

OPTI-Solar

Monitoring Web Server



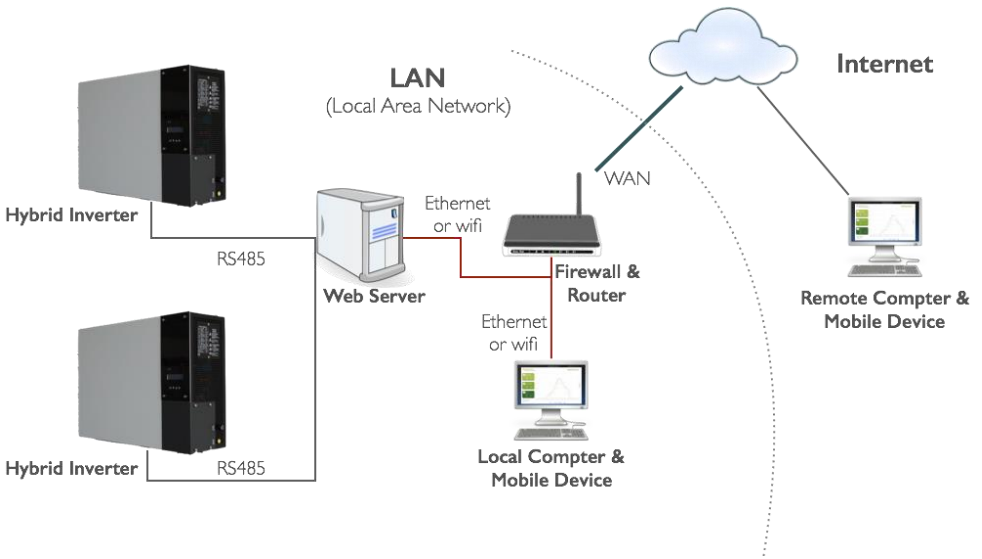
Installation & Operation Manual

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Table of Contents

Contact Information	錯誤! 尚未定義書籤。
Overview	2
Installation	3
Devices.....	3
Set up the web server	3
Access in LAN	6
Access outside LAN	7
Operation	8
Layout	8
MENU	9
Trouble Shooting	10

Overview



Glossary

1. Hybrid Inverter: The inverter to be monitored
2. RS485: 2-wires, half-duplex wires for connecting to web server
3. Web Server: A server collecting data from inverters, storing data and send data to local computer & mobile devices through web based interface
4. Local computer and mobile device: Computer and mobile device used to view data of inverters through web server
5. LAN: Local Area Network
6. Firewall and router: A network device managing the data transfer in LAN and to Internet
7. Remote computer & mobile device: Computer and device outside LAN. For this devices to view data in LAN, you need to set up the firewall so as to access data in the web server

Installation

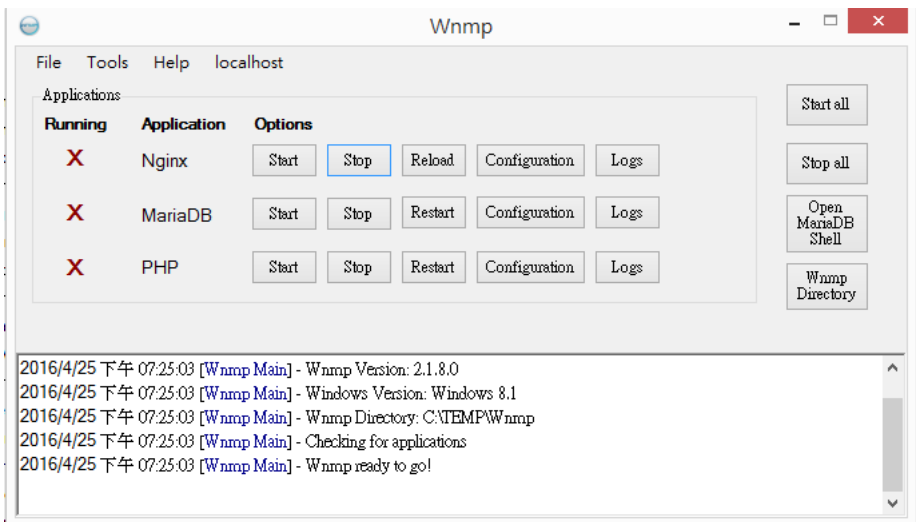
Devices

1. A computer running Windows XP, 7, 8 or 10
2. RS485 interface on computer. If there is such interface, please prepare a USB to RS485 converter
3. Inverters: *please assign different RS485 addresses in setup menu stated in user manual*

