<b>Language</b> – Options of language interface.

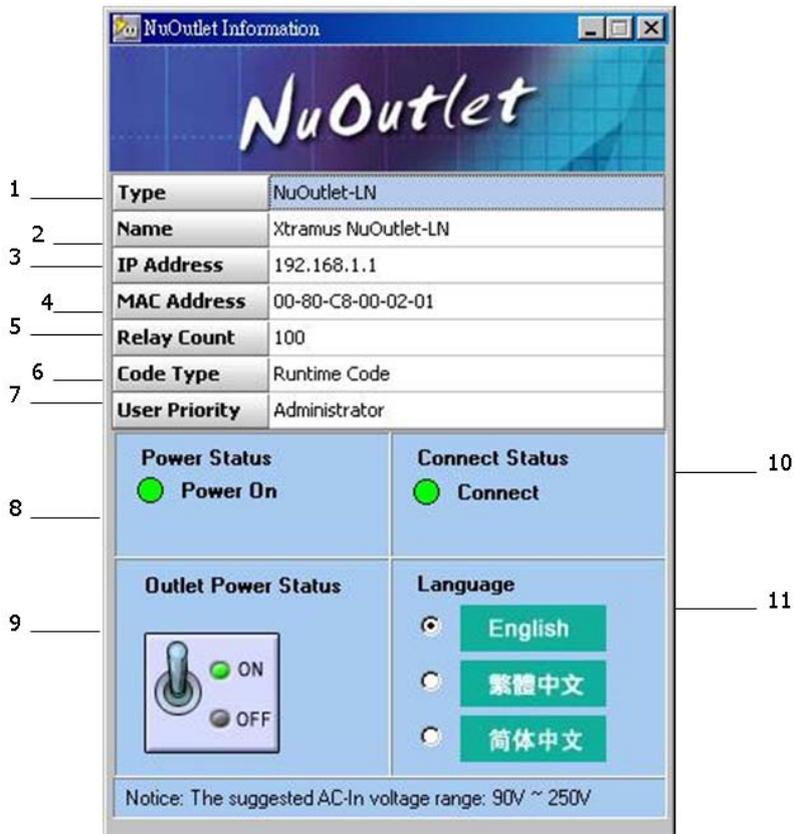
## 5.2 NuOutlet-LN Window

The NuOutlet-LN Window is used to configure all NuOutlet-LN devices



1	<b>Open</b> – Open saved configuration (.cfg) files.	7	<b>Counter Chart</b> – Display the counter chart.
2	<b>File</b> – Load and Save Configuration files, load log file and exit the program	8	<b>Report</b> – Interval setting, Show statistics, Alarm setting and Alarm report.
3	<b>Save</b> – Save configuration (.cfg) files.	9	<b>TFTP</b> – Download Firmware.
4	<b>System</b> – Set device name, Set IP configuration, Set user name and password and reset to factory default.	10	<b>Help</b> – Help and about.
5	<b>Open Log Files</b> – Open log (.csv) files.	11	<b>NuOutlet-LN Information</b> – Display information on the connected device.
6	<b>Control</b> – Device control and Chart color setting.		

### 5.3 NuOutlet-LN Information



1	<b>Type</b> – The type of device connected.	7	<b>User Priority</b> – Display who is logged in Administrator or Guest.
2	<b>Name</b> – Name of the connected device	8	<b>Power Status</b> – Turn green when the on/off switch is switched on. Yellow when cycle reboot. Grey when switched off.
3	<b>IP Address</b> – The IP address of the connected device.	9	<b>Outlet Power Status</b> – When the on/off switch is switched on this image moves to <b>ON</b> and green, when the switch is turned off this image moves to <b>OFF</b> and red.
4	<b>MAC Address</b> – Display the MAC address of the connected device.	10	<b>Connect Status</b> – Turn green when the device is connected, grey when disconnected.
5	<b>Relay Count</b> – Display the number of times the outlet power being turned on and off automatically or manually.	11	<b>Language</b> - Options of language interface.
6	<b>Code Type</b> – Display the firmware type of the device.		

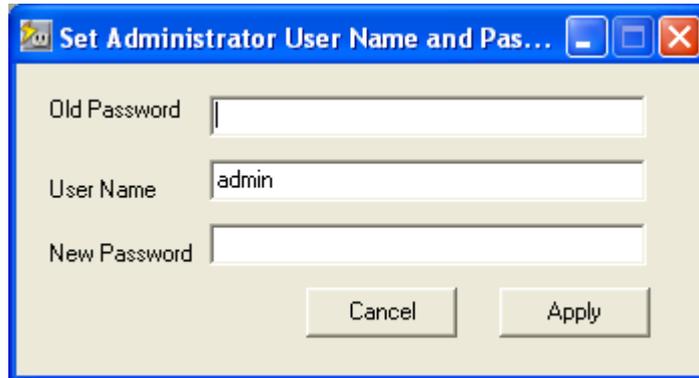
## 5.4 Username and Password

The NuOutlet-LN comes with 2 available user settings:

1. **Administrator** – Gives full read and write access to the NuOutlet-LN. **Default username = admin, default password = admin (all lower case).**
2. **Guest** – Gives read only access to the NuOutlet-LN. **Default username = guest, default password = guest (all lower case).**

To change the password, follow the instructions below:

1. **Press System > Set User Name and Password > Admin / Guest** to see the following window.



