make_ubuntu-mate_filesystem

`system`

最小ubuntu系统

以下参考：wiki.pro

install the required packages

```
apt-get install qemu-user-static binfmt-support
```

install Ubuntu Mate using debootstrap

```
mkdir ubuntu-mate-fs
debootstrap --arch armhf --foreign xenial ubuntu-mate-fs

cp /usr/bin/qemu-arm-static ubuntu-mate-fs/usr/bin
cp /etc/resolv.conf ubuntu-mate-fs/etc

#后面加个bash是因为host主机用的是zsh,在ubuntu-mate最小系统里没有zsh,指定为bash;
chroot ubuntu-mate-fs bash
export LANG=C
# We can now continue with the debootstrap process using:
debootstrap/debootstrap --second-stage

#add source.list for ubuntu
cat <<EOT > etc/apt/sources.list
deb http://ports.ubuntu.com/ xenial main universe
deb-src http://ports.ubuntu.com/ xenial main universe
deb http://ports.ubuntu.com/ xenial-security main universe
deb-src http://ports.ubuntu.com/ xenial-security main universe
deb http://ports.ubuntu.com/ xenial-updates main universe
deb-src http://ports.ubuntu.com/ xenial-updates main universe
EOT

# set up apt
```

```
cat <<EOT > etc/apt/apt.conf.d/71-no-recommends
APT::Install-Recommends "0";
APT::Install-Suggests "0";
EOT
# update the latest database from the servers:
apt-get update
# And you should set your locales (Debian) with dpkg scripts or they tend
to complain otherwise:
apt-get install locales
dpkg-reconfigure locales
# Choose en_US.UTF-8 or whatever you want:
export LANG=en_US.UTF-8

# Set a root password so you can login
passwd
# Set the hostname
echo mate > etc/hostname

# add this line to /etc/hosts
127.0.1.1   mate

# Exit the chroot session
etc/init.d/ssh stop
exit
```

Clean up the support files

```
1.  rm ubuntu-mate-fs/usr/bin/qemu-arm-static ubuntu-mate-fs/etc/resolv.con
    f
```

Mate桌面环境安装

安装tasksel工具

```
1.  apt-get install tasksel
```

安装mate

```
tasksel --task-packages ubuntu-mate-desktop | xargs apt-get -y install
```

桌面环境优化

安装IDE开发工具

```
# apt-get install codeblocks
apt-get install build-essential
```

python 开发环境

默认已安装.

```
# apt-get install idle-python2.7
# apt-get install idle-python3.5
```

系统优化

开机加载的驱动

`vim /etc/modules`

```
ethernet
wlan_8723bs
rfkill-actions_8723bs
```

屏蔽不要的驱动

删除原文件系统**/etc/modprobe.d**目录下*.conf文件。
新建**/etc/modprobe.d/blacklist-guitar.conf**:

```
# The file blacklist some drivers which don't use on the Guitar.
```

```
###GPU Driver
#blacklist pvrsrvkm

###WiFi Driver
blacklist wlan_8723bs_vq0

###CTP Driver
blacklist ctp_gslX680
blacklist ctp_gsl3680
blacklist ctp_gt9xx

###Gsensor Driver
blacklist gsensor_mir3da
blacklist gsensor_stk8313
blacklist gsensor_bma222
blacklist lightsensor_ltr301
```

更换桌面背景

将需要替换的桌面复制到`/usr/share/backgrounds/ubuntu-mate-common`中.
创建软链接:

```
#更改登陆窗口背景
ln -sf Ubuntu-Mate-Lemaker.jpg Ubuntu-Mate-Cold-lightdm.jpg
#更改桌面背景
ln -sf Ubuntu-Mate-Lemaker.jpg Ubuntu-Mate-Cold.jpg
```

允许root登陆ssh

先安装openssh-server: `apt-get install openssh-server`
编辑文件: `vim /etc/ssh/sshd_cnfig`

```
...
#PermitRootLogin prohibit-password  #注释该选项
PermitRootLogin yes  #新增选项
...
```

添加lemaker帐户

```
useradd -s /bin/bash -m lemaker
passwd lemaker
```

添加lemaker到sudoer files

`vim /etc/sudoers` ... ...

