

## UPSilon2000 on Linux & Mac OSX Help Manual

UPSilon2000 (Linux & Mac OSX) is an intelligent UPS management software that works on the Linux & Mac OSX terminal console. It can clearly display the real-time status of UPS input and output voltage, frequency, load, temperature and battery capacity with data and graphics. The user can monitor the quality of the power supply, and can also remotely monitor the NetAgent through the network, so that the user can manage the power more efficiently without the limitation of space. When the utility power is interrupted or the UPS battery's capacity is low, The UPSilon2000 can shut down system safely.

This document is the support manual of UPSilon2000 on Linux & Mac OSX System, including installation, usage and problems.

### 1: Installation

UPSilon2000 on Linux & Mac OSX has 4 installation files, corresponding to different operating systems:

- 1: linux-upsilon-5.5-x86.tar.gz -----Linux 32-bit system
- 2: linux-upsilon-5.5-x64.tar.gz -----Linux 64-bit system
- 3: darwin-upsilon-5.5-x86.tar.gz-----Mac OSX 32-bit system
- 4: darwin-upsilon-5.5-x64.tar.gz-----Mac OSX 64-bit system

Take the CentOS Linux release 7.8.2003 (Core) release as an example,

#### 1): File Installation

First enter the Terminal Console, create the "myapp" directory under the home directory, copy linux-upsilon-5.5-x64.tar.gz to the directory, and decompress it with tar **Figure (1)**.

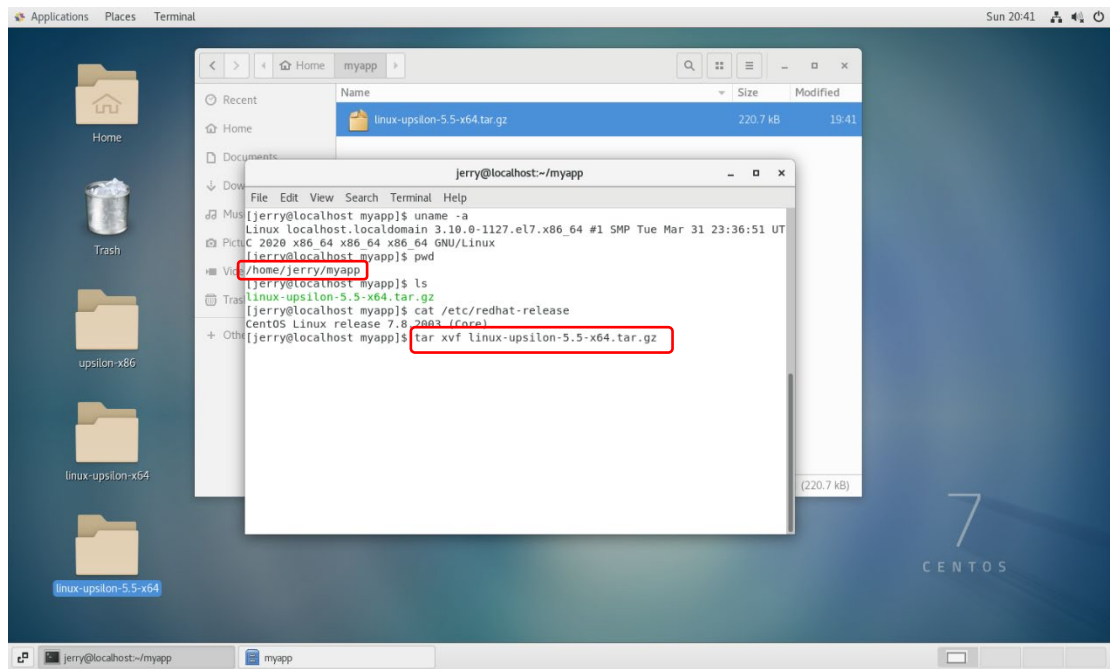


Figure (1)

After decompression, enter the directory `linux-upsilon-5.5-x64`, use “`ldd`” to check if dependent libraries is complete (In MacOSX system, use the tool “`otool`” Refer to [Figure 2-1](#)), If “`ncurses`” and “`usb`” are missing, use `[apt-get install libncurses5-dev] [apt-get install libusb-dev]` to install them. Installation requires root installation permission. If the current user is a “`sudoer`”, you can “`sudo ./install.linux`”, otherwise you need “`su`” switch to the root user, as shown in [Figure \(2\)](#) to enter the installation console. Follow the installation script wizard and press Enter, you can finish file installation [Figure \(3\)](#), the default installation target path is `/etc/upsilon`

*Note: Source file’s path with spaces may cause the installation to fail.*

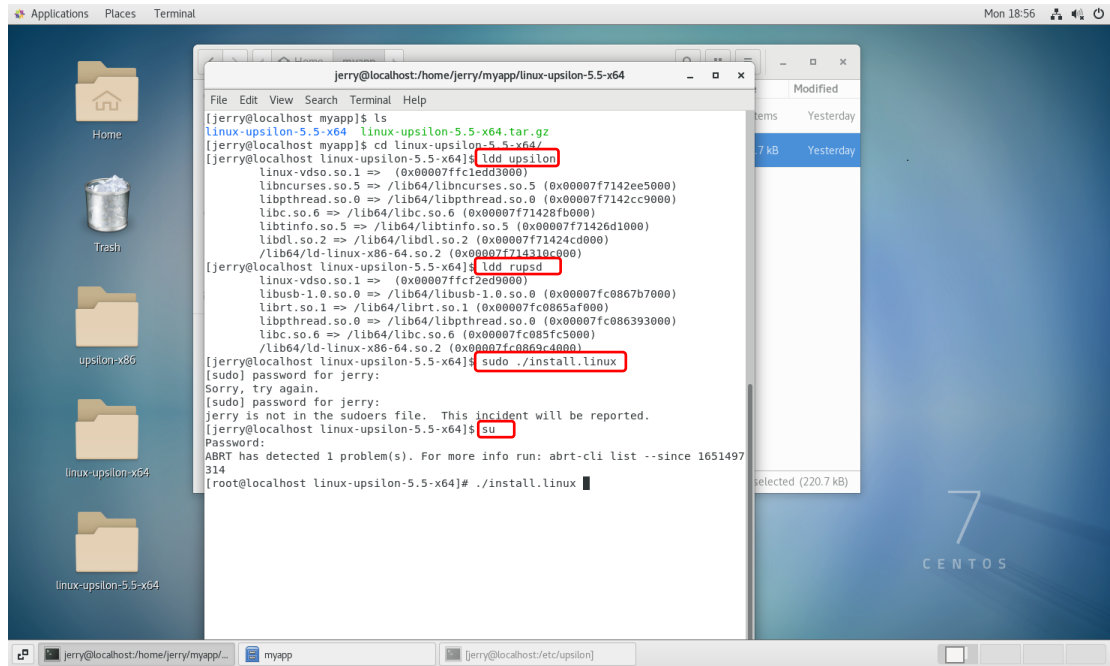


Figure (2)