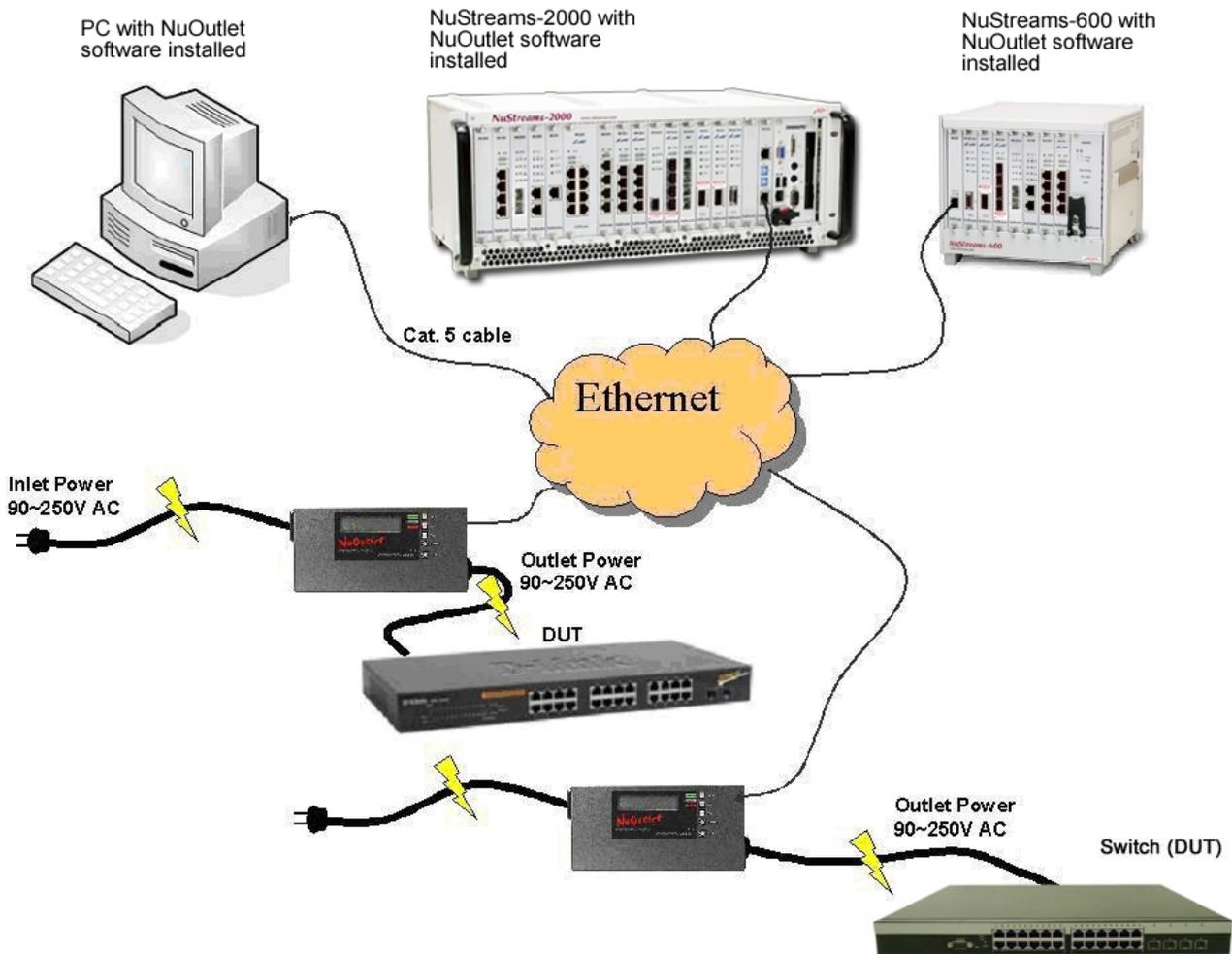
2. Enter the **Old password**.
3. Enter the **New password**.
4. Press **Apply**.

Repeat the above instructions for changing the guest password.

## 6. Connecting the Device

### 6.1 Cable Connection

The NuOutlet-LN connects directly to the DUT. Follow the instructions below to ensure correct connection.



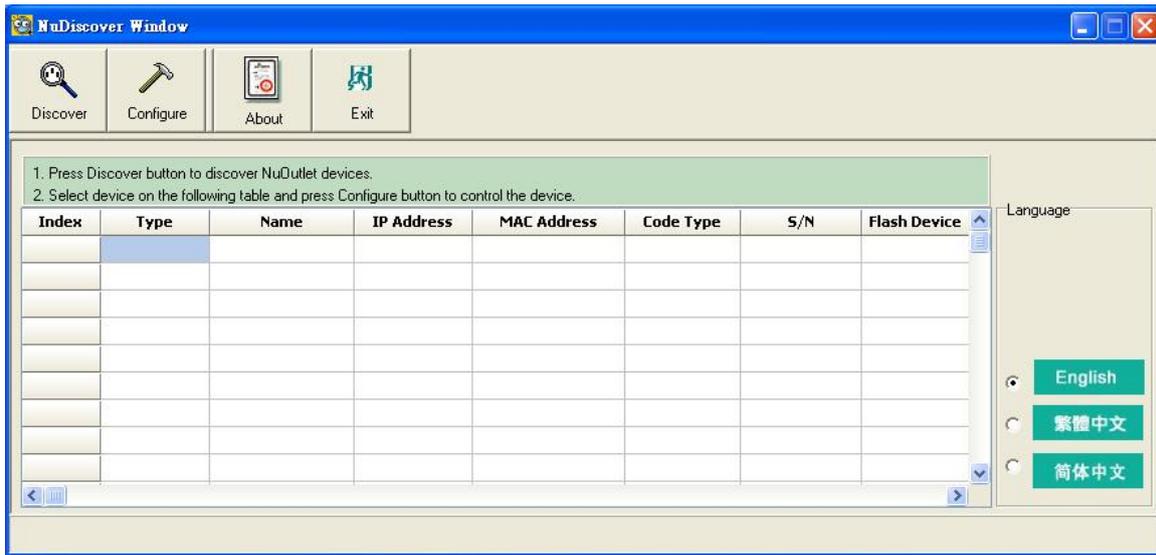
1. Connect the NuOutlet-LN to the main power supply using the cable provided.
2. Connect a Cat. 5 cable and optional power cable from the NuOutlet-LN to the DUT.
3. Ensure that a computer is connected to the NuOutlet-LN and the NuOutlet-LN software is installed.

## 6.2 Discovering Devices

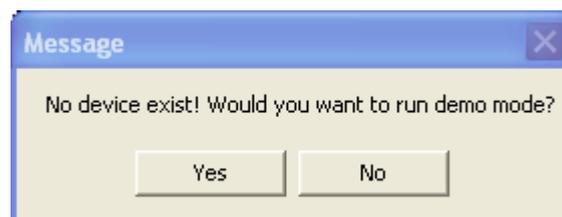
To start configuring devices, they must first be discovered; to do this, follow the instructions below:



1. Start the **NuDiscover** application from either the desktop icon  or from **Start > Programs > Xtramus > NuDiscover > NuDiscover**.



2. Press the **Discover** button. The NuOutlet-LN will search for available devices. If no available devices are found, the following message will be displayed.



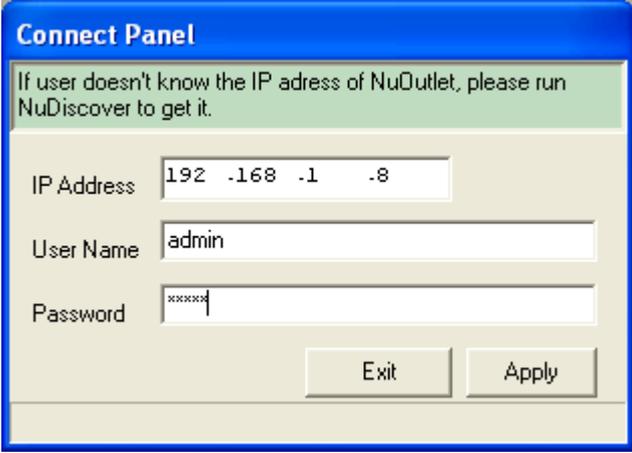
3. Click **Yes** to list a simulated version of a DUT or press **No** to close the message window and try again.
4. If a device is listed, press **Configure** to open the NuOutlet-LN Window application.

