

Main: PowerPMAC

Setting up Network and NTP and adding packages

Setup network interface and PMAC hostname:

```
mount -o remount,rw /

### Setup network interface (replace with your PowerPMAC IP address/gateway/netmask as needed):
nano /etc/network/interfaces
iface eth0 inet static
address 192.168.1.64
netmask 255.255.255.0
gateway 192.168.1.1

### Provide name of your PMAC instead of pmac1
nano /etc/hostname
pmac1

### Copy the changed files to the master location
cp -p /.readonly/etc-tmpfs-mirror/network/interfaces /.readonly/etc/network/
cp -p /.readonly/etc-tmpfs-mirror/hostname /.readonly/etc/
```

NOTE: If the above files also exist in opt/etc/ (/opt/vfat/etc/), they may override the above settings. Therefore, delete them:

```
mount -o remount,rw /opt/vfat
rm /opt/vfat/etc/hostname
rm /opt/vfat/etc/network/interfaces
mount -o remount,ro /opt/vfat
```

Add the "ll" alias for convenience:

```
nano /etc/bash.bashrc
alias ll='ls -alF --group-directories-first'

cp -p /.readonly/etc-tmpfs-mirror/bash.bashrc /.readonly/etc/
```

Download and install some needed packages:

```
wget http://archive.debian.org/debian/pool/main/d/debian-archive-keyring/debian-archive-keyring_2017.5~deb8u1_all.deb
wget http://archive.debian.org/debian/pool/main/a/autogen/libopts25_5.18.4-3_armhf.deb
wget http://archive.debian.org/debian/pool/main/n/ntp/ntp_4.2.6.p5+dfsg-7+deb8u2_armhf.deb
wget http://archive.debian.org/debian/pool/main/s/screen/screen_4.2.1-3+deb8u1_armhf.deb
wget http://archive.debian.org/debian/pool/main/l/less/less_458-3_armhf.deb

cp -p /.readonly/root-tmpfs-mirror/*.deb /.readonly/root/

dpkg --install ./debian-archive-keyring_2017.5~deb8u1_all.deb
dpkg --install ./libopts25_5.18.4-3_armhf.deb
dpkg --install ./ntp_4.2.6.p5+dfsg-7+deb8u2_armhf.deb
dpkg --install ./screen_4.2.1-3+deb8u1_armhf.deb
dpkg --install ./less_458-3_armhf.deb

cp -p /.readonly/etc-tmpfs-mirror/screenrc /.readonly/etc/
cp -p /.readonly/etc-tmpfs-mirror/init.d/screen-cleanup /.readonly/etc/init.d/
cp -p /.readonly/etc-tmpfs-mirror/rcS.d/S14screen-cleanup /.readonly/etc/rcS.d/
```

Setup apt-get:

```
nano /etc/apt/sources.list
deb http://archive.debian.org/debian/ jessie main non-free contrib
deb http://archive.debian.org/debian-security/ jessie/updates main non-free contrib

### This is for bypassing the firewall proxy which may block old user agents:
nano /etc/apt/apt.conf.d/30proxy
Acquire::http::User-Agent "Mozilla/5.0 (X11; Ubuntu; Linux x86; rv:109.0) Gecko/20100101 Firefox/114.0";

cp -p /.readonly/etc-tmpfs-mirror/apt/sources.list /.readonly/etc/apt/
```

```
cp -p /.readonly/etc-tmpfs-mirror/apt/apt.conf.d/30proxy /.readonly/etc/apt/apt.conf.d/
```

```
### Even the latest 2017.5 keyring which manually setup above has expired and
### there is no newer one available. So, we need to use one of the 3 options:
### 1. Manual installation. Download and unpack:
###    http://archive.debian.org/debian/dists/jessie/main/binary-armhf/Packages.gz
###    Then, look for the download path to needed package in Packages.
### 2. Try Flexian Extended-Long-Time release (see instructions there):
###    https://www.freexian.com/lts/extended/docs/how-to-use-extended-lts/
### 3. Temporarily change the date to the time when the 2017.5 keyring was valid:
###    service ntp stop
###    date --set 2020-01-01
###    apt-get update
###    apt-get install mc
###    service ntp start
```

```
### With any of the above options copy the files added/changed by installation
### to /.readonly/etc and /.readonly/var (like in examples below)
### It can be easily done with the help of mc installed by apt-get.
```

