UPSMON PRO Linux --- User Manual

Version : 1.22

*Attention : root authority is necessary to execute at Linux here
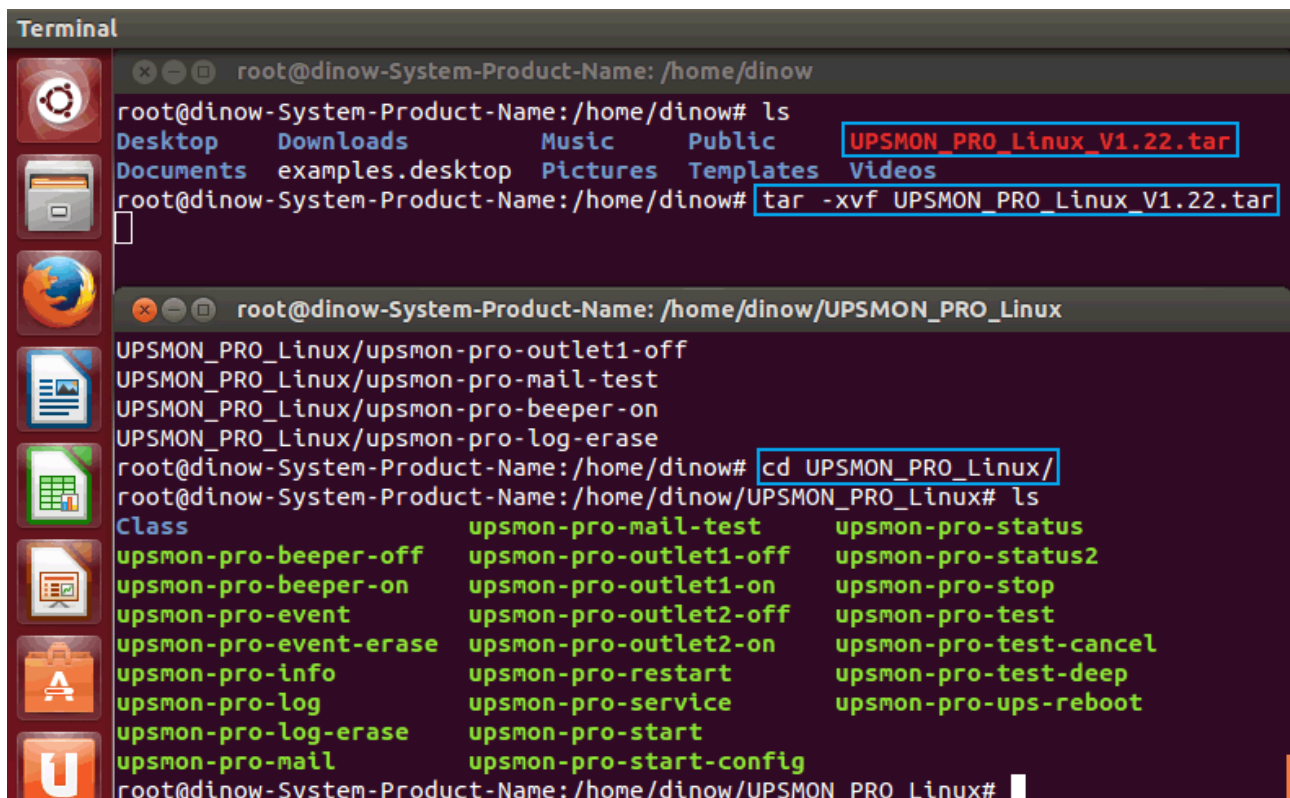
AA. UPSMON PRO Install

A.1. Command : cp   UPSMON_PRO_Linux.tar   /home/user
A.2. Command : **tar   -xvf   UPSMON_PRO_Linux.tar**
A.3. Command : cd   UPSMON_PRO_Linux

==> These command will copy and uncompressed this ups monitoring software

==> And the package contains executable files about ups monitoring, configuration, and control

Diagram : UPSMON PRO Install (Ubuntu)