## 7. Functions

### 7.1 Setting IP address

Each NuOutlet-LN is pre-configured with the following IP address [192.168.1.8]. To change this address, follow the instructions below:

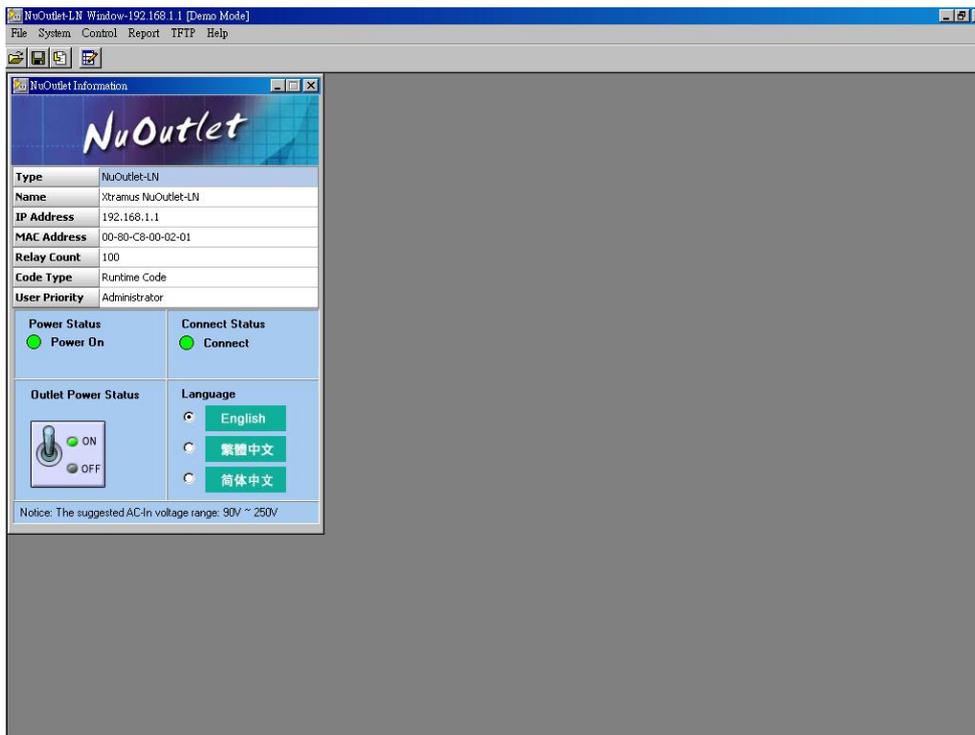
1. Load the NuOutlet-LN Window application from either the desktop icon  or **Start > Programs > Xtramus > NuDiscover > NuOutlet-LN.**



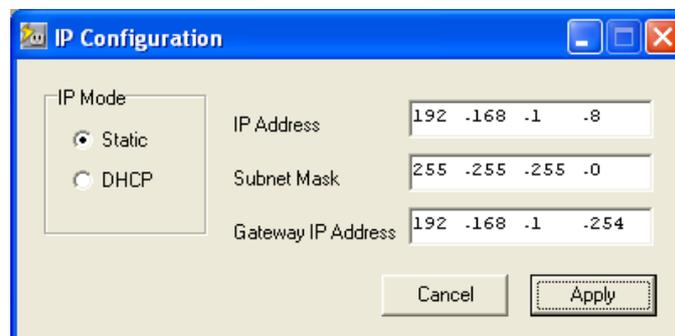
The image shows a Windows-style dialog box titled "Connect Panel". It has a blue title bar and a light beige background. At the top, there is a green message box that says "If user doesn't know the IP address of NuOutlet, please run NuDiscover to get it." Below this, there are three input fields: "IP Address" with the text "192 .168 .1 .8", "User Name" with the text "admin", and "Password" with the text "xxxxx". At the bottom right, there are two buttons: "Exit" and "Apply".

2. Enter the Administrator **User Name** (default is admin) and **Password** (default is admin) and press **Apply**.

3. Once logged in, the following screen will be displayed.



4. Press **System > Set IP Configuration** and the following window is displayed.



Choose between **Static** and **DHCP**. If choosing Static, enter the new IP address in the **IP address** section. Ask the network administrator for further details on configuring the **Subnet Mask** and **Gateway IP Address**.

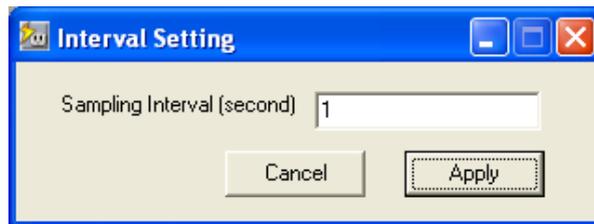
5. Press **Apply** to confirm the new details.

## 7.2 Reporting

### 7.2.1 Interval Setting

Intervals are the times between the points where data is gathered from the DUT. To access the Interval Setting window, follow the instructions below.

1. Press **Report > Interval Setting**:



2. Enter the time (in seconds) between samples and press **Apply**.

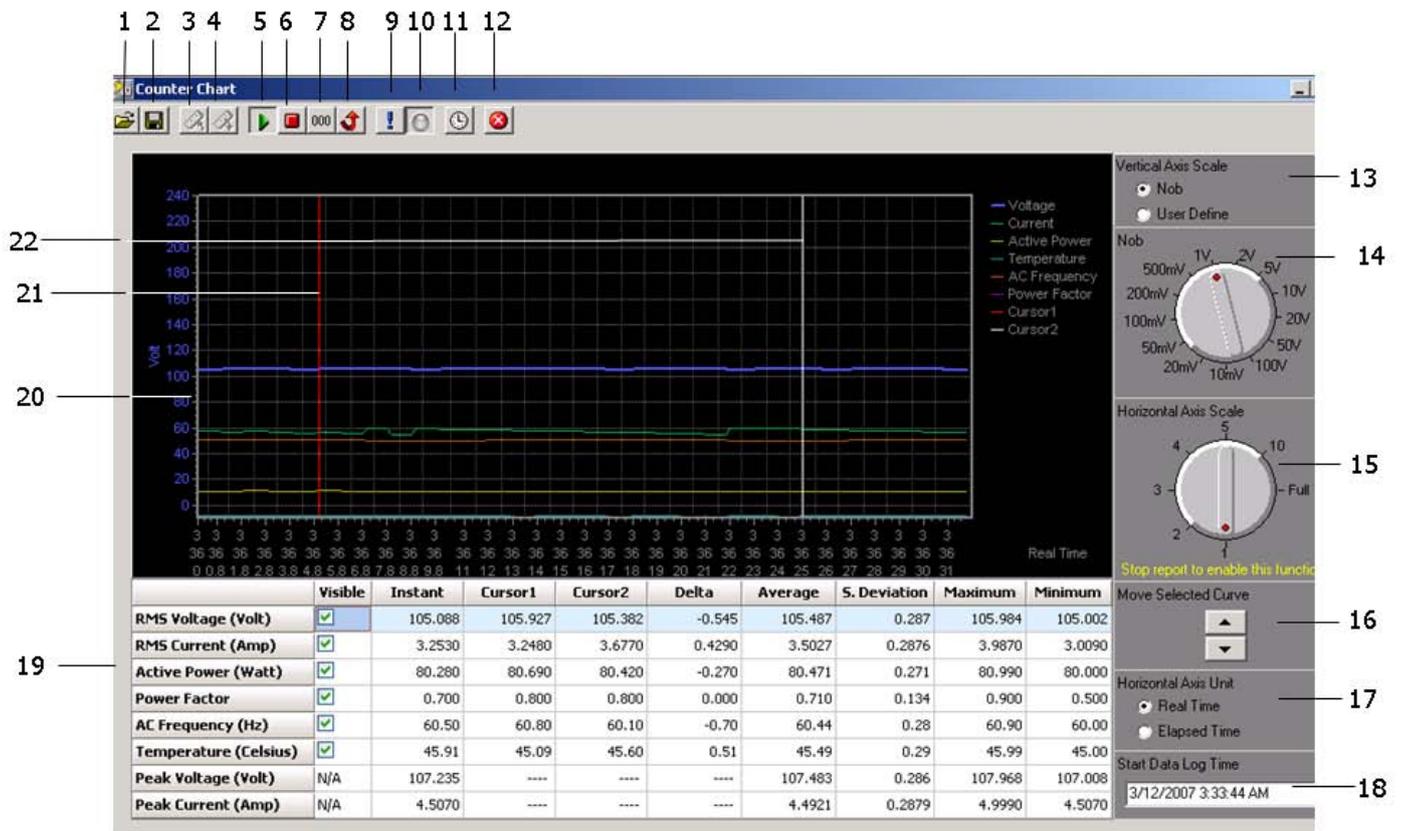
The interval is displayed on the Statistics screen.

