

NAS 汉字

测试你用 Acadia 或 RPi 或 WRTnode 做的 NAS 在 SAMBA、sftp、NFS 和 DLNA 上对汉字路径名、文件名的兼容情况，并作出解决方案。

实现目的

1. 了解 Acadia 或 RPi 或 WRTnode 对字符集的支持情况；
2. 了解 Acadia 或 RPi 或 WRTnode 下对汉字兼容性的解决方案。

实验器材

硬件

- Acadia 或 RPi 或 WRTnode 板一块；
- 5V/1A 电源一个；
- microUSB 线一根；
- USB-TTL 串口线一根（FT232RL 芯片或 PL2303 芯片）。

以下为自备（可选）器材：

- PC（Windows/Mac OS/Linux）一台；
- 以太网线一根（可能还需要路由器等）。

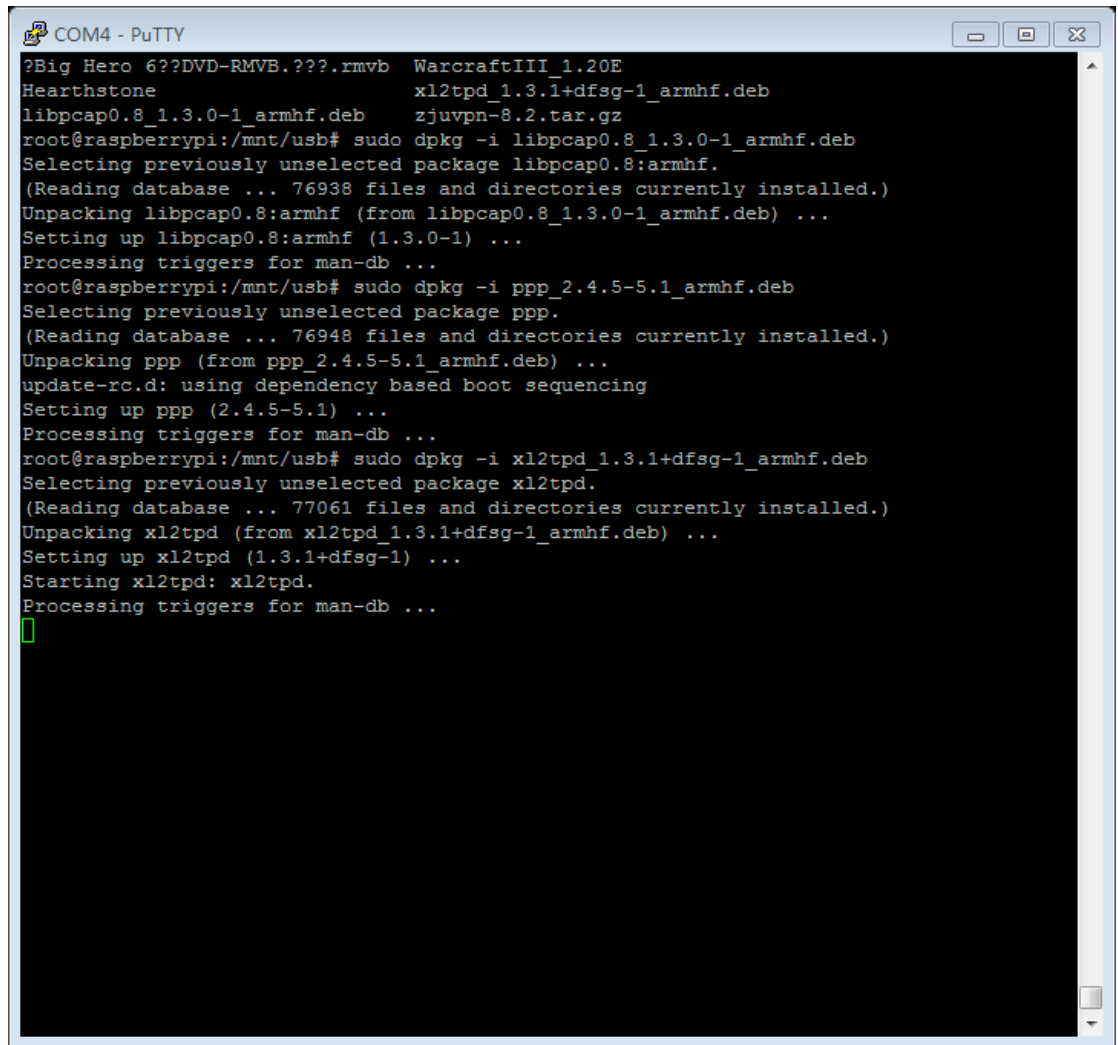
软件

- PC 上的 USB-TTL 串口线配套的驱动程序；
- PC 上的串口终端软件，如 minicom、picocom、putty 等；
- PC 上的 SSH 软件，如 putty 等。