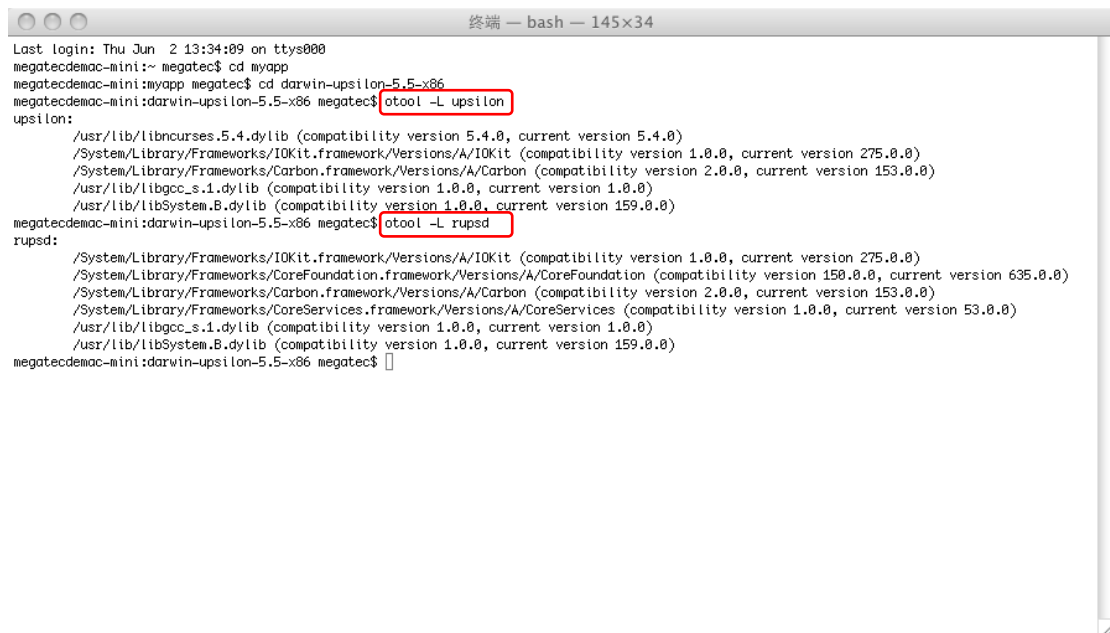


Figure (2-1)

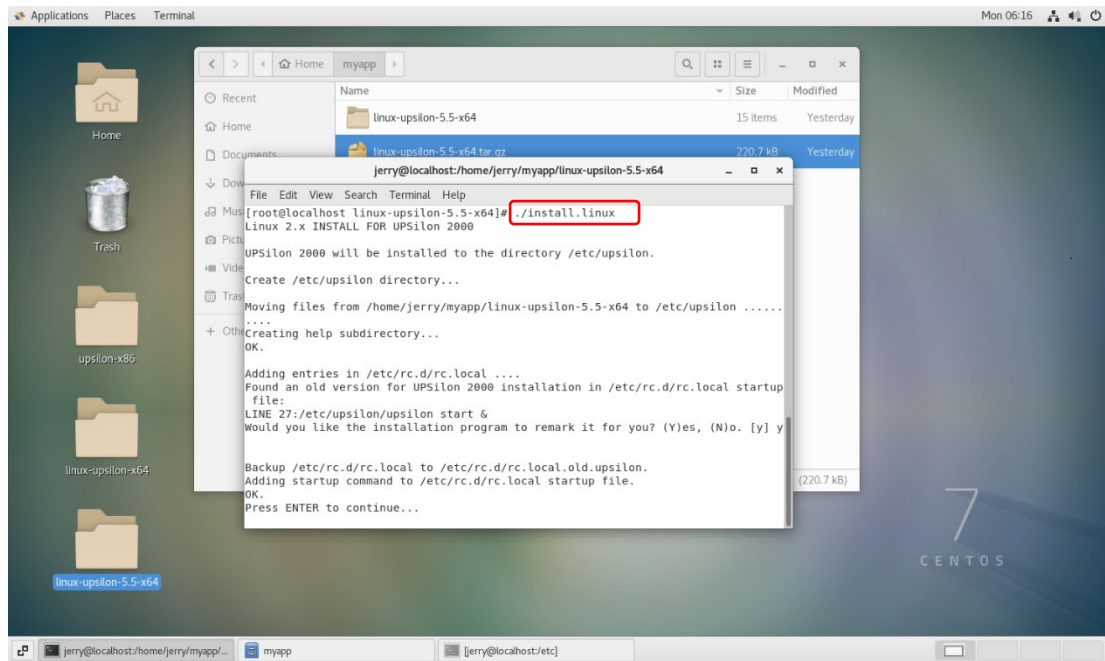


Figure (3)

## 2) : Program Configuration

After the file installation, enter configuration of Upsilon2000. Press the [e] key, the registration window will pop up **Figure (4)**.

Enter the correct CDKey, Email, and Password, move the cursor to "OK", press "Enter" to save and exit.