## 7.2.2 Show Statistics

The statistics screen is the most important screen in the NuOutlet-LN application. It displays all information gathered from the DUT.

The following screen is shown by either:

1. Press **Report > Show Statistics**.
2. Press **Show Statistics** icon .

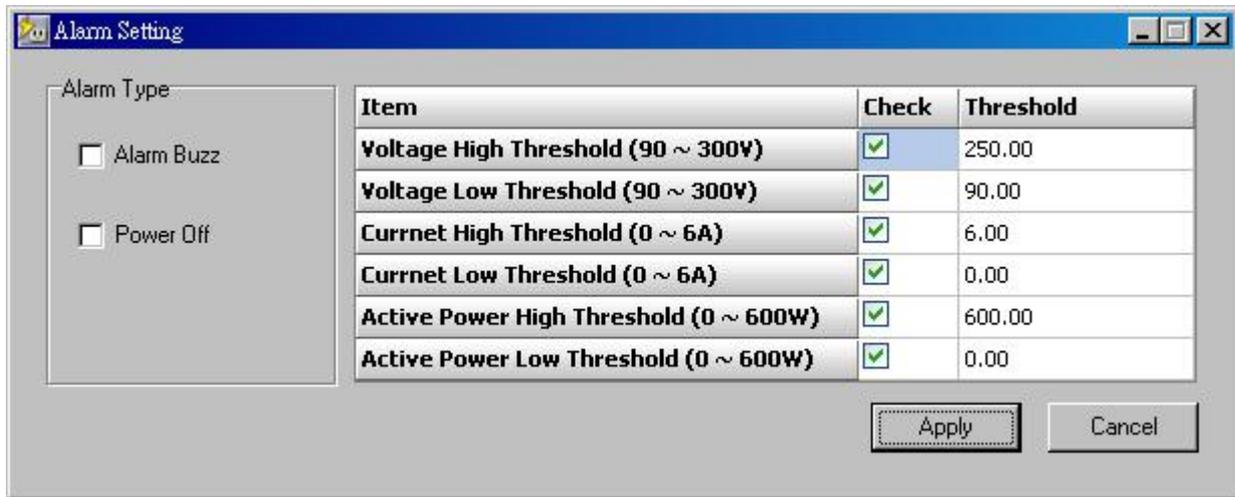


1	<b>Open</b> – Open previously saved log files in chart format	12	<b>Exit</b> – Quit the counter chart
2	<b>Save</b> – Save files in .csv format to be opened in either NuOutlet-LN or a spreadsheet application	13	<b>Vertical Axis Scale</b> – options of Nob to turn manually or user- defined scale with extended dialogue to define.
3	<b>Load Scale File</b> – Load previously saved scale files in .scl format	14	<b>Nob</b> – Zoom in and out of the chart (Default 1V)
4	<b>Save Scale File</b> – Save scale files in .scl format	15	<b>Horizontal Axis Scale</b> – Zoom in/out of the horizontal axis. (Default 1)
5	<b>Play</b> – Start data reception from the NuOutlet-LN	16	<b>Move Selected Curve</b> – Select a power measurement (see below) and chooses to move it up or down
6	<b>Stop</b> – Stop data reception from the NuOutlet-LN	17	<b>Horizontal Axis Unit</b> – Choose whether to use Real Time or Elapsed Time
7	<b>Clear Data Log</b> – Clear all information from the chart	18	<b>Start Data Log Time</b> – Display the current date and time
8	<b>Reset Chart</b> – Reset chart information to default settings	19	<b>Power Measurements</b> – Choose power parameters displayed on the screen.
9	<b>Refresh Alarm</b> – Turn the alarm off	20	<b>Graph</b> – Display the captured information
10	<b>Alarm Light</b> – Turn red when the alarm has been activated	21	<b>Cursor 1</b> – A cursor used as an indicator to help users gather the related power parameters they are interested in
11	<b>Set Save Interval</b> – Automatically save current data at specified intervals	22	<b>Cursor 2</b> – Another cursor also used as an indicator to help gather extra set of power parameters.

A more detailed explanation of the above information is given below.

## 7.2.3 Alarms

### Alarm Setting



Item	Check	Threshold
Voltage High Threshold (90 ~ 300V)	<input checked="" type="checkbox"/>	250.00
Voltage Low Threshold (90 ~ 300V)	<input checked="" type="checkbox"/>	90.00
Current High Threshold (0 ~ 6A)	<input checked="" type="checkbox"/>	6.00
Current Low Threshold (0 ~ 6A)	<input checked="" type="checkbox"/>	0.00
Active Power High Threshold (0 ~ 600W)	<input checked="" type="checkbox"/>	600.00
Active Power Low Threshold (0 ~ 600W)	<input checked="" type="checkbox"/>	0.00

When the alarm is activated, it can either emit a sound or, if the device is powered by the NuOutlet-LN, switch the device off. Follow the instructions below to decide which to use:

1. Press **Report > Alarm Setting**.
2. Click in either **Alarm Buzz** for an audible alert or **Power Off** to switch off the device.
3. To silence the alarm, press the Quiet button on the NuOutlet-LN.

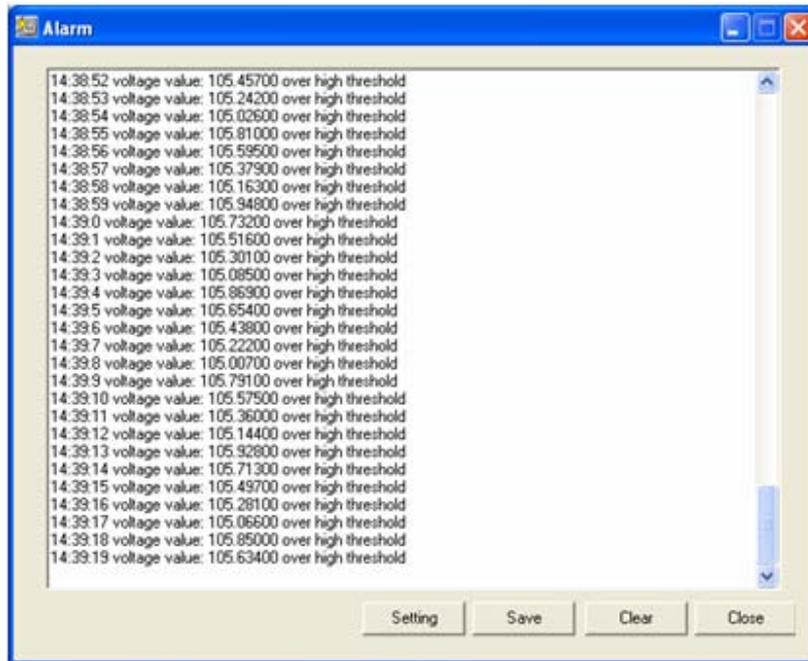
**Note:** Power Off is only functional if the device is powered by the NuOutlet-LN.