BB. UPSMON PRO Start

B.1. Command : **upsmon-pro-start**

==> It will ask you the basic information and then <u>auto start</u> ups monitoring service
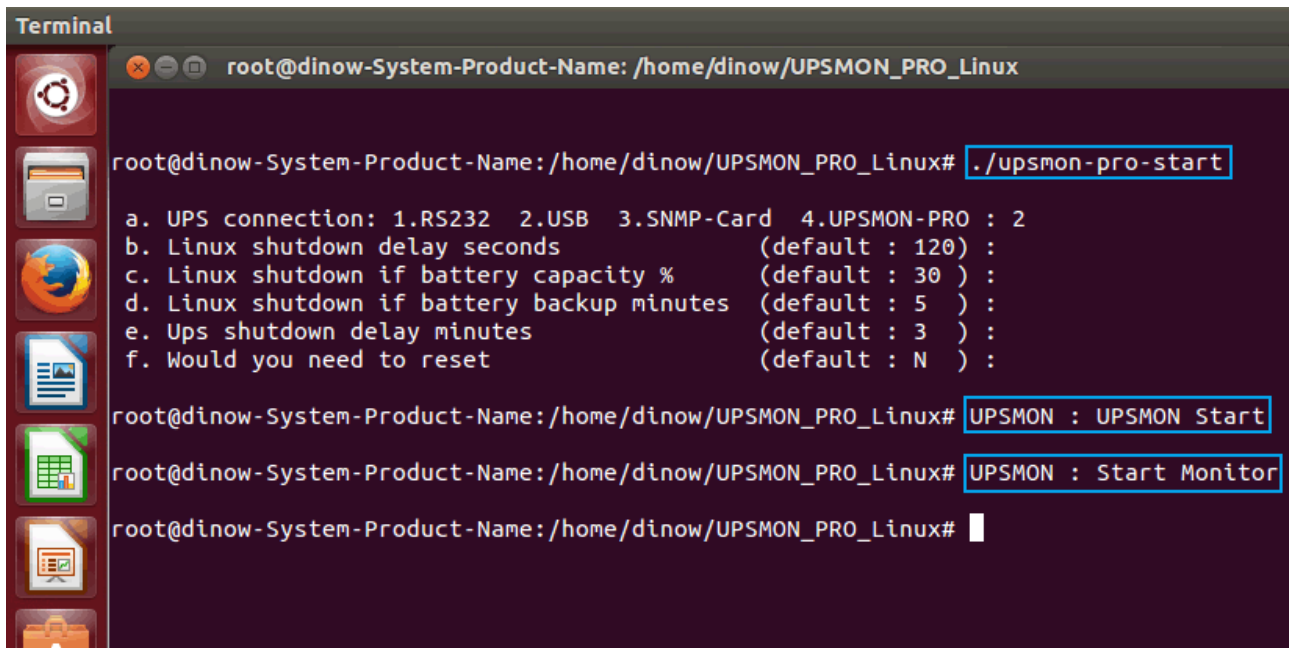
- **a. UPS Connection :** 1.RS232 2.USB 3.SNMP-Card 4.UPSMON-PRO

- **b. Linux shutdown delay seconds :** When power failure occurs, Linux will act shutdown after this count down seconds

- **c. Linux shutdown if battery capacity :** Linux act shutdown at once if battery descend to this level

- **d. Linux shutdown if battery backup minutes :** Linux act shutdown at once if battery estimated backup time descend to this minutes

- **e. Ups shutdown delay minutes** : Once Linux commit shutdown, ups will sustain power for these minutes

==> **UPSMON : UPSMON Start**
==> It means the program successfully execute

==> **UPSMON : Start Monitor**
==> It means the program successfully get ups connection

Diagram : USB Connection

```
dinow@linux-s9bl:~/Desktop                                    _  □  ✕

File  Edit  View  Terminal  Tabs  Help

linux-s9bl:/home/dinow/UPSMON_PRO_Linux # ./upsmon-pro-start

  a. UPS connection: 1.RS232  2.USB  3.SNMP-Card  4.UPSMON-PRO : 1
  b. Name and path of serial port          (ex:/dev/ttyS0) : /dev/ttyS0
  c. Linux shutdown delay seconds          (default : 120) : 90
  d. Linux shutdown if battery capacity %  (default : 30 ) :
  e. Linux shutdown if battery backup minutes (default : 5  ) :
  f. Ups shutdown delay minutes            (default : 3  ) : 2
  g. Would you need to reset               (default : N  ) :

linux-s9bl:/home/dinow/UPSMON_PRO_Linux # UPSMON : UPSMON Start

linux-s9bl:/home/dinow/UPSMON_PRO_Linux # UPSMON : Start Monitor
```