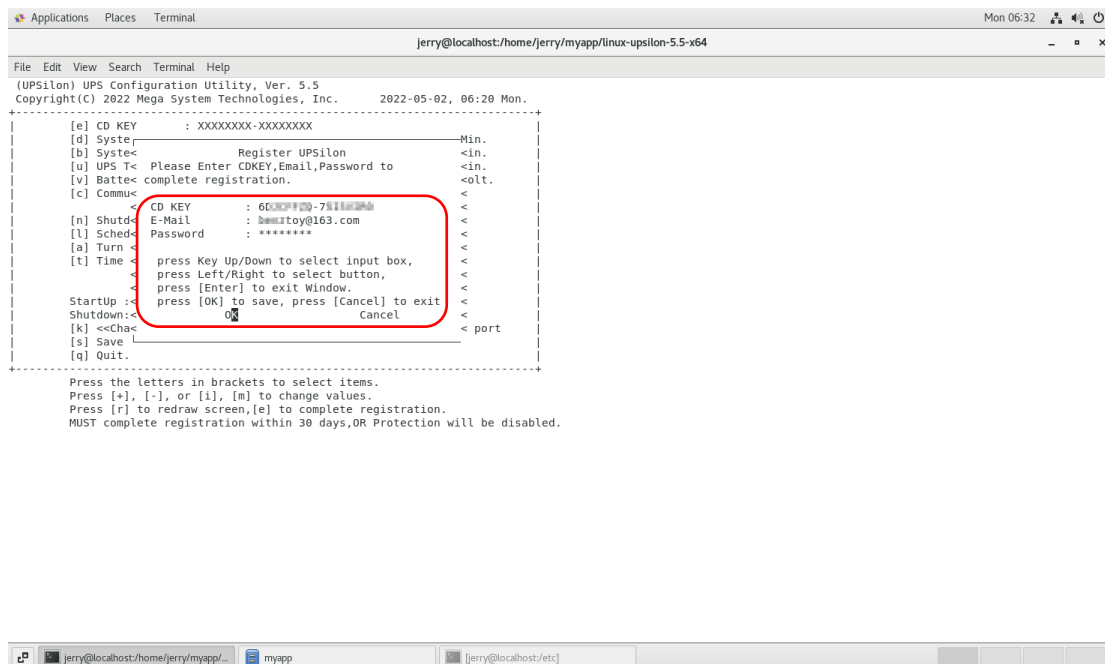
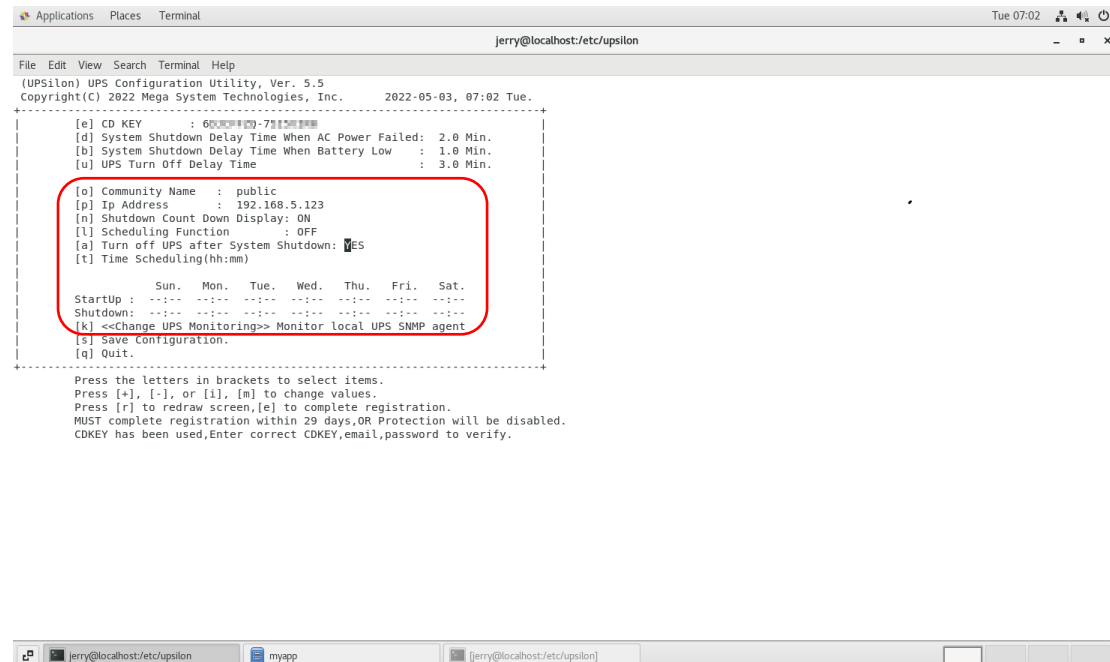


Figure (4)

Continue to complete the configuration of other parameters. The UPS can be connected to the communication port by “hid”, “/dev/ttyS0”, and “/dev/ttyS1”. You can also use upsilon to monitor NetAgent by press [k], **Figure (5)**.



```

Applications  Places  Terminal
Tue 07:02
jerry@localhost:/etc/upsilon

(UPSilon) UPS Configuration Utility, Ver. 5.5
Copyright(C) 2022 Mega System Technologies, Inc. 2022-05-03, 07:02 Tue.

[e] CD KEY : 60000000-70000000
[d] System Shutdown Delay Time When AC Power Failed: 2.0 Min.
[b] System Shutdown Delay Time When Battery Low : 1.0 Min.
[u] UPS Turn Off Delay Time : 3.0 Min.

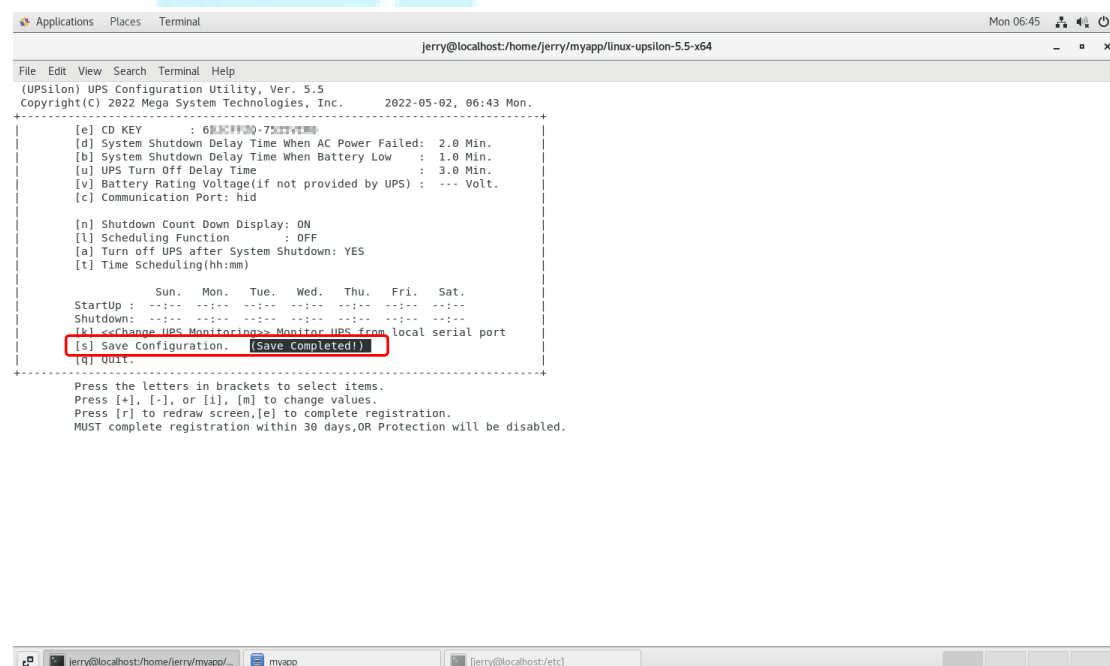
[o] Community Name : public
[p] Ip Address : 192.168.5.123
[n] Shutdown Count Down Display: ON
[l] Scheduling Function : OFF
[a] Turn off UPS after System Shutdown: YES
[t] Time Scheduling(hh:mm)

Sun. Mon. Tue. Wed. Thu. Fri. Sat.
StartUp : --:-- --:-- --:-- --:-- --:-- --:-- --:--
Shutdown: --:-- --:-- --:-- --:-- --:-- --:-- --:--
[k] <<Change UPS Monitoring>> Monitor local UPS SNMP agent
[s] Save Configuration.
[q] Quit.

Press the letters in brackets to select items.
Press [+], [-], or [i], [m] to change values.
Press [r] to redraw screen,[e] to complete registration.
MUST complete registration within 29 days,OR Protection will be disabled.
CDKEY has been used,Enter correct CDKEY,email,password to verify.
  