For any measured event, an alarm can be set. To change the alarm threshold values, follow the instructions below:

1. Press **Report > Alarm Setting**.
2. To ensure that an event is being monitored, press the **Check** box.
3. To set a value that triggers the alarm, type that value into the **Threshold** field. The minimum and maximum values are given next to the item name.
4. Press the **Apply** button to activate.

## Alarm Report

When the alarm is detected, a report is generated; an example is shown below.



Alarm setting could be carried out by pressing **Setting** button, then Save Alarm Setting window will popup as shown below.

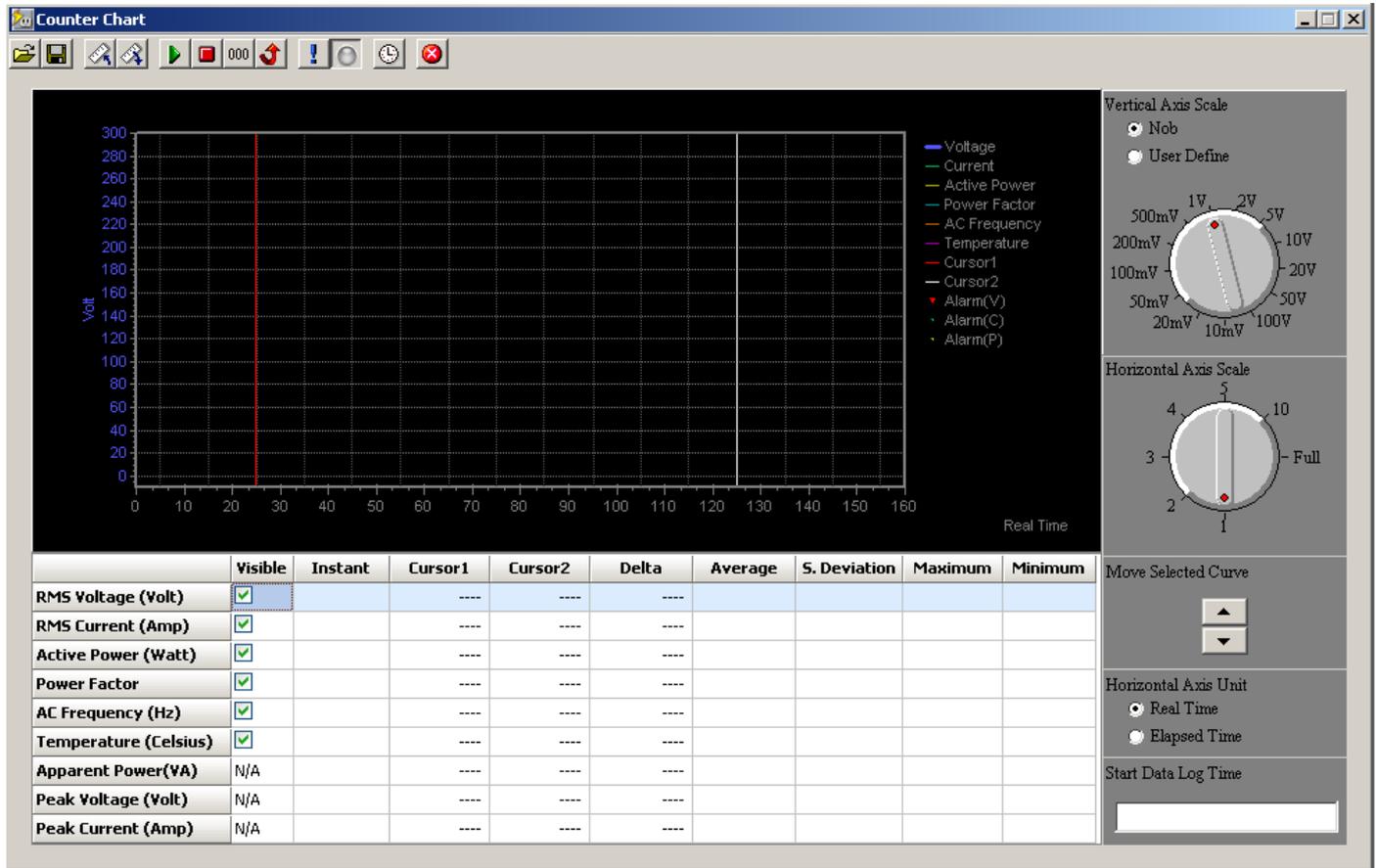


The auto save function needs to be enabled before it comes into operation; to do this follow the instructions below:

1. Check the **Enable** box.
2. Enter the save frequency in the interval field (default: 1800 seconds).
3. Press the **Apply** button.

## 7.3 Chart Color Setting

The counter chart is configurable so that its appearance and functionality can be altered for individual preferences.



### 7.3.1 Power Measurement

By checking the **Visible** box next to the measurement description, the information shown in the chart can be decided.

	Visible	Instant	Cursor1	Cursor2	Delta	Average	S. Deviation	Maximum	Minimum
RMS Voltage (Volt)	<input checked="" type="checkbox"/>	105.611	105.218	105.905	0.687	105.494	0.289	105.998	105.002
RMS Current (Amp)	<input checked="" type="checkbox"/>	3.2710	3.0350	3.6960	0.6610	3.4892	0.2802	3.9730	3.0030
Active Power (Watt)	<input checked="" type="checkbox"/>	80.950	80.370	80.100	-0.270	80.444	0.293	80.990	80.010
Power Factor	<input checked="" type="checkbox"/>	0.900	0.700	0.500	-0.200	0.716	0.150	0.900	0.500
AC Frequency (Hz)	<input checked="" type="checkbox"/>	60.40	60.80	60.10	-0.70	60.46	0.28	60.90	60.00
Temperature (Celsius)	<input checked="" type="checkbox"/>	45.61	45.79	45.29	-0.50	45.49	0.29	45.98	45.00
Peak Voltage (Volt)	N/A	107.663	----	----	----	107.499	0.286	107.982	107.023
Peak Current (Amp)	N/A	4.2270	----	----	----	4.4879	0.2878	4.9860	4.2270

The chart above is divided into 8 fields (Instant, Cursor 1, Cursor 2, Delta, Average, S. Deviation, Maximum and Minimum). These fields provide information on the values of the measurement:

**Instant** – The value at the last time point measured.

**Cursor 1** – The value at the cursor 1 position. Click on any point in chart to change this value.

**Cursor 2** – The value at the cursor 2 position. Press Shift button and click on any point in chart to change this value.