Diagram : RS232 Connection (SuSe)

```
 Applications  Places  System   🦊  📧  📝

 ▣       dinow@localhost:/home/dinow/UPSMON_PRO_Linux       _  □  ✕

File  Edit  View  Search  Terminal  Help

[root@localhost UPSMON_PRO_Linux]# ./upsmon-pro-start

  a. UPS connection: 1.RS232  2.USB  3.SNMP-Card  4.UPSMON-PRO : 3
  b. SNMP-Card IP address                          : 10.192.136.236
  c. Linux shutdown delay seconds          (default : 120) : 180
  d. Linux shutdown if battery capacity %  (default : 30 ) :
  e. Linux shutdown if battery backup minutes (default : 5  ) :
  f. Ups shutdown delay minutes            (default : 3  ) : 5
  g. Would you need to reset               (default : N  ) :

[root@localhost UPSMON_PRO_Linux]# UPSMON : UPSMON Start

[root@localhost UPSMON_PRO_Linux]# UPSMON : Start Monitor

[root@localhost UPSMON_PRO_Linux]# █
```

Diagram : SNMPCard Connection (CentOS)

B.2 Command : **upsmon-pro-stop**

==> It will stop ups monitoring service

B.3 Command : **upsmon-pro-service**

==> This command directly start ups monitoring without any information query
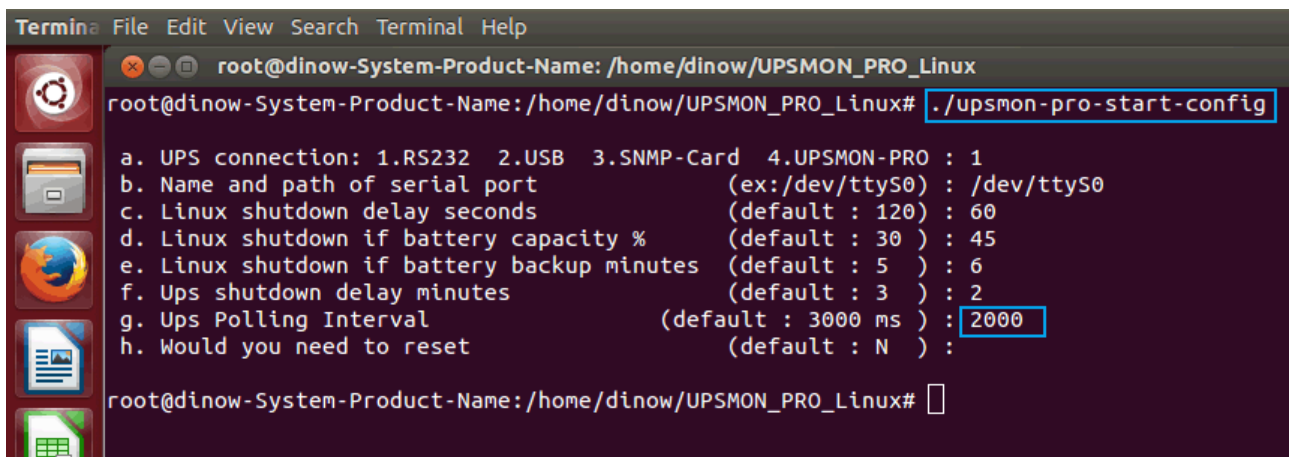   (Add this within start daemon)

B.4 Command : **upsmon-pro-restart**

==> This command will restart the ups monitoring

B.5. Command : **upsmon-pro-start-config**

==> This command will reset ups connection and shutdown condition

==> **Polling Interval** : The application query interval to ups (milli second)


```
Termina  File  Edit  View  Search  Terminal  Help

   ⊗⊜⊙   root@dinow-System-Product-Name: /home/dinow/UPSMON_PRO_Linux

root@dinow-System-Product-Name:/home/dinow/UPSMON_PRO_Linux# ./upsmon-pro-start-config

   a. UPS connection: 1.RS232  2.USB  3.SNMP-Card  4.UPSMON-PRO : 1
   b. Name and path of serial port            (ex:/dev/ttyS0) : /dev/ttyS0
   c. Linux shutdown delay seconds            (default : 120) : 60
   d. Linux shutdown if battery capacity %    (default : 30 ) : 45
   e. Linux shutdown if battery backup minutes (default : 5  ) : 6
   f. Ups shutdown delay minutes              (default : 3  ) : 2
   g. Ups Polling Interval            (default : 3000 ms ) : 2000
   h. Would you need to reset                 (default : N  ) :

root@dinow-System-Product-Name:/home/dinow/UPSMON_PRO_Linux# ▯
```