```

**Figure (5)**

After the parameter configuration is completed, Press [s] to save, [q] to exit the configuration **Figure (6)**.



```

Applications  Places  Terminal
Mon 06:45
jerry@localhost:/home/jerry/myapp/linux-upsilon-5.5-x64

(UPSilon) UPS Configuration Utility, Ver. 5.5
Copyright(C) 2022 Mega System Technologies, Inc. 2022-05-02, 06:43 Mon.

[e] CD KEY : 60000000-70000000
[d] System Shutdown Delay Time When AC Power Failed: 2.0 Min.
[b] System Shutdown Delay Time When Battery Low : 1.0 Min.
[u] UPS Turn Off Delay Time : 3.0 Min.
[v] Battery Rating Voltage(if not provided by UPS) : --- Volt.
[c] Communication Port: hid

[n] Shutdown Count Down Display: ON
[l] Scheduling Function : OFF
[a] Turn off UPS after System Shutdown: YES
[t] Time Scheduling(hh:mm)

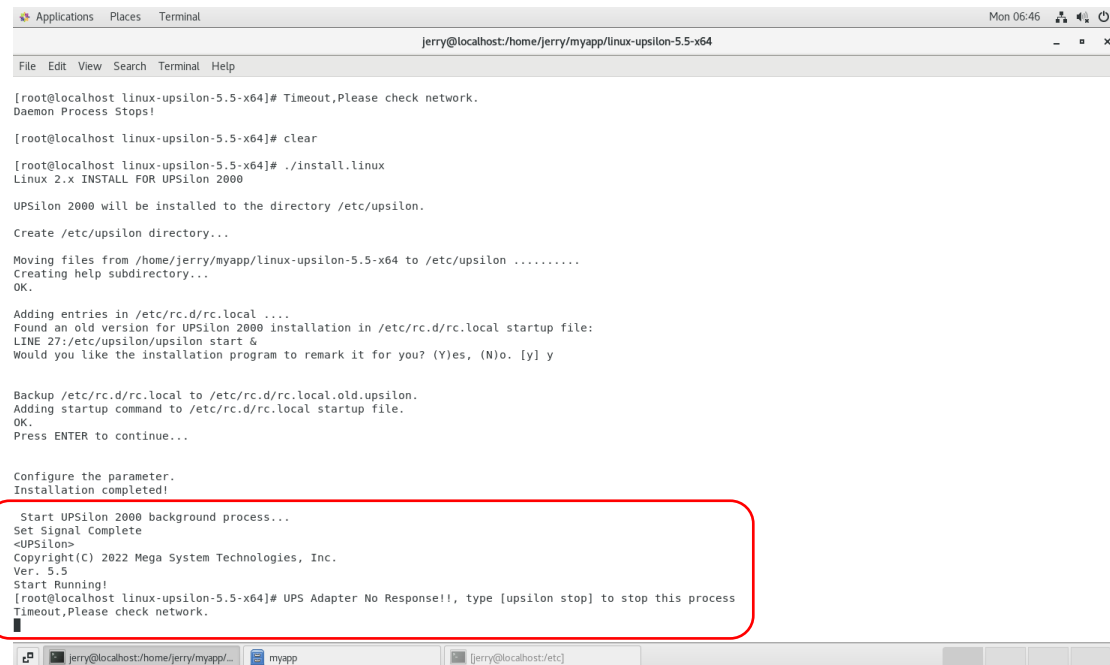
Sun. Mon. Tue. Wed. Thu. Fri. Sat.
StartUp : --:-- --:-- --:-- --:-- --:-- --:-- --:--
Shutdown: --:-- --:-- --:-- --:-- --:-- --:-- --:--
[k] <<Change UPS Monitoring>> Monitor UPS from local serial port
[s] Save Configuration. (Save Completed!)
[q] Quit.

Press the letters in brackets to select items.
Press [+], [-], or [i], [m] to change values.
Press [r] to redraw screen,[e] to complete registration.
MUST complete registration within 30 days,OR Protection will be disabled.
  