Setup ntp (use your NTP servers instead of the ones below):

```
nano /etc/ntp.conf
server s23dserv-vm.gmca.aps.anl.gov iburst dynamic
server ntp1.xray.aps.anl.gov iburst dynamic
server ntp2.xray.aps.anl.gov iburst dynamic
```

```
cp -p /.readonly/etc-tmpfs-mirror/crontab /.readonly/etc/
cp -p /.readonly/etc-tmpfs-mirror/passwd /.readonly/etc/
cp -p /.readonly/etc-tmpfs-mirror/shadow /.readonly/etc/
cp -p /.readonly/etc-tmpfs-mirror/ntp.conf /.readonly/etc/
cp -p /.readonly/etc-tmpfs-mirror/init.d/ntp /.readonly/etc/init.d/
```

```
ln -s /.readonly/etc-tmpfs-mirror/init.d/ntp /.readonly/etc-tmpfs-mirror/rcS.d/S23ntp
mv /.readonly/etc-tmpfs-mirror/rc2.d/S12ntp /.readonly/etc-tmpfs-mirror/rc2.d/S23ntp
mv /.readonly/etc-tmpfs-mirror/rc3.d/S12ntp /.readonly/etc-tmpfs-mirror/rc3.d/S23ntp
mv /.readonly/etc-tmpfs-mirror/rc4.d/S12ntp /.readonly/etc-tmpfs-mirror/rc4.d/S23ntp
mv /.readonly/etc-tmpfs-mirror/rc5.d/S12ntp /.readonly/etc-tmpfs-mirror/rc5.d/S23ntp
```

```
cp -pP /.readonly/etc-tmpfs-mirror/rcS.d/S23ntp /.readonly/etc/rcS.d/
cp -pP /.readonly/etc-tmpfs-mirror/rc2.d/S23ntp /.readonly/etc/rc2.d/
cp -pP /.readonly/etc-tmpfs-mirror/rc3.d/S23ntp /.readonly/etc/rc3.d/
cp -pP /.readonly/etc-tmpfs-mirror/rc4.d/S23ntp /.readonly/etc/rc4.d/
cp -pP /.readonly/etc-tmpfs-mirror/rc5.d/S23ntp /.readonly/etc/rc5.d/
```

```
cp -p /.readonly/etc-tmpfs-mirror/default/ntp /.readonly/etc/default/
cp -p /.readonly/etc-tmpfs-mirror/cron.daily/ntp /.readonly/etc/cron.daily/
cp -p /.readonly/etc-tmpfs-mirror/dhcp/dhclient-exit-hooks.d/ntp /.readonly/etc/dhcp/dhclient-exit-hooks.d/
```

Set timezone (use your timezone if differs from US Central):

```
mv /etc/localtime /etc/localtime.orig
ln -s /usr/share/zoneinfo/US/Central /etc/localtime
cp -p /.readonly/etc-tmpfs-mirror/localtime.orig /.readonly/etc/
cp -pP /.readonly/etc-tmpfs-mirror/localtime /.readonly/etc/
```

Start ntp and check the date:

```
service ntp restart
date
```

Since ntp fails to autostart at Debian boot, add it to crontab:

```
nano /etc/crontab
@reboot    root    sleep 30 && /usr/sbin/service ntp restart
```

Allow Cron to run at Debian boot for current runlevel:

```
cd /etc/rc3.d
ln -s ../init.d/cron ./S89cron
cp -pP /.readonly/etc-tmpfs-mirror/rc3.d/S89cron /.readonly/etc/rc3.d/
```

Disable rw on the root filesystem:

```
mount -o remount,ro /
```

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