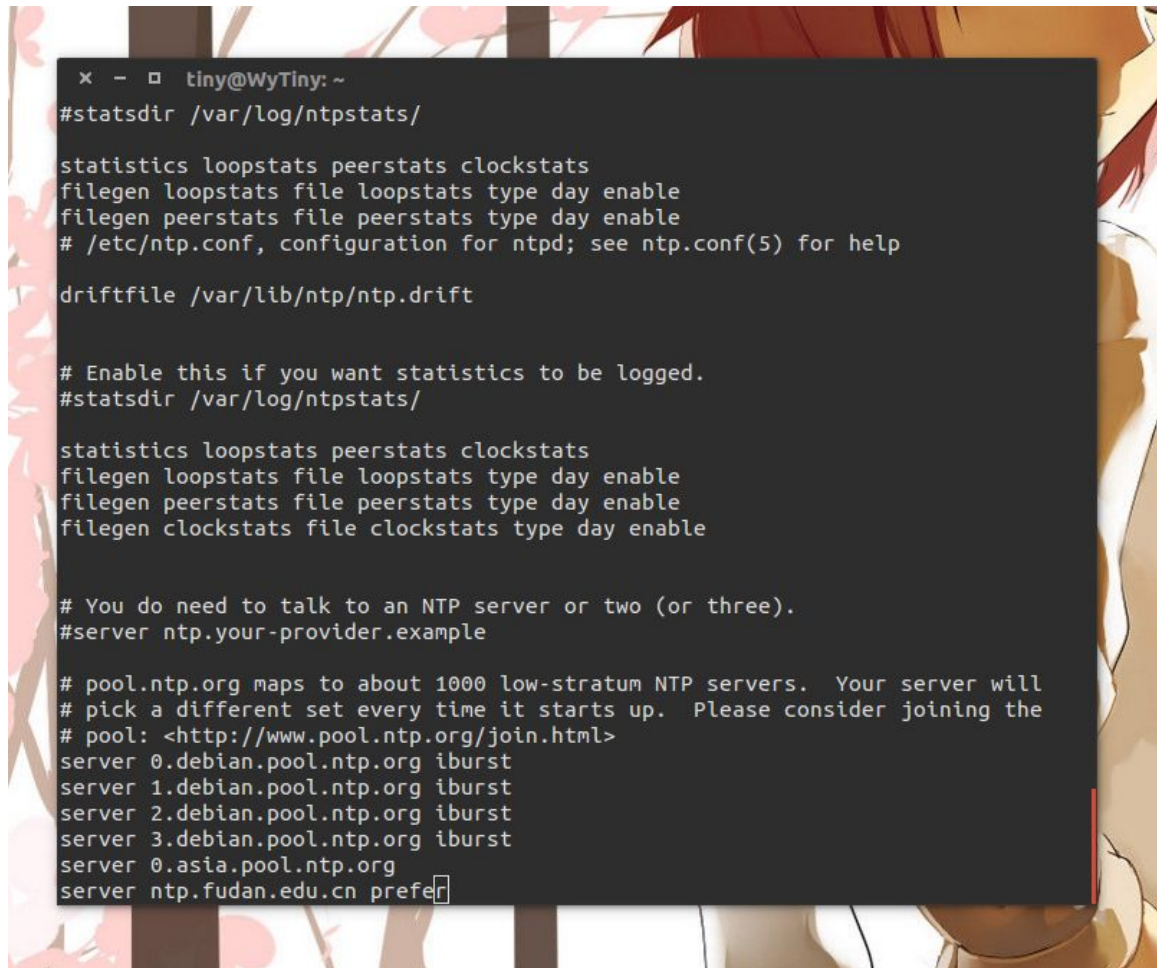# Task15.Start a NTP Server on RPi

Time 3/22 2015 By WangYi (3120101996) Email:zjutiny@gmail.com

At first serial port to log in the system and modify /etc/ntp.conf (ntp has been installed already)
In case of wrong configuration, we'd better back the file up before the experiment.

Add server lists to the file.
Ntp.fudan.edu.cn can be a good choice for us, so I labeled it as "prefer".

Then allow all PCs in the same LAN to update time from the server .
with : restrict 192.168.16.0 mask 255.255.255.0 (the local ip of devices in our room are in the form of 192.168.16.XXX)

It's has the same effect as adding the line: boardcast 192.168.16.255

```
×  −  □    tiny@WyTiny: ~
server 3.debian.pool.ntp.org iburst
server 0.asia.pool.ntp.org
server ntp.fudan.edu.cn prefer

# Access control configuration; see /usr/share/doc/ntp-doc/html/accopt.html for
# details.  The web page <http://support.ntp.org/bin/view/Support/AccessRestrict
ions>
# might also be helpful.
#
# Note that "restrict" applies to both servers and clients, so a configuration
# that might be intended to block requests from certain clients could also end
# up blocking replies from your own upstream servers.

# By default, exchange time with everybody, but don't allow configuration.
restrict -4 default kod notrap nomodify nopeer noquery
restrict -6 default kod notrap nomodify nopeer noquery

# Local users may interrogate the ntp server more closely.
restrict 127.0.0.1
restrict ::1
restrict 192.168.16.0 mask 255.255.255.0

# Clients from this (example!) subnet have unlimited access, but only if
                                                        43,41           65%
```

Statsdir /var/log/ntp   #set the log path
Statsdir /var/log/ntp/ntp.log   #set the log file

Then restart the service

```
x  -  □   tiny@WyTiny: ~
# Clients from this (example!) subnet have unlimited access, but only if
# cryptographically authenticated.
#restrict 192.168.123.0 mask 255.255.255.0 notrust


# If you want to provide time to your local subnet, change the next line.
# (Again, the address is an example only.)
#broadcast 192.168.123.255

# If you want to listen to time broadcasts on your local subnet, de-comment th
# next lines.  Please do this only if you trust everybody on the network!
#disable auth
#broadcastclient

statsdir /var/log/ntp

logfile /var/log/ntp/ntp.log
"ntp.conf" 61L, 2140C written
root@raspberrypi:/etc# service ntpd restart
ntpd: unrecognized service
root@raspberrypi:/etc# service ntp restart
Stopping NTP server: ntpd.
Starting NTP server: ntpd.
root@raspberrypi:/etc#
                              英 C o9 ⚙
```

Get current device ip in the LAN : 192.168.16.113

Using PC to update time through the server:
Sudo ntpdate 192.168.16.113

Got the output:


```
x  -  □   tiny@WyTiny: ~
tiny@WyTiny:~$ sudo ntpdate 192.168.16.113
[sudo] password for tiny:
22 Mar 21:55:57 ntpdate[12467]: step time server 192.168.16.113 offset -0.603404
 sec
tiny@WyTiny:~$ ▯
```