**Delta** – The difference of the values between Cursor 1 and Cursor 2.

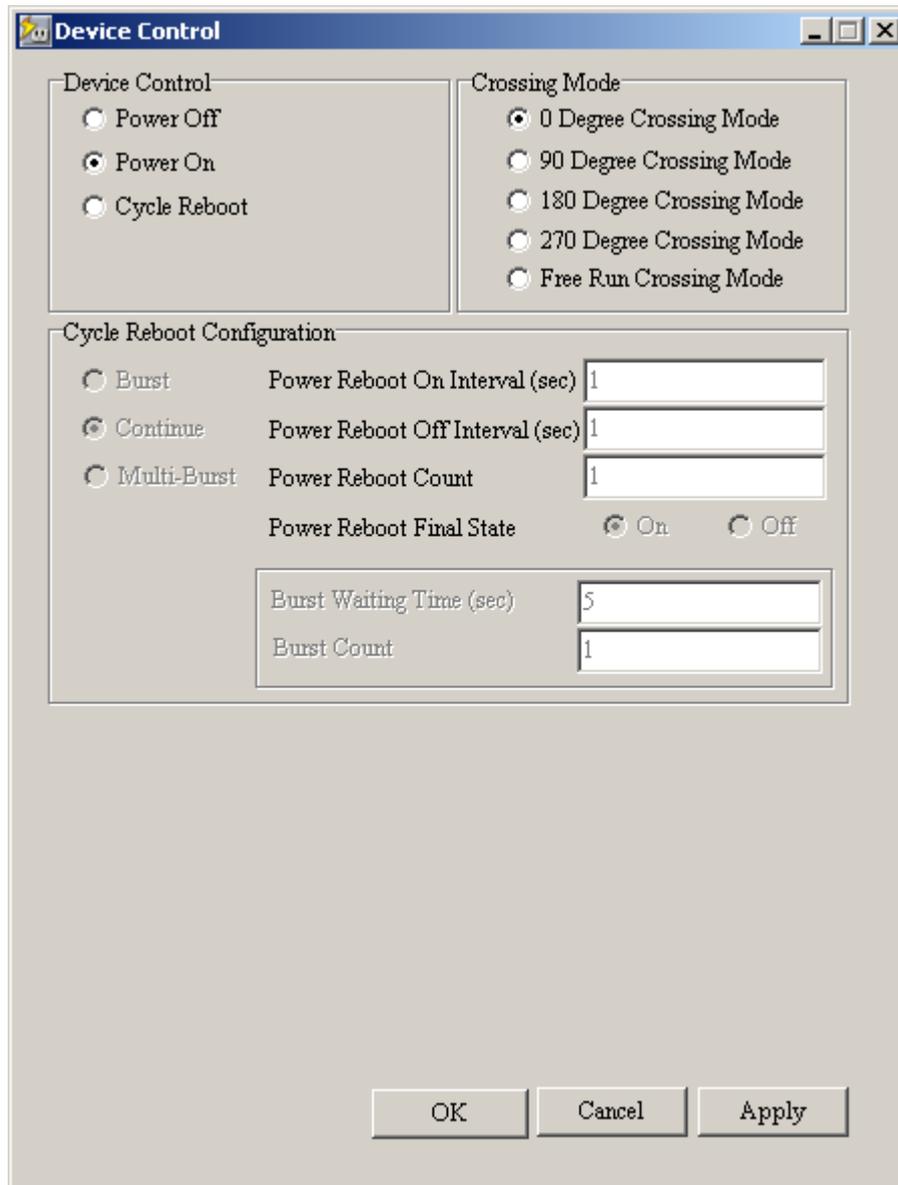
**Average** – The average of the values from the start to the current time.

**S. Deviation** – The standard deviation value measures how spread out the data is.

**Maximum and Minimum** – Maximum and minimum values from the start to the current time.

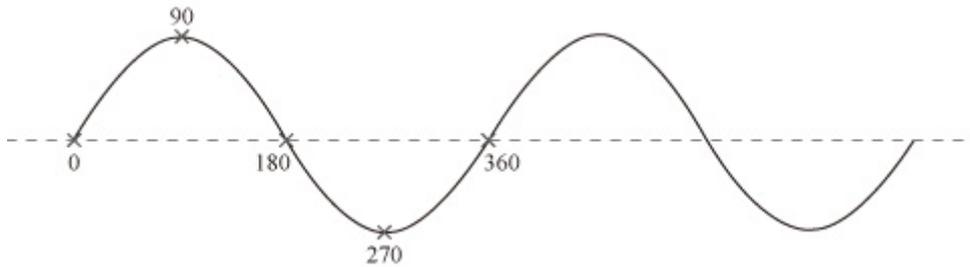
### 7.3.2 Device Control

NuOutlet-LN is capable of remotely controlling the power status and cycle reboot modes of the DUT device.



1. Press **Control** > **Device Control** and the window is displayed.
2. Click the radio button to select the appropriate power status of the DUT.
  - a) **Power Off** – To set the DUT in power off status.
  - b) **Power On** – To set the DUT in power on status.
  - c) **Cycle Reboot** – To set the DUT in cycle reboot mode.

- (i) Select **Crossing Mode** in different degrees or free run (any point) only in power on or off status.

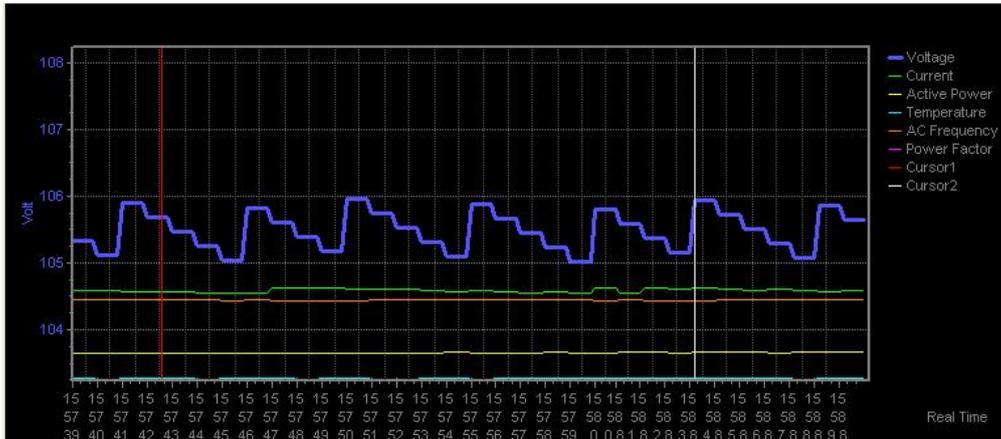


- (ii) Click on **Apply** button to activate the crossing mode.
- (iii) Click the radio button to select **Cycle Reboot** mode.
- (iv) Set **Cycle Reboot Configuration** in **Burst**, **Continue** or **Multi-Burst** mode.
- (v) Then enter power reboot interval (in seconds) and count values (in times) in the fields.
3. Press **OK** to apply all the changes you've made and exit **Device Control** window, press **Cancel** to cancel all the changes you've made and exit, or press **Apply** to apply all the changes you've made without closing the **Device Control** window.