实验步骤

1. 测试 SAMBA、sftp、NFS 和 DLNA 上对汉字路径名的兼容情况；
2. 测试 SAMBA、sftp、NFS 和 DLNA 上对汉字文件名的兼容情况；

对汉字文件名和路径名不兼容，如图所示，Big Hero 6 的中文名部分为问号。



```
COM4 - PuTTY
?Big Hero 6??DVD-RMVB.???.rmvb  WarcraftIII_1.20E
Hearthstone                      xl2tpd_1.3.1+dfsg-1_armhf.deb
libpcap0.8_1.3.0-1_armhf.deb      zjuvpn-8.2.tar.gz
root@raspberrypi:/mnt/usb# sudo dpkg -i libpcap0.8_1.3.0-1_armhf.deb
Selecting previously unselected package libpcap0.8:armhf.
(Reading database ... 76938 files and directories currently installed.)
Unpacking libpcap0.8:armhf (from libpcap0.8_1.3.0-1_armhf.deb) ...
Setting up libpcap0.8:armhf (1.3.0-1) ...
Processing triggers for man-db ...
root@raspberrypi:/mnt/usb# sudo dpkg -i ppp_2.4.5-5.1_armhf.deb
Selecting previously unselected package ppp.
(Reading database ... 76948 files and directories currently installed.)
Unpacking ppp (from ppp_2.4.5-5.1_armhf.deb) ...
update-rc.d: using dependency based boot sequencing
Setting up ppp (2.4.5-5.1) ...
Processing triggers for man-db ...
root@raspberrypi:/mnt/usb# sudo dpkg -i xl2tpd_1.3.1+dfsg-1_armhf.deb
Selecting previously unselected package xl2tpd.
(Reading database ... 77061 files and directories currently installed.)
Unpacking xl2tpd (from xl2tpd_1.3.1+dfsg-1_armhf.deb) ...
Setting up xl2tpd (1.3.1+dfsg-1) ...
Starting xl2tpd: xl2tpd.
Processing triggers for man-db ...
█
```

3. 寻找不兼容问题的解决方案。

在进行 NAS 的搭建实验的时候，通过编辑

```
sudo nano /etc/udev/rules.d/10-usbstorage.rules
```

COM4 - PuTTY

pi.avi zjuvpn-8.2.tar.gz

pi.jpeg

ulesaspberrypi:/media/Untitled-sda1\$ sudo nano /etc/udev/rules.d/10-usbstorage.r