```

**Figure (6)**

### 3): Connect UPS

After configuration finished **Figure (7)**, please connect UPS to USB port of computer, and ensure that UPS is connected successfully.



```
[root@localhost linux-upsilon-5.5-x64]# Timeout, Please check network.
Daemon Process Stops!

[root@localhost linux-upsilon-5.5-x64]# clear

[root@localhost linux-upsilon-5.5-x64]# ./install.linux
Linux 2.x INSTALL FOR Upsilon 2000

Upsilon 2000 will be installed to the directory /etc/upsilon.

Create /etc/upsilon directory...

Moving files from /home/jerry/myapp/linux-upsilon-5.5-x64 to /etc/upsilon .....
Creating help subdirectory...
OK.

Adding entries in /etc/rc.d/rc.local ....
Found an old version for Upsilon 2000 installation in /etc/rc.d/rc.local startup file:
LINE 27:/etc/upsilon/upsilon start &
Would you like the installation program to remark it for you? (Y)es, (N)o. [y] y

Backup /etc/rc.d/rc.local to /etc/rc.d/rc.local.old.upsilon.
Adding startup command to /etc/rc.d/rc.local startup file.
OK.
Press ENTER to continue...

Configure the parameter.
Installation completed!

Start Upsilon 2000 background process...
Set Signal complete
<Upsilon>
Copyright(C) 2022 Mega System Technologies, Inc.
Ver. 5.5
Start Running!
[root@localhost linux-upsilon-5.5-x64]# UPS Adapter No Response!!, type [upsilon stop] to stop this process
Timeout, Please check network.
```

**Figure (7)**

## 2: Usage

```

[root@localhost ~]# ./upsilon
(One argument needed)
Usage: ./upsilon {start|stop|config|status|issuer|help|password|register}

upsilon start      - Start the Daemon process
upsilon stop       - Terminate Resident Daemon process
upsilon config     - Modify Time Settings
upsilon status     - Monitor UPS status
upsilon issuer     - Send Commands to the UPS
upsilon help       - Display OnLine User Manual
upsilon password   - Forget Register Password
upsilon register   - Register UPSilon

[root@localhost ~]# ./upsilon stop
<UPSilon> is not running!
[root@localhost ~]# ./upsilon start
Set Signal complete
<UPSilon>
Copyright(C) 2022 Mega System Technologies, Inc.
Ver.: 3.5
Start Running!
[root@localhost ~]# UPS Adapter No Response!!, type [upsilon stop] to stop this process
[root@localhost ~]# ./upsilon status
[root@localhost ~]# ./upsilon config
CD Key : 68888888-75888888
Mail : huanmy@163.com
Sending mail(huanmy@163.com) password.
Password sent successfully.
[root@localhost ~]# ./upsilon register
CD Key : 68888888-75888888
Mail : huanmy@163.com
Password: *****
Please wait for 10 secs,register testing...
Update register now...
Update register failed,Email&Password&CDKey incorrect,Press [upsilon config] to complete configuration.

UPS Adapter No Response!!, type [upsilon stop] to stop this process
[root@localhost ~]# ./upsilon config
[root@localhost ~]# ./upsilon register
CD Key : 68888888-75888888
Mail : huanmy@163.com
Password: *****
Please wait for 10 secs,register testing...
Update register now...
Update register successfully.
[root@localhost ~]# UPS Adapter No Response!!, type [upsilon stop] to stop this process
[root@localhost ~]#

```

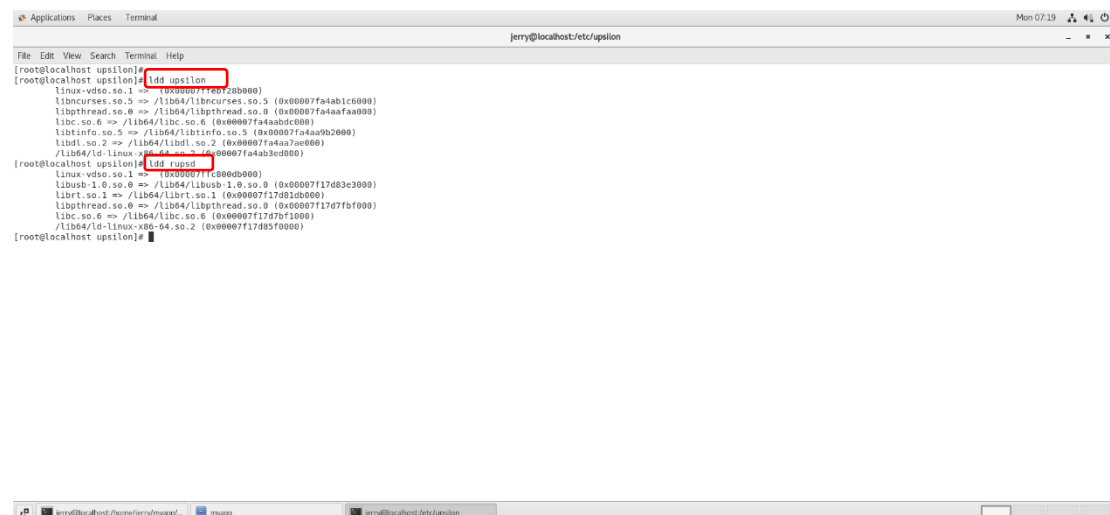
- upsilon start ----- Manually start the upsilon, upsilon is a self-starting daemon process at boot, and can also be started/stopped manually.
- upsilon stop----- Stop UPSilon2000 manually.
- upsilon config ----- Configure parameters of UPSilon2000.
- upsilon status ----- Current upsilon status, input and output voltage, battery capacity, load and other data.
- upsilon issue ----- Send command to UPS manually.
- upsilon help----- Help document.
- upsilon password ----- Retrieve the password, the password will be sent to the registered mailbox.
- upsilon register ----- Registration or update registration.

*Note: A CDKey can only be used on one computer at the same time. When you want to switch computers, you must submit an electronic Email and Password to re-register for use under the new system.*

### 3: Question

#### 1): Dependency Library Missing

Use “ldd” in the directory “/etc/upsilon” to check if dependent libraries are missing. If the “ncurses” library is missing in **Figure (8)**, you can use [apt-get install libncurses5-dev] to install “ncurses” library. If it shows that “libtinfo.so.5” is missing after installation, you can use ln -s can establish a symbolic link to “libtinfo.so.5”, **Figure (9)**.