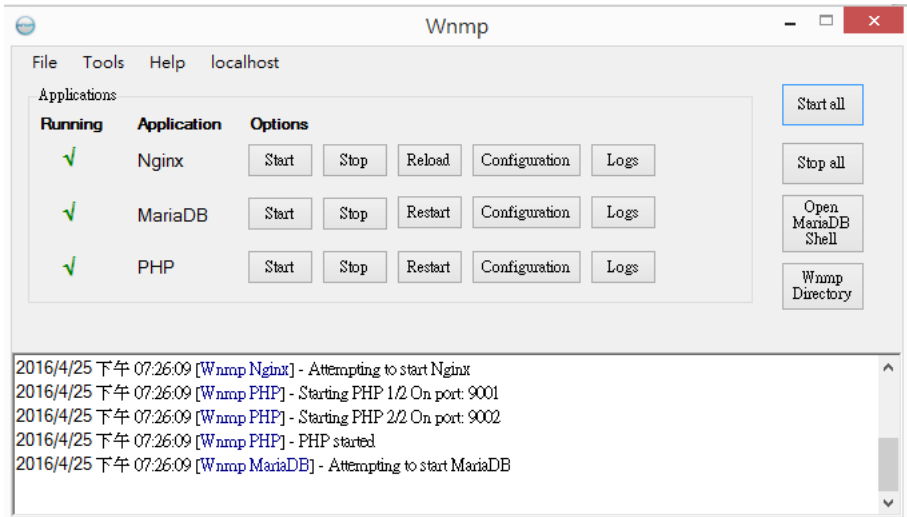
Set up the web server

For the first installation, please follow below steps

- 1 Extract wnmp.zip to a folder in your hard disk of you computer acting as a web server.
 - 1.1 Folder wnmp
 - 1.2 Wnmp.exe: program to build up the web server
 - 1.3 HPVeMonitor.exe: the program to collect data from inverter(s)
 - 1.4 Other files are for Maria data base
- 2 Go into wnmp folder, double click and Run the program “Wnmp.exe” in the extracted folder, you will see windows as below



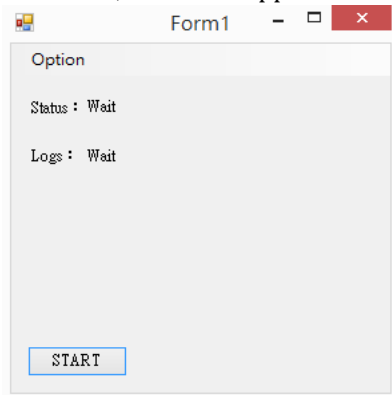
- 3 Click on the button “Start all” , you will see below window



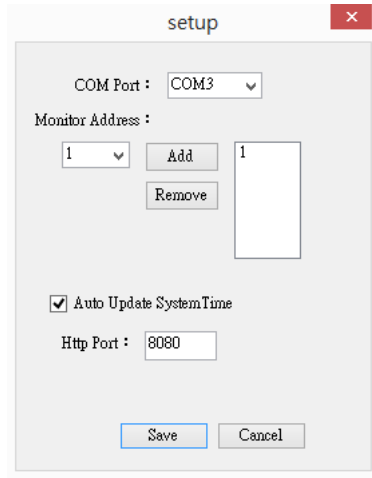
Running	Application	Options
✓	Nginx	Start Stop Reload Configuration Logs
✓	MariaDB	Start Stop Restart Configuration Logs
✓	PHP	Start Stop Restart Configuration Logs

```
2016/4/25 下午 07:26:09 [Wnmp Nginx] - Attempting to start Nginx
2016/4/25 下午 07:26:09 [Wnmp PHP] - Starting PHP 1/2 On port: 9001
2016/4/25 下午 07:26:09 [Wnmp PHP] - Starting PHP 2/2 On port: 9002
2016/4/25 下午 07:26:09 [Wnmp PHP] - PHP started
2016/4/25 下午 07:26:09 [Wnmp MariaDB] - Attempting to start MariaDB
```