GNU nano 2.2.6 File: /etc/udev/rules.d/10-usbstorage.rules

```

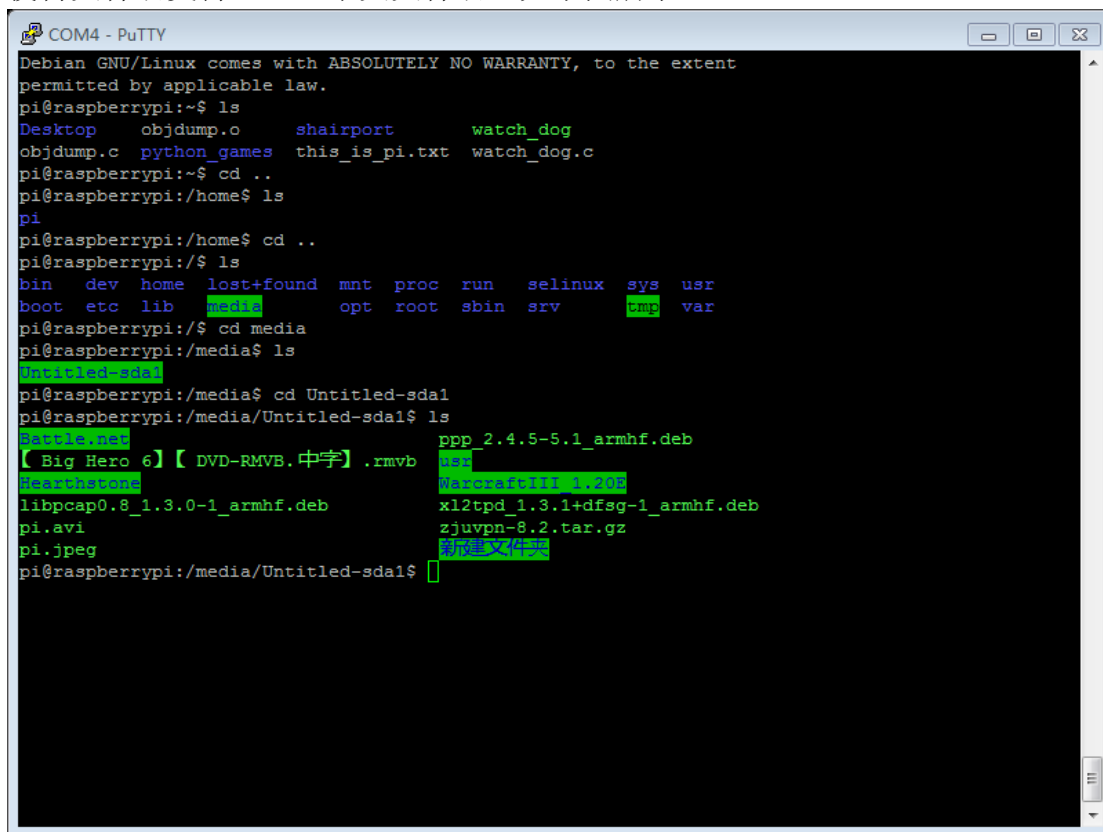
[ KERNEL!="sd*", GOTO="media_by_label_auto_mount_end"
  SUBSYSTEM!="block",GOTO="media_by_label_auto_mount_end"
  IMPORT{program}="/sbin/blkid -o udev -p %N"
  ENV{ID_FS_TYPE}=="", GOTO="media_by_label_auto_mount_end"
  ENV{ID_FS_LABEL}!="", ENV{dir_name}="%E{ID_FS_LABEL}"
  ENV{ID_FS_LABEL}=="", ENV{dir_name}="Untitled-%k"
  ACTION=="add", ENV{mount_options}="relatime,sync"
  ACTION=="add", ENV{ID_FS_TYPE}=="vfat", ENV{mount_options}="iocharset=utf8,$
  ACTION=="add", ENV{ID_FS_TYPE}=="ntfs", ENV{mount_options}="iocharset=utf8,$
  ACTION=="add", RUN+="/bin/mkdir -p /media/%E{dir_name}", RUN+="/bin/mount -$

  ACTION=="remove", ENV{dir_name}!="", RUN+="/bin/umount -l /media/%E{dir_nam$
  LABEL="media_by_label_auto_mount_end"
```

[Read 13 lines]

^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell

使得文件名支持 utf-8 中文文件名，如下图所示



```
COM4 - PuTTY
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
pi@raspberrypi:~$ ls
Desktop  objdump.o  shairport  watch_dog
objdump.c  python_games  this_is_pi.txt  watch_dog.c
pi@raspberrypi:~$ cd ..
pi@raspberrypi:/home$ ls
pi
pi@raspberrypi:/home$ cd ..
pi@raspberrypi:/ $ ls
bin  dev  home  lost+found  mnt  proc  run  selinux  sys  usr
boot  etc  lib  media  opt  root  sbin  srv  tmp  var
pi@raspberrypi:/ $ cd media
pi@raspberrypi:/media$ ls
Untitled-sda1
pi@raspberrypi:/media$ cd Untitled-sda1
pi@raspberrypi:/media/Untitled-sda1$ ls
Battle.net  ppp_2.4.5-5.1_armhf.deb
【 Big Hero 6】【 DVD-RMVB.中字】.rmvb  test
NearChstone  WarcraftIII 1.20E
libpcap0.8_1.3.0-1_armhf.deb  xl2tpd_1.3.1+dfsg-1_armhf.deb
pi.avi  zjuvpn-8.2.tar.gz
pi.jpeg  新建文件夹
pi@raspberrypi:/media/Untitled-sda1$
```