Diagram : Start Config

CC. UPSMON PRO Status

C.1 Command : **upsmon-pro-status**

==> It will repeatedly poll you current ups status until Ctrl-C pressing

- **Power Status** : Battery Power / Utility Power
- **Input Voltage** : To display utility power voltage
- **Input Frequency** : To display utility power frequency
- **Output Voltage** : To display ups output voltage
- **Output Power** : To display ups output power
- **UPS Status** : Normal / Bypass / AVR Boost / AVR Buck / UPS Failed
- **UPS Load** : To display total capacity of loads
- **UPS Temperature** : To display ups inside temperature
- **UPS Beeper** : ON / OFF
- **Battery Status**: Normal/ Charge/ Discharge / Battery Test / Low Battery / Battery Failed
- **Battery Capacity** : To display battery percentage level
- **Battery Voltage** : To display battery its voltage
- **Battery Backup Time** : To display battery estimated backup time in battery mode
- **Battery Test Times** : Accumulated times that ups made battery test
- **Battery Last Test** : The last time this ups made battery test
- **Battery Test Result** : Normal / Battery Failed / Low Battery
- **Battery Power Times** : Accumulated times that ups output power supply from batteries
- **Battery Power Start** : The last time ups switch power from its battery
- **Battery Power End** : The last time ups switch power to utility
- **Battery Age** : The age of ups batteries have used
- **Ambient Temperature** : The sense of environmental temperature
- **Ambient Humidity** : The sense of environmental humidity
- **Upsmon Pro Linux** : This ups monitoring software version
- **Upsmon Pro Status** : Monitoring / Disconnect
- **Upsmon Pro Data Update** : The data update time
- **Upsmon Pro is going to shutdown after XXX seconds** : Blackout and shutdown mode

```
root@dinow-System-Product-Name: /home/dinow/UPSMON_PRO_Linux

Power Status         : AC Utility Power
Input Voltage        : 110 Volts
Input Frequency      : 60 Hz
Output Voltage       : 120 Volts
Output Power         : 34 Watt
Ups Status           : Normal
Ups Load             : 3 Percent
Ups Temperature      : 32 C
Ups Beeper           : OFF
Battery Status       : Normal
Battery Capacity     : 100 Percent
Battery Voltage      : 22.0 Volts
Battery Test Times   : 3 Times
Battery Last Test    : 11:43:51 2015/06/01
Battery Test Result  : Battery Normal
Battery Power Times  : 3 Times
Battery Power Start  : 11:46:16 2015/06/01
Battery Power End    : 11:46:44 2015/06/01
Battery Age          : 1 Month
Ambient Temperature  : 28 C
Ambient Humidity     : 45 Percent
Upsmon Pro Linux     : V1.22
Upsmon Pro Status    : Monitoring
Upsmon Pro Update    : 13:32:37 2015/06/01
```

Diagram : UPS Status

C.2 Command : **upsmon-pro-info**

==> To display ups service / devices information / and configuration.

- **Ups Company** : The manufacture of the ups
- **Ups Model** : The ups model name
- **Ups Firmware** : The ups firmware version
- **Rating Input Volt** : Ratting Input Voltage
- **Rating Output Volt** : Ratting Output Voltage
- **Upsmon Pro Connect :** RS232 / USB / SNMP-Card / UPSMON-PRO
- **Upsmon Pro RS232 Port Name and Path** : Serial port path (ex : /dev/ttyS0)
- **Upsmon Pro Master IP :** The IP address of Upsmon Pro Master (RS232 or USB)
- **Snmp Card IP** : The IP address of snmp card
- **Snmp Card firmware** : The firmware version of snmp card
- **Snmp Card Community** : The community of snmp card
- **Upsmon Pro Usb VID & PID** : Usb vendor ID and Usb product ID
- **Upsmon Pro Usb Type** : Driver for usb/hid ups equipment
- **Polling Interval** : The query interval to ups
- **Linux shutdown delay seconds :** When power failure occurs, Linux will act shutdown after this count down seconds
- **Linux shutdown if battery capacity :** Linux act shutdown at once if battery descend to this level
- **Linux shutdown if battery backup minutes :** Linux act shutdown at once if ups estimated battery backup time descend to this minutes
- **Ups shutdown delay minutes** : Once Linux commit shutdown, ups will sustain power for these minutes