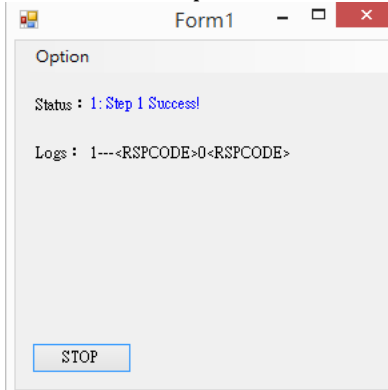
4 Run "HPVeMonitor.exe", a window appears as below:



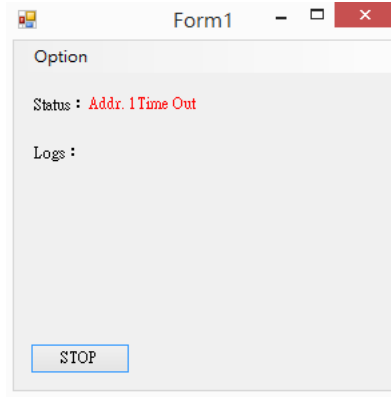
5 Click "Option" on above window to setup



- 5.1 COM Port: The COM port of your RS485 interface
 - 5.2 Monitor Address: The RS485 address set in your inverter (In inverter setup menu, refer to user manual)
 - 5.3 Auto Update system Time: Synchronize your inverter time with your computer automatically. Recommend to select check (V)
 - 5.4 Http Port: It is the communication port for your web server. Usually it is 8080. Consult your IT/network manager to confirm the port.
 - 5.5 Click “Save” to finish
- 6 Click the “Start” button in step 4, you will see the window as below if the communication between computer and inverter is available;



If the communication is not successful, you will see below window:



- 7 If you turn off or restart your computer, please do step 2, 3, 4 and 6 again to run the web server

Access in LAN

1. Use a computer or mobile device with web browser such as IE, Firefox and Safari
2. Key in the (IP address):(http port) of your web server (The example here is 192.168.6.6:8080) to see the status and data



Access outside LAN

Outside the LAN, you need to setup the firewall of your router so as to get through the firewall. To set up the firewall, please consult your IT/network manager.

Operation

Layout



- 1 Inverter List: List all inverter by their serial numbers ever connected. For inverter is connected, its icon is ; for inverter not connected, it is .
- 2 Inverter working status, includes
 - 2.1 PV: Power from PV
 - 2.2 Battery: Capacity, current and voltage
 - 2.3 Mains: Wattage and voltage
 - 2.4 Local Load: Power

The arrow indicates the direction of power flow

- 3 Information: By clicking on each block, the detail information will appear here
- 4 Menu: Selection of current display. Status and Log
- 5 Daily chart
- 6 Monthly graph

MENU

By clicking on Menu, you can change to status and log. The log lists all events of ALL inverters

Trouble Shooting

If you encounter any problem, please follow the instruction below to solve. If the problem continues, please contact your local service for further assistance.

Trouble	Treatment
<i>File can not be extracted</i>	Please install and use proper software such as Zip, 7-ZIP to do this
<i>No connection to inverter</i>	<ol style="list-style-type: none">1 Inverter is turn-on2 Check the RS485 connection and wires3 If you are using USB/RS485 converter, make sure you have installed the proper driver4 Check the address for each inverter, the address should be different from each other
<i>Data lost</i>	Make sure the connecting between inverter and webserver is good
<i>Can not see all information and graph on mobile device</i>	Need higher resolution mobile devices.

P/N: VU00-A00000-0