Note: Power cycle reboot (relay count) can reach up to 100 times per second.

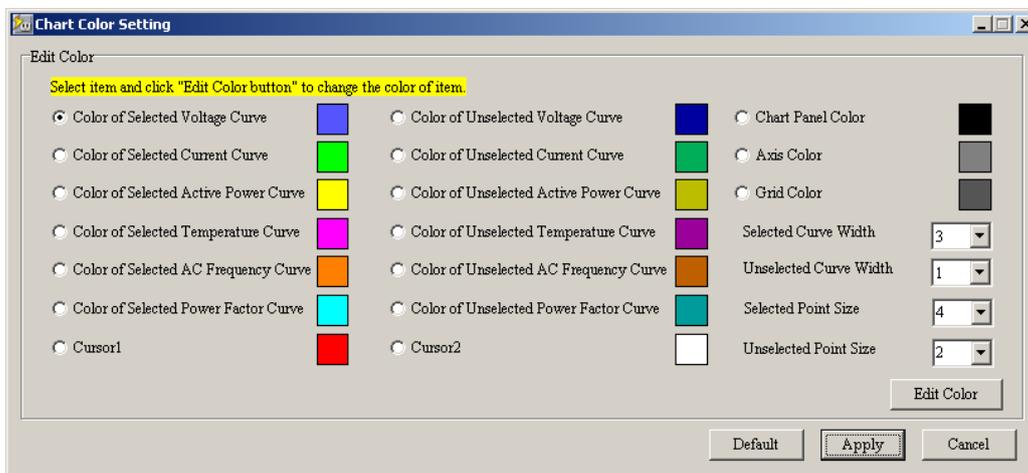
### 7.3.3 Colors

In the chart below, each measurement is represented by a different color for clarity.



The following selected and unselected curves can be different colors: Voltage, Current, Active Power, Temperature, AC Frequency and Power Factor. The Chart Panel (Background), Axis, Grid and 2 Cursors colors can also be changed. The selected and unselected curve widths can also be chosen from the drop down lists.

1. Press **Control** > **Chart Color Setting** to see the window below.

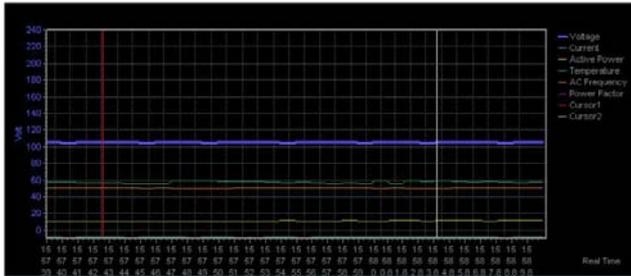


2. Click the radio button to select the appropriate measurement line.
3. Press the **Edit Color** button to open the color palette.
4. Press **Apply** to change the chart color or press **Default** to return to pre-set colors. Press **Cancel** to discard changes.

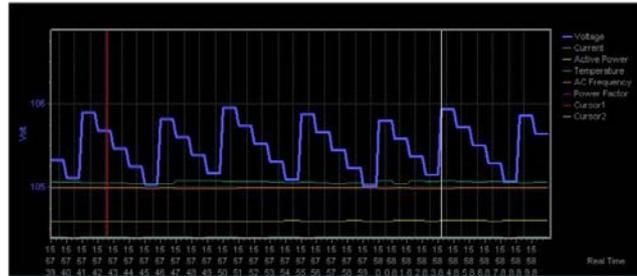
### 7.3.4 Vertical and Horizontal Axes

#### Vertical Axis

The vertical axis dial behaves like a zoom function, left click the mouse button to the desired scale or hold down the left mouse button to turn the dial clockwise or counter-clockwise and see the changes in real time. For example, see the differences in the images below.



**1V (default)**

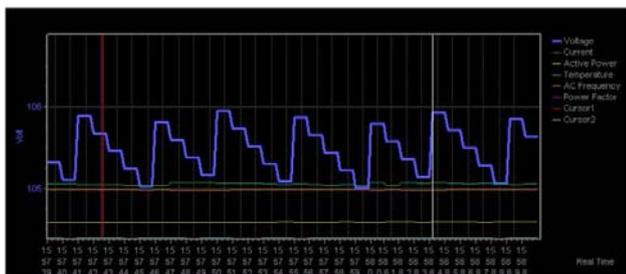


**10mV**

As can be seen, the distance between voltages has increased to the 10mV image.

#### Horizontal Axis

The horizontal axis also provides a zoom function, giving greater detail for a specific point in time. Either left click the mouse button to the desired scale or hold down the left mouse button to turn the dial clockwise or counter-clockwise and see the changes in real time.



**Scale 1 (default)**



**Scale 10**

As can be seen, the distance in time has been increased in the Scale 10 image.

## 7.4 Saving and Loading Log Files

### 7.4.1 Auto Save

The auto save function needs to be enabled before it comes into operation; to do this follow the instructions below:

1. Press the **Set Save Interval** icon  to see the window below.



2. Check the **Enable** box.
3. Enter the save frequency in the interval field (default value: 1800).
4. Press the **Apply** button.

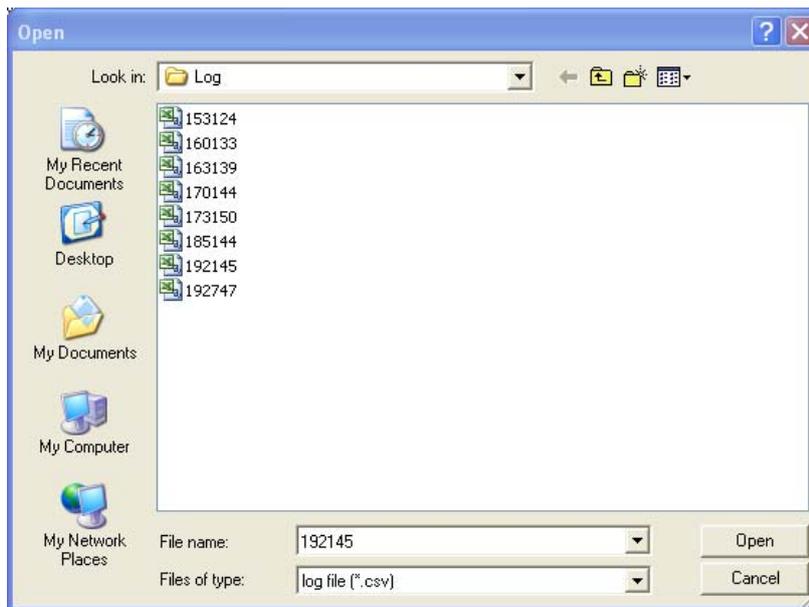
### 7.4.2 Manual Save

Under the **Counter Chart** window, press the **Save** icon  to save the current chart.

### 7.4.3 Loading Log Files

To load a previously saved chart, follow the instructions below.

1. Either a) Press **File > Load Log File**, b) Press the **Open .csv file** icon  from the counter chart window or c) Press the **Load Log** icon .