Diagram : UPS Information

C.3 Command : **upsmon-pro-log**

==> To list the ups data log

C.4 Command : **upsmon-pro-log-erase**

==> To erase the ups data log

==> To avoid data conflict, please execute this command without upsmon pro service running

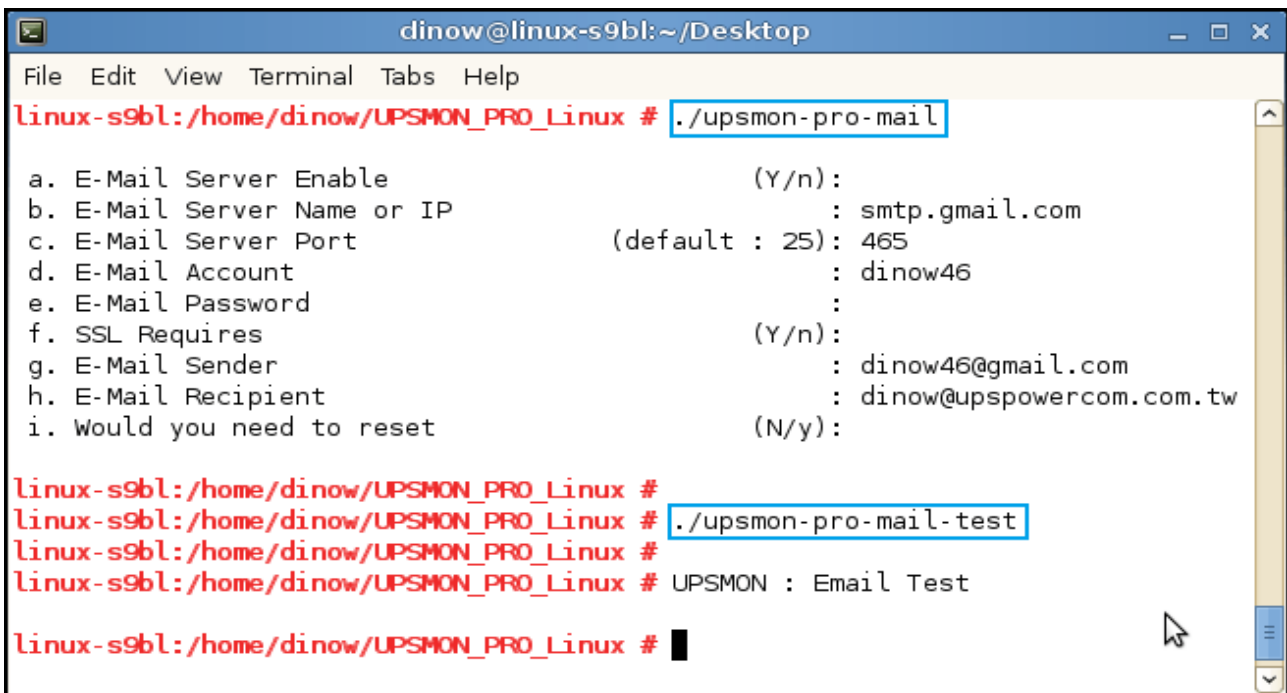C.5 Command : **upsmon-pro-event**

==> To list the ups event

C.6 Command : **upsmon-pro-log-erase**

==> To erase the ups event

==> To avoid data conflict, please execute this command without upsmon pro service running

DD. UPSMON PRO Config

D.1 Command : **upsmon-pro-mail**

==> This configuration will help you to get email notification once ups events occurs

- **a. E-Mail Server Enable** : Y / n
- **b. E-Mail Server Name or IP :** Email server address
- **c. E-Mail Server Port** : 25 (default)
- **d. E-Mail Account** : The account of this email server
- **e. E-Mail Password** : The password of this email account
- **f. SSL Requires** : This mail server requires an secure connection
- **g. E-Mail Sender** : The email address of this account
- **h. E-Mail Recipient :** The recipient who needs to get email notification

D.2 Command : **upsmon-pro-mail-test**

==> This command will send a test mail to make sure your configuration is success or not