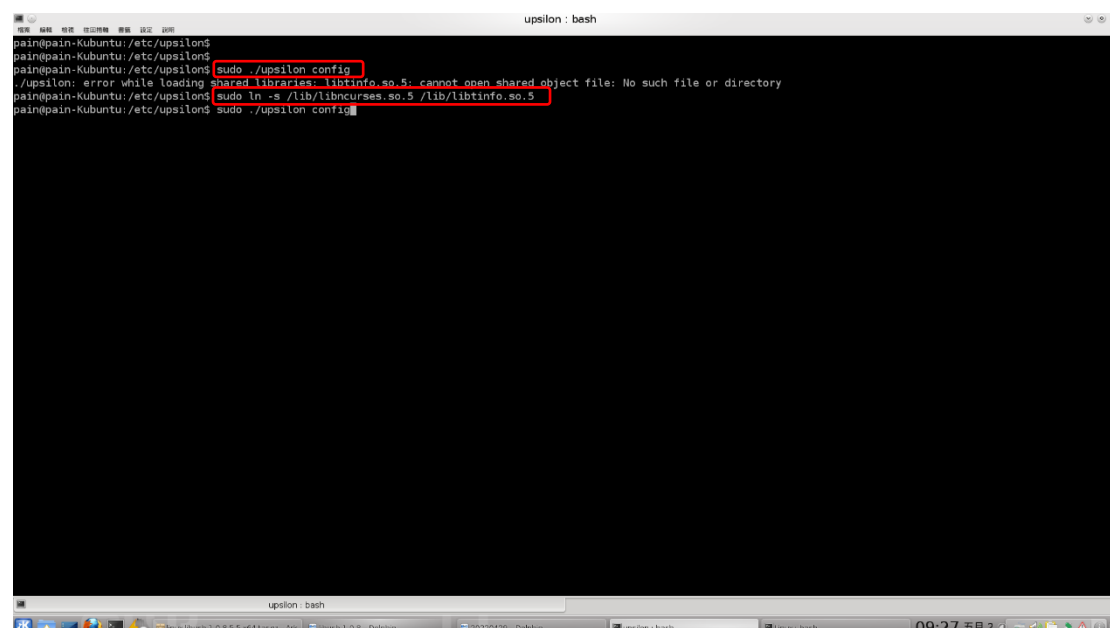


```

File Edit View Search Terminal Help
jerry@localhost: /etc/upsilon
[root@localhost ~]# ldd /etc/upsilon
linux-vdso.so.1 => (0x00007fca3b000000)
libncurses.so.5 => /lib64/libncurses.so.5 (0x00007fa4ab1c0000)
libpthread.so.0 => /lib64/libpthread.so.0 (0x00007fa4aaf00000)
libc.so.6 => /lib64/libc.so.6 (0x00007fa4a9d00000)
libtinfo.so.5 => /lib64/libtinfo.so.5 (0x00007fa4a9b20000)
libdl.so.2 => /lib64/libdl.so.2 (0x00007fa4a7ae0000)
/lib64/ld-linux-x86-64.so.2 (0x00007fa4a3c00000)
[root@localhost ~]# ldd /etc/upsilon
linux-vdso.so.1 => (0x00007fca3b000000)
libusb-1.0.so.0 => /lib64/libusb-1.0.so.0 (0x00007f17d83c3000)
librt.so.1 => /lib64/librt.so.1 (0x00007f17d810b000)
libpthread.so.0 => /lib64/libpthread.so.0 (0x00007f17d7fbf000)
libc.so.6 => /lib64/libc.so.6 (0x00007f17d7b10000)
/lib64/ld-linux-x86-64.so.2 (0x00007f17d85f0000)
[root@localhost ~]#

```

Figure (8)



```

upsilon : bash
pain@pain-Kubuntu: /etc/upsilon$
pain@pain-Kubuntu: /etc/upsilon$
pain@pain-Kubuntu: /etc/upsilon$ sudo ./upsilon config
./upsilon: error while loading shared libraries: libtinfo.so.5: cannot open shared object file: No such file or directory
pain@pain-Kubuntu: /etc/upsilon$ sudo ln -s /lib/libncurses.so.5 /lib/libtinfo.so.5
pain@pain-Kubuntu: /etc/upsilon$ sudo ./upsilon config

```

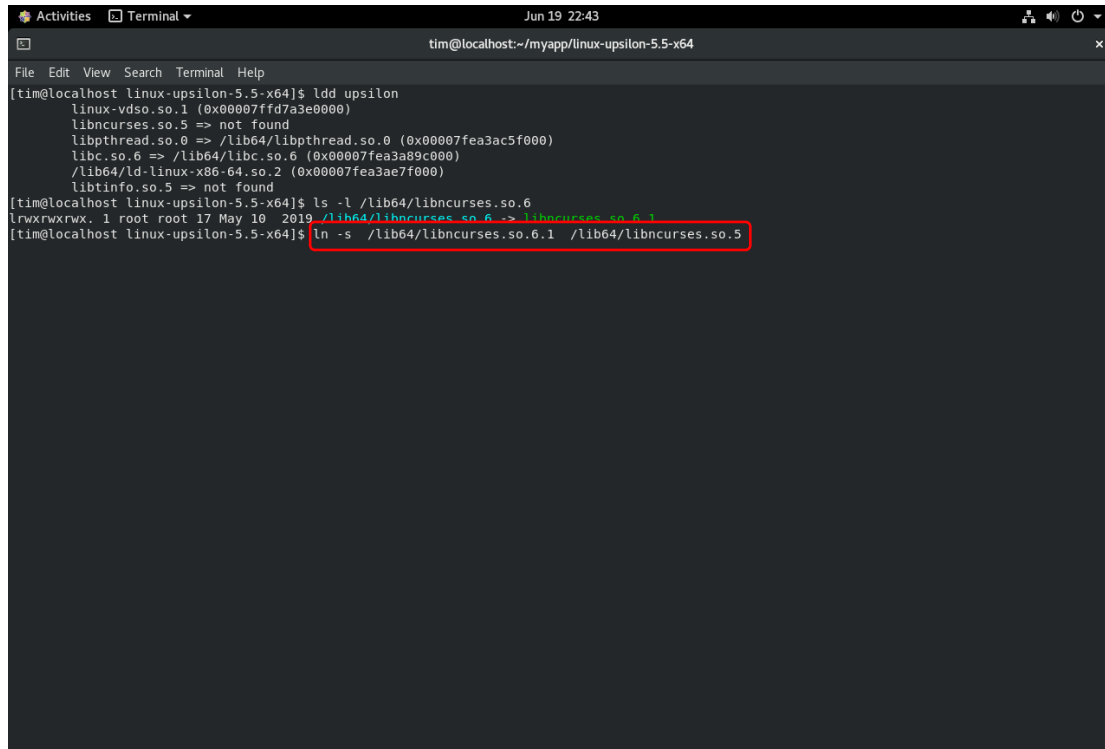
Figure (9)