桌面系统自动登陆

```
# /usr/share/lightdm/lightdm.conf.d# cat 50-ubuntu-mate.conf
[SeatDefaults]
autologin-user=lemaker
autologin-timerout=0
user-session=mate
```

cpu动态频率设置

`vim etc/rc.local`

```
echo ondemand > /sys/devices/system/cpu/cpu0/cpufreq/scaling_governor

echo 45 > /sys/devices/system/cpu/cpufreq/ondemand/up_threshold
echo 15 >
/sys/devices/system/cpu/cpufreq/ondemand/sampling_down_factor
echo 1 > /sys/devices/system/cpu/cpufreq/ondemand/io_is_busy
```

安装GPU

参考 wiki:硬件加速

下载并解压文档

```
wget http://mirror.lemaker.org/GPU_For_LeMaker_Guitar_201603.tar.gz
sudo tar -xvf GPU_For_LeMaker_Guitar_201603.tar.gz
```

安装软件包

```
cd GPU_For_LeMaker_Guitar_201603
sudo chown -R root:root ./*
sudo ./install.sh
```

替换 X, Xorg

```
cd /usr/bin
sudo mv X X.original
sudo mv Xorg Xorg.original
sudo ln -sf /usr/local/XSGX/bin/X X
sudo ln -sf /usr/local/XSGX/bin/Xorg Xorg
sudo cp /usr/local/XSGX/etc/xorg.conf  /etc/
```

检查依赖模块

```
sudo depmod
```

> 注意： 使用depmod时提示没有/lib/modules/* 目录，手动创建之。
>
> ```
> mkdir -p /lib/modules/`uname -r`
> mkdir -p /lib/modules/`uname -r`/modules.order
> mkdir -p /lib/modules/`uname -r`/modules.builtin
> ```

加载路径库

需要将/usr/local/XSGX/lib及 /usr/lib目录添加到系统默认的库搜索路径，在/etc/ld.so.conf.d目录下新增文件sgx544.conf, 内容如下:

```
/usr/local/XSGX/lib
/usr/lib
# ldconfig  #更新缓存文件/etc/ld.so.cache
```

系统默认安装了mesa库，为使用SGX544提供的OpenGL/OpenGL-ES库，需先屏蔽系统原生的mesa库，具体操作如下:

```
rm arm-linux-gnueabihf_GL.conf
rm arm-linux-gnueabihf_EGL.conf
ldconfig
```

> 安装GPU驱动后桌面启不来, 要删除以下文件即可:
> `sudo rm /usr/share/X11/xorg.conf.d/10-amdgpu.conf`

Clear

1、清除/var/log/目录下所有的log

```
cd /var/log/ && find ./ -type f | xargs rm -rf {}
```

2、删除/var/cache/apt/archives目录下的*.deb*缓存文件

```
cd /var/cache/apt/archives && rm -rf *.deb
```

问题

NTFS写入问题

```
apt-get install ntfs-3g
```

网络

新镜像不能上网，补上这个软链接：参考

```
ln -s  /run/resolvconf/resolv.conf /etc/resolv.conf
```

关于本地环境

在使用apt-get时发现报错如下:

```
perl: warning: Setting locale failed.
perl: warning: Please check that your locale settings:
```

```
        LANGUAGE = (unset),
        LC_ALL = (unset),
        LC_PAPER = "zh_CN.UTF-8",
        LC_NUMERIC = "zh_CN.UTF-8",
        LC_IDENTIFICATION = "zh_CN.UTF-8",
        LC_MEASUREMENT = "zh_CN.UTF-8",
        LC_NAME = "zh_CN.UTF-8",
        LC_TELEPHONE = "zh_CN.UTF-8",
        LC_ADDRESS = "zh_CN.UTF-8",
        LC_CTYPE = "en_US.UTF-8",
        LC_MONETARY = "zh_CN.UTF-8",
        LANG = "en_US.UTF-8"
    are supported and installed on your system.
perl: warning: Falling back to a fallback locale ("en_US.UTF-8").
/usr/bin/locale: Cannot set LC_ALL to default locale: No such file or direc
tory
```

解:

`vim /etc/default/local` 并添加以下两行:

```
LANGUAGE=en_US.ETF-8
LC_ALL=C
```