EE. UPSMON PRO Set

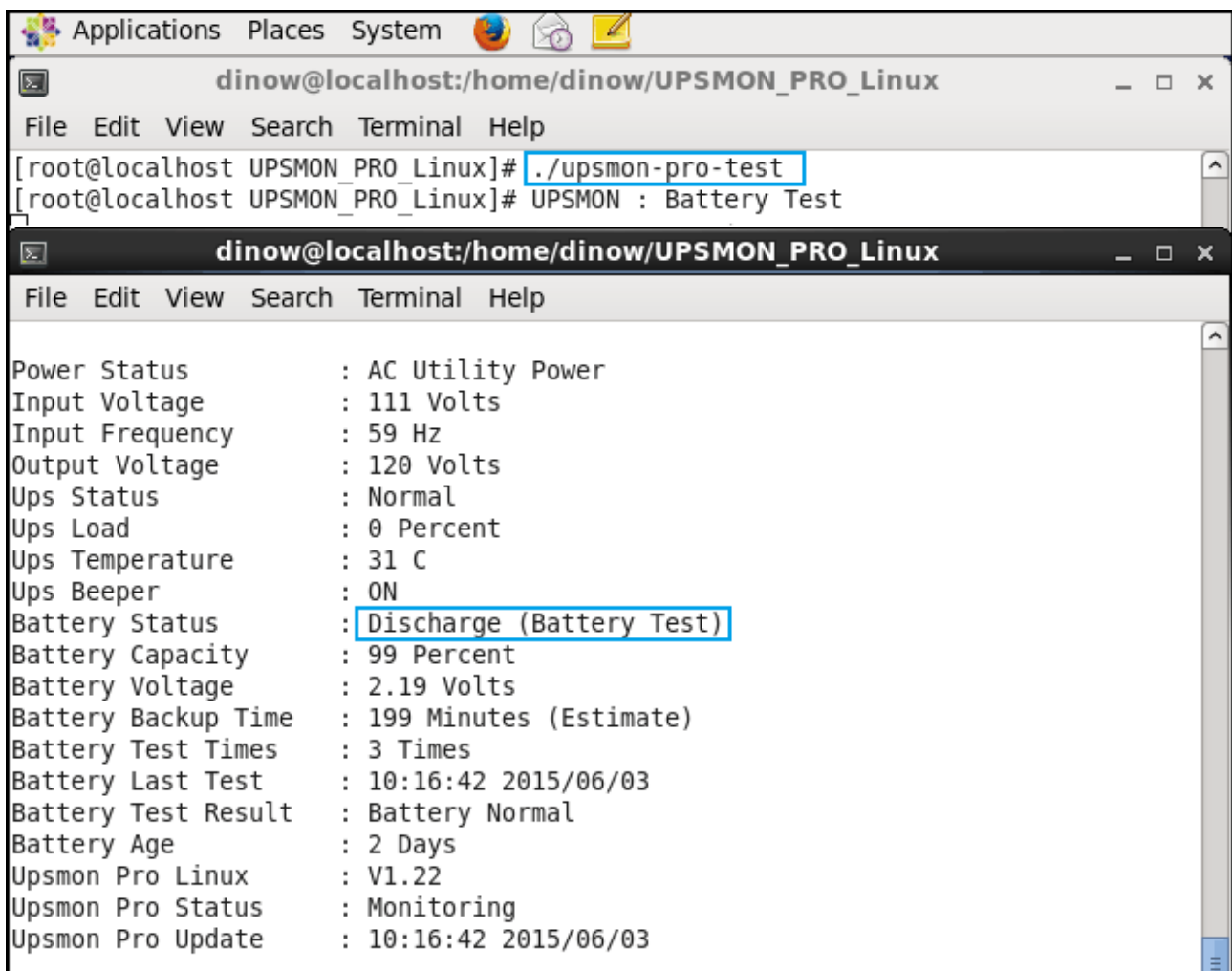E.1 Command **: upsmon-pro-test**

==> To check the battery health, ups will supply the power shortly from its battery