2. Select the required file and press **Open**.
3. The window is displayed as figure in the next page.



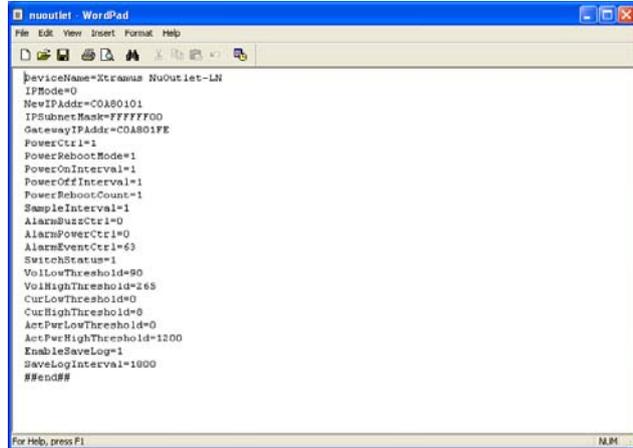
4. 8 additional fields are displayed to load log files for more details.

1	<b>Set Chart Title</b> – Name a title for this chart and also show in the chart.	5	<b>Save Scale</b> – Save scale files in .scl format.
2	<b>Start Time</b> – The start time of this log file.	6	<b>Save Chart</b> – Save files in .csv format to be opened in either NuOutlet-LN or a spreadsheet application.
3	<b>End Time</b> – The end time of this log file.	7	<b>Reset Chart</b> – Reset chart information to default settings.
4	<b>Load Scale</b> – Load previously saved scale files in .scl format.	8	<b>Exit</b> – Quit this log file and exit.

## 7.5 Saving and Loading Configuration Files

The configuration of the current file can be saved and loaded. The configuration file contains the following information:

- a) Device Name
- b) IP Addresses in Hex
- c) Alarm control
- d) Power controls
- e) Voltage thresholds
- f) Current thresholds
- g) Actual power thresholds
- h) Saving logs and intervals
- i) Switch status



```
nuoutlet: WordPad
File Edit View Insert Format Help
DeviceName=Xtramus NuOutlet-LN
IPMode=0
NewIPAddr=C0A80101
IPSubnetMask=FFFFFF00
GatewayIPAddr=C0A801FE
PowerCtrl=1
PowerRebootMode=1
PowerOnInterval=1
PowerOffInterval=1
PowerRebootCount=1
SampleInterval=1
AlarmBuzCtrl=0
AlarmPowerCtrl=0
AlarmEventCtrl=63
SwitchStatus=1
VolLowThreshold=90
VolHighThreshold=265
CurLowThreshold=0
CurHighThreshold=0
ActPwrLowThreshold=0
ActPwrHighThreshold=1200
EnableSaveLog=1
SaveLogInterval=1000
##end##
For Help, press F1
```

### 7.5.1 Save

To save the current configuration, press the  icon or **File** → **Save Configuration File**.

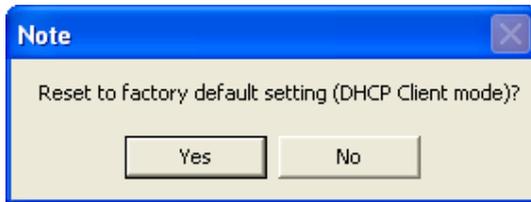
### 7.5.2 Load

To load a previous configuration, press the  icon or **File** → **Load Configuration File**.

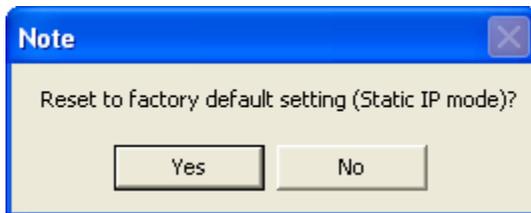
## 8. Default Settings

The NuOutlet-LN can be reset to its default settings using the NuOutlet-LN Window:

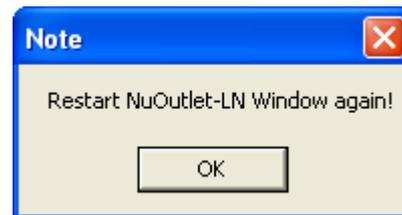
Press **System > Reset to factory default > DHCP Client mode** or **Static IP mode**.



**DHCP Client mode**



**Static IP mode**



Or

Use a paperclip or pen to press the **Reset** button on the right side of the NuOutlet-LN. This resets the device to the current settings.



## 9. NuOutlet-LN Specifications

NuOutlet-LN : AC Power Monitor and Controller	
Model No.	NuOutlet-LN
Connector	1 RJ45 Ethernet phone jack and 1 IEC-320 C13 INLET, 1 IEC-320 C20 OUTLET
Communication	Ethernet
Network I/F	10/100Base-T with Full/Half duplex mode
Measure Detection	Vrms AC, Irms AC, active power, power factor, Vpeak AC and Ipeak AC
Security	Username and Password with encryption
Security Level	Dual Level, "Guest " with switch on/off function, "Admin" with all configuration parameters & functions
Operation Mode	Remote and Local with automatic configuration
Report Format	History log or Instant display
Warning Information	Auto reply packet for internet related connection, Buzz
Switch Mode	ON/OFF, Cycle Reboot
Switch Parameters	Conditions of single or multiple events like threshold, schedule, key word or sequential events combination.
Display	Segment characters with unit prompt abbreviation LEDs
Expansion	Cascaded through Ethernet port without amount limitation
Protection	Software, Fuse, Internal Breaker
Power Source	90~250V AC, 50~60 Hz
Power Consumption	5 W (110V/220V)
Outlet Power Supply Rating	600 W
Case Dimensions	188.5 mm (L) x 86.8 mm (W) x 34.2 mm (H)

Weight	Net Weight: 640g, Shipping Weight: 1450g
Operating Temperature	32°F to 113°F (0°C to 45°C)
Storage Temperature	-40°F to 185°F (-40°C to 85°C)
Humidity	10%~90% RH

<b>Error Code Definition</b>				
<b>Value displayed on LCD</b>	<b>Abnormal and Error LEDs</b>	<b>Buzzer short : 0.2 second long : 1 second</b>	<b>Error code description</b>	<b>Outlet power</b>
1	Yellow flash	None	Hardware is LN but runtime code is not	OFF
2	Yellow flash	None	Hardware is RN but runtime code is not	OFF
3	Yellow flash	None	Hardware is WN but runtime code is not	OFF
4	Yellow flash	None	DRAM test error	OFF
5	Yellow flash	None	EEPROM test error	OFF
6	Yellow flash	None	Power Meter(CS5463) test error	OFF
7	Yellow flash	1 long - 1 short, delay 0.5 second and repeat	Active power over 600W	OFF
8	Yellow flash	4 short, delay 0.5 second and repeat	Vrms AC over 240Vrms AC	OFF
9	Yellow flash	2 short, delay 0.5 second and repeat	NuOutlet-LN over heat	OFF
10	Yellow flash	None	No Runtime code, boot from Prom code	OFF
11	Yellow flash	1 long, delay 0.5 second and repeat	Short circuit detected	OFF
12	Yellow flash	2 short, delay 0.5 second and repeat	Exceed High Threshold parameters or under Low Threshold parameters defined in Alarm Threshold Setting.	Depending on alarm setting

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