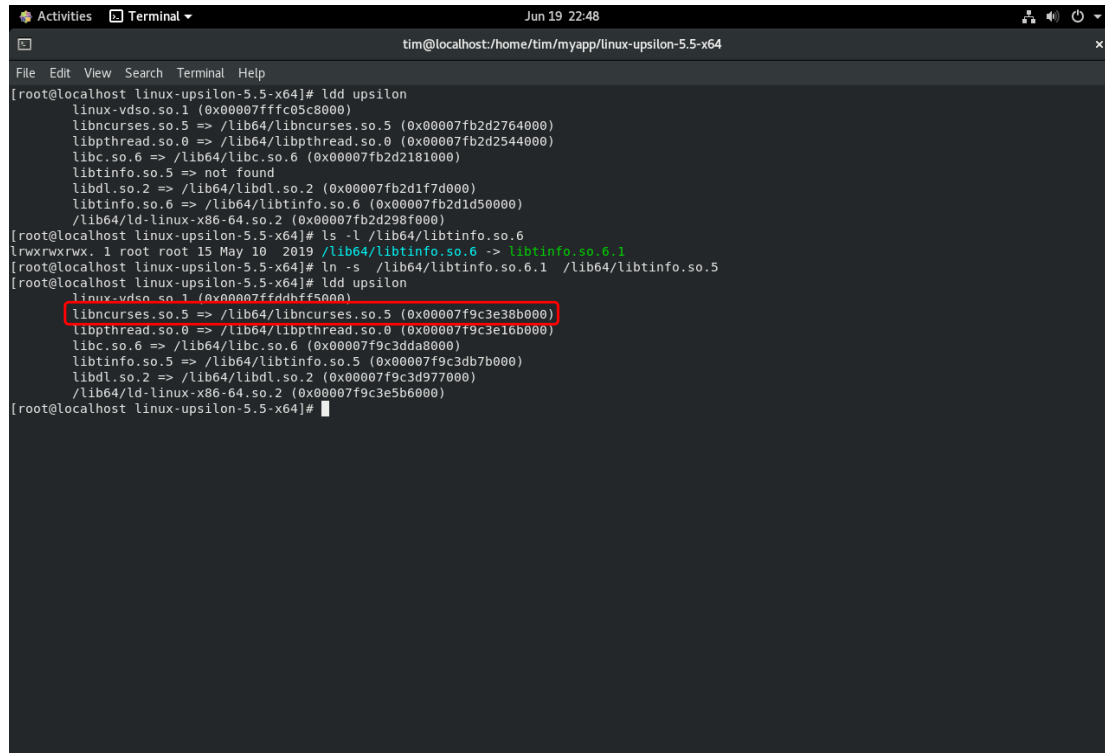
### 3) Dependency Library Mismatch

On some systems, “libncurses” has been upgraded to version 6.0. We can also manually create a soft link to version 5.0 of the “ncurses” library using the shell command “ln”. **Figure (11) / (12) / (13)**

A terminal window titled 'tim@localhost:~/myapp/linux-upsilon-5.5-x64' showing the output of the 'ldd' command for 'upsilon'. The output lists various shared libraries, including 'libncurses.so.5' which is marked as 'not found'. Below this, the user runs 'ls -l /lib64/libncurses.so.6', showing the file details for 'lib64/libncurses.so.6'. Finally, the user runs 'ln -s /lib64/libncurses.so.6.1 /lib64/libncurses.so.5', which is highlighted with a red box in the original image.

```
tim@localhost linux-upsilon-5.5-x64$ ldd upsilon
linux-vdso.so.1 (0x00007ffd7a3e0000)
libncurses.so.5 => not found
libpthread.so.0 => /lib64/libpthread.so.0 (0x00007fea3ac5f000)
libc.so.6 => /lib64/libc.so.6 (0x00007fea3a89c000)
/lib64/ld-linux-x86-64.so.2 (0x00007fea3ae7f000)
libtinfo.so.5 => not found
tim@localhost linux-upsilon-5.5-x64$ ls -l /lib64/libncurses.so.6
lrwxrwxrwx. 1 root root 17 May 10 2019 /lib64/libncurses.so.6 -> libncurses.so.6.1
tim@localhost linux-upsilon-5.5-x64$ ln -s /lib64/libncurses.so.6.1 /lib64/libncurses.so.5
```

Figure (11)