E.2 Command **: upsmon-pro-test-deep**

==> To simulate battery capability, ups will supply battery power for its limits

E.3 Command **: upsmon-pro-test-cancel**

==> With this command, it will cease deep battery power test

Diagram : UPS Batter Test

E.4 Command : **upsmon-pro-beeper-on**

==> Ups alarm for ups warning condition

E.5 Command : **upsmon-pro-beeper-off**

==> Ups silence for ups warning condition

E.6 Command : **upsmon-pro-ups-reboot**

Description : Shutdown Linux and reboot ups after XX minutes

- **a. Ups reboot after minutes (defaut : 2) :** Ups reboot its power after this minutes
- **b. Commit ups reboot (Y / n) :**

E.7 Command : **upsmon-pro-outlet1-off**

==> It will turn ups outlet1 OFF at once

E.8 Command : **upsmon-pro-outlet1-on**

==> It will turn ups outlet1 ON at once

E.9 Command : **upsmon-pro-outlet2-off**

==> It will turn ups outlet2 OFF at once

E.10 Command : **upsmon-pro-outlet2-on**

==> It will turn ups outlet2 ON at once

==> ups outlets control is specific for certain ups

FF. UPSMON PRO Multi-Connect

==> The UPSMON PRO can play the role as Master or Slave

F.1 UPSMON PRO Master

- UPSMON PRO Master : The Linux who physically connects UPS via RS232 or USB
- UPSMON PRO Master : It can share UPS status to the other UPSMON PRO Slaves
- EX : UPSMON PRO Master : 10.192.136.231 (IP Address)
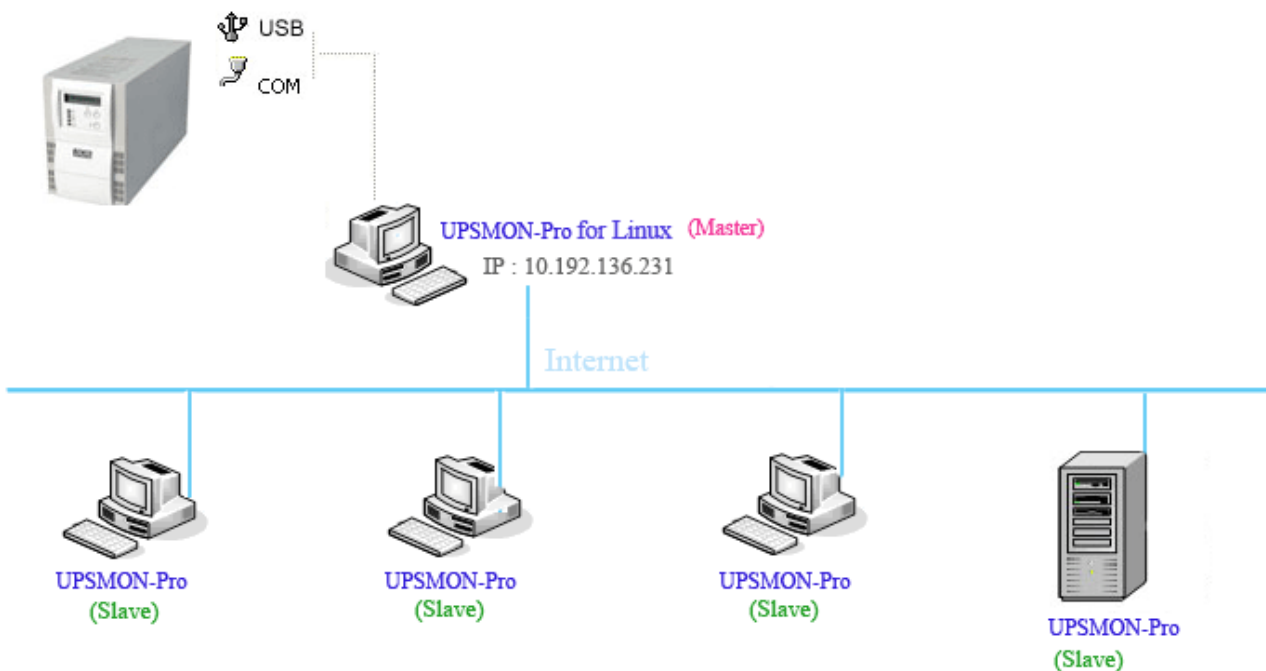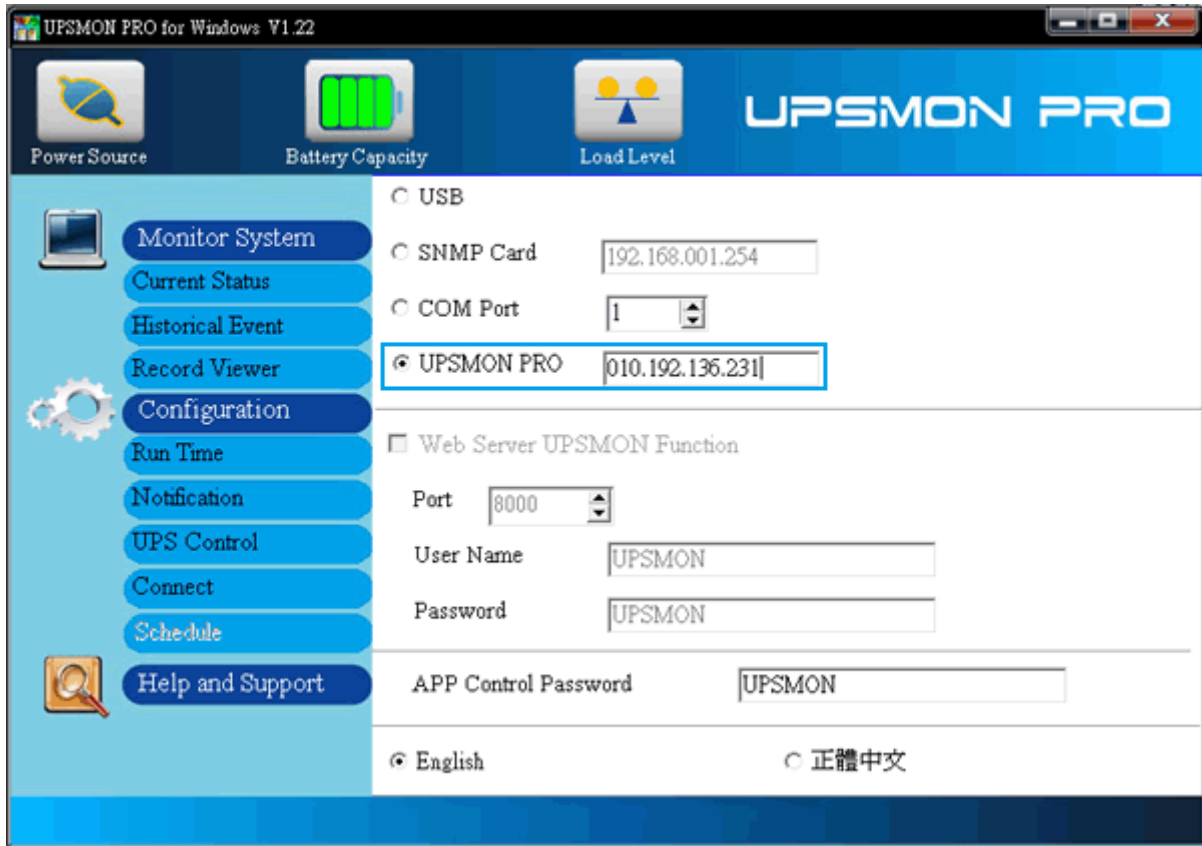

F.2 UPSMON PRO Linux Slave

- UPSMON PRO Slave : The Linux who connect to UPSMON PRO Master via net
- UPSMON PRO Slave : Execute upsmon-pro-start with 4 upsmon-pro parameter

F.3 UPSMON PRO Windows Slave

- UPSMON PRO Slave : The Windows who connect to UPSMON PRO Master via net
- UPSMON PRO Slave : Connect : Choose UPSMON PRO

GG. UPSMON PRO Auto Start

G.1 Command : / path / UPSMON_PRO_Linux / **upsmon-pro-service**

==> To have a daemon start every time Linux reboot, please add above script into beginning procedures. Typically this script locate in "/etc/rc.d/" or "/etc/rc.d/rc.local" or "/etc/init.d/rc.local". However the name and path vary by the distribution

HH. Q and A

H.1 Linux usb connect Fail :
Command : sudo   apt-get   install   lib32bz2-1.0   (Debian)
Command : sudo   apt-get   install   lib32z1   (Ubuntu / Mint)
Command : yum   install   glibc.i686   (Fedora / CentOS)

H.2 Linux Display Fail :
Command : sudo   apt-get install   default-jre
Command : cd   UPSMON_PRO_Linux / EXT
Command : java   Display