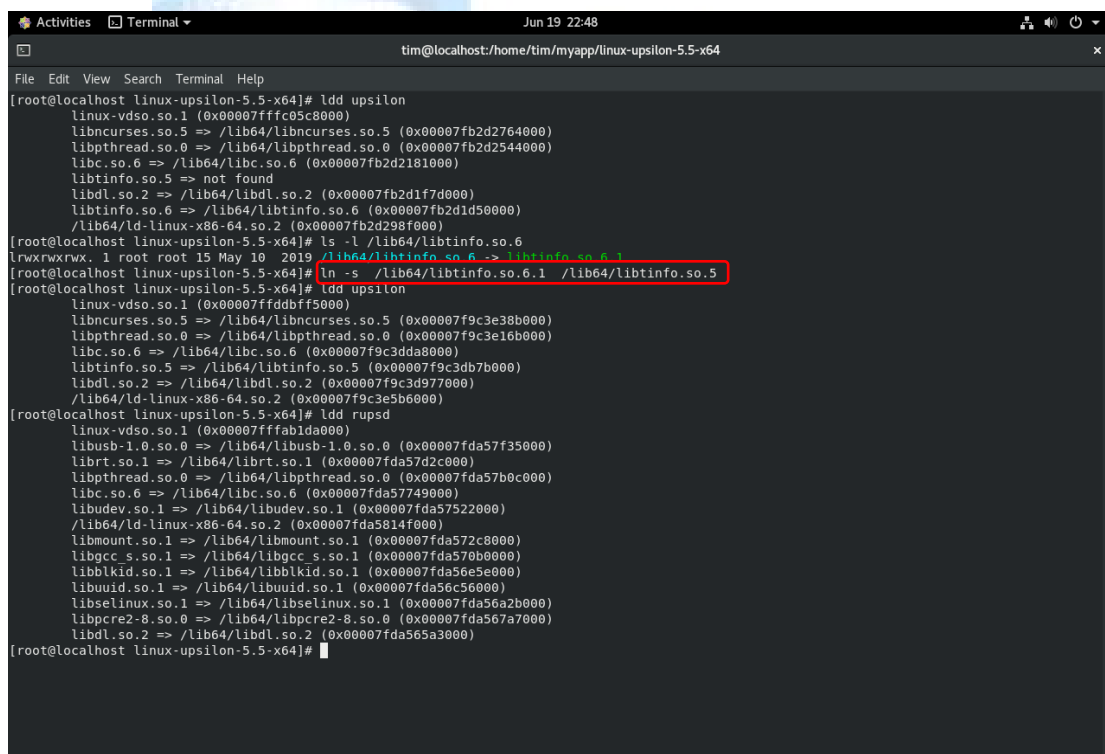


```

[root@localhost linux-upsilon-5.5-x64]# ldd upsilon
linux-vdso.so.1 (0x0000ffffc05c8000)
libncurses.so.5 => /lib64/libncurses.so.5 (0x00007fb2d2764000)
libpthread.so.0 => /lib64/libpthread.so.0 (0x00007fb2d2544000)
libc.so.6 => /lib64/libc.so.6 (0x00007fb2d2181000)
libtinfo.so.5 => not found
libdl.so.2 => /lib64/libdl.so.2 (0x00007fb2d1f7d000)
libtinfo.so.6 => /lib64/libtinfo.so.6 (0x00007fb2d1d50000)
/lib64/ld-linux-x86-64.so.2 (0x00007fb2d298f000)
[root@localhost linux-upsilon-5.5-x64]# ls -l /lib64/libtinfo.so.6
lrwxrwxrwx. 1 root root 15 May 10 2019 /lib64/libtinfo.so.6 -> libtinfo.so.6.1
[root@localhost linux-upsilon-5.5-x64]# ln -s /lib64/libtinfo.so.6.1 /lib64/libtinfo.so.5
[root@localhost linux-upsilon-5.5-x64]# ldd upsilon
linux-vdso.so.1 (0x00007ffddhff5000)
libncurses.so.5 => /lib64/libncurses.so.5 (0x00007f9c3e38b000)
libpthread.so.0 => /lib64/libpthread.so.0 (0x00007f9c3e16b000)
libc.so.6 => /lib64/libc.so.6 (0x00007f9c3dda8000)
libtinfo.so.5 => /lib64/libtinfo.so.5 (0x00007f9c3db7b000)
libdl.so.2 => /lib64/libdl.so.2 (0x00007f9c3d977000)
/lib64/ld-linux-x86-64.so.2 (0x00007f9c3e5b6000)
[root@localhost linux-upsilon-5.5-x64]#

```

Figure (12)



```

[root@localhost linux-upsilon-5.5-x64]# ldd upsilon
linux-vdso.so.1 (0x0000ffffc05c8000)
libncurses.so.5 => /lib64/libncurses.so.5 (0x00007fb2d2764000)
libpthread.so.0 => /lib64/libpthread.so.0 (0x00007fb2d2544000)
libc.so.6 => /lib64/libc.so.6 (0x00007fb2d2181000)
libtinfo.so.5 => not found
libdl.so.2 => /lib64/libdl.so.2 (0x00007fb2d1f7d000)
libtinfo.so.6 => /lib64/libtinfo.so.6 (0x00007fb2d1d50000)
/lib64/ld-linux-x86-64.so.2 (0x00007fb2d298f000)
[root@localhost linux-upsilon-5.5-x64]# ls -l /lib64/libtinfo.so.6
lrwxrwxrwx. 1 root root 15 May 10 2019 /lib64/libtinfo.so.6 -> libtinfo.so.6.1
[root@localhost linux-upsilon-5.5-x64]# ln -s /lib64/libtinfo.so.6.1 /lib64/libtinfo.so.5
[root@localhost linux-upsilon-5.5-x64]# ldd upsilon
linux-vdso.so.1 (0x00007ffddhff5000)
libncurses.so.5 => /lib64/libncurses.so.5 (0x00007f9c3e38b000)
libpthread.so.0 => /lib64/libpthread.so.0 (0x00007f9c3e16b000)
libc.so.6 => /lib64/libc.so.6 (0x00007f9c3dda8000)
libtinfo.so.5 => /lib64/libtinfo.so.5 (0x00007f9c3db7b000)
libdl.so.2 => /lib64/libdl.so.2 (0x00007f9c3d977000)
/lib64/ld-linux-x86-64.so.2 (0x00007f9c3e5b6000)
[root@localhost linux-upsilon-5.5-x64]# ldd rupsd
linux-vdso.so.1 (0x0000fffffab1da000)
libusb-1.0.so.0 => /lib64/libusb-1.0.so.0 (0x00007fda57f35000)
librt.so.1 => /lib64/librt.so.1 (0x00007fda57d2c000)
libpthread.so.0 => /lib64/libpthread.so.0 (0x00007fda57b0c000)
libc.so.6 => /lib64/libc.so.6 (0x00007fda57749000)
libudev.so.1 => /lib64/libudev.so.1 (0x00007fda57522000)
/lib64/ld-linux-x86-64.so.2 (0x00007fda5814f000)
libmount.so.1 => /lib64/libmount.so.1 (0x00007fda572c8000)
libgcc_s.so.1 => /lib64/libgcc_s.so.1 (0x00007fda570b0000)
libblkid.so.1 => /lib64/libblkid.so.1 (0x00007fda56e5e000)
libuuid.so.1 => /lib64/libuuid.so.1 (0x00007fda56c56000)
libselinux.so.1 => /lib64/libselinux.so.1 (0x00007fda56a2b000)
libpcrc2-8.so.0 => /lib64/libpcrc2-8.so.0 (0x00007fda567a7000)
libdl.so.2 => /lib64/libdl.so.2 (0x00007fda565a3000)
[root@localhost linux-upsilon-5.5-x64]#

```

Figure (13)