Genesi Efika MX

Maverick Installer Card

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DRAFT VERSION   Updated December 30th 2010

Contents

Requirements

You will need:

- An Efika MX Smarttop or Efika MX Smartbook
- A 2GB SD card or MicroSD card with an SD adapter
- A Windows, Linux or Mac computer
- An SD card reader (USB or built-in. The Efika MX will work)

Overview

This installer image will re-format and install a fresh copy of Ubuntu 10.10 "Maverick Meerkat" to your Efika MX. All models of Efika MX are supported. Please note that the installed software is NOT supported by Canonical or Ubuntu, and is a customized installation of the operating system specifically for the Efika MX.

Updating Your Efika MX Firmware

You may need to perform a U-Boot upgrade first. To determine if you need to update:

- Smarttops will blink the blue LED three times on boot and use the red LED to signify boot activity. If your Smarttop does this, you have a working version of U-Boot
- Smartbooks will blink the Caps Lock LED three times on boot and use the same LED to signify boot activity. If your Smartbook does this, you have a working version of U-Boot.

Alternatively if you have the debug dongle attached you can read the U-Boot version from the serial port. The correct version is u-boot-2009.01-2.0.6-efika{mx,sb} appropriate for your system.

You will also need to download the following file from PowerDeveloper in the same place you downloaded this document and the maverick-installer.img.xz:

- efikamx-updater.img.xz

Imaging the SD Card

On a Linux system

First, turn off Automounting support in your desktop environment. For GNOME this can be achieved by opening a terminal and using the command:

```
gconf-editor
```

A GUI will open with a tree of options. Click down through apps -> nautilus -> preferences and locate the preference item "media_automount". Uncheck the box. You may leave this window open so you can re-enable the option once you have finished imaging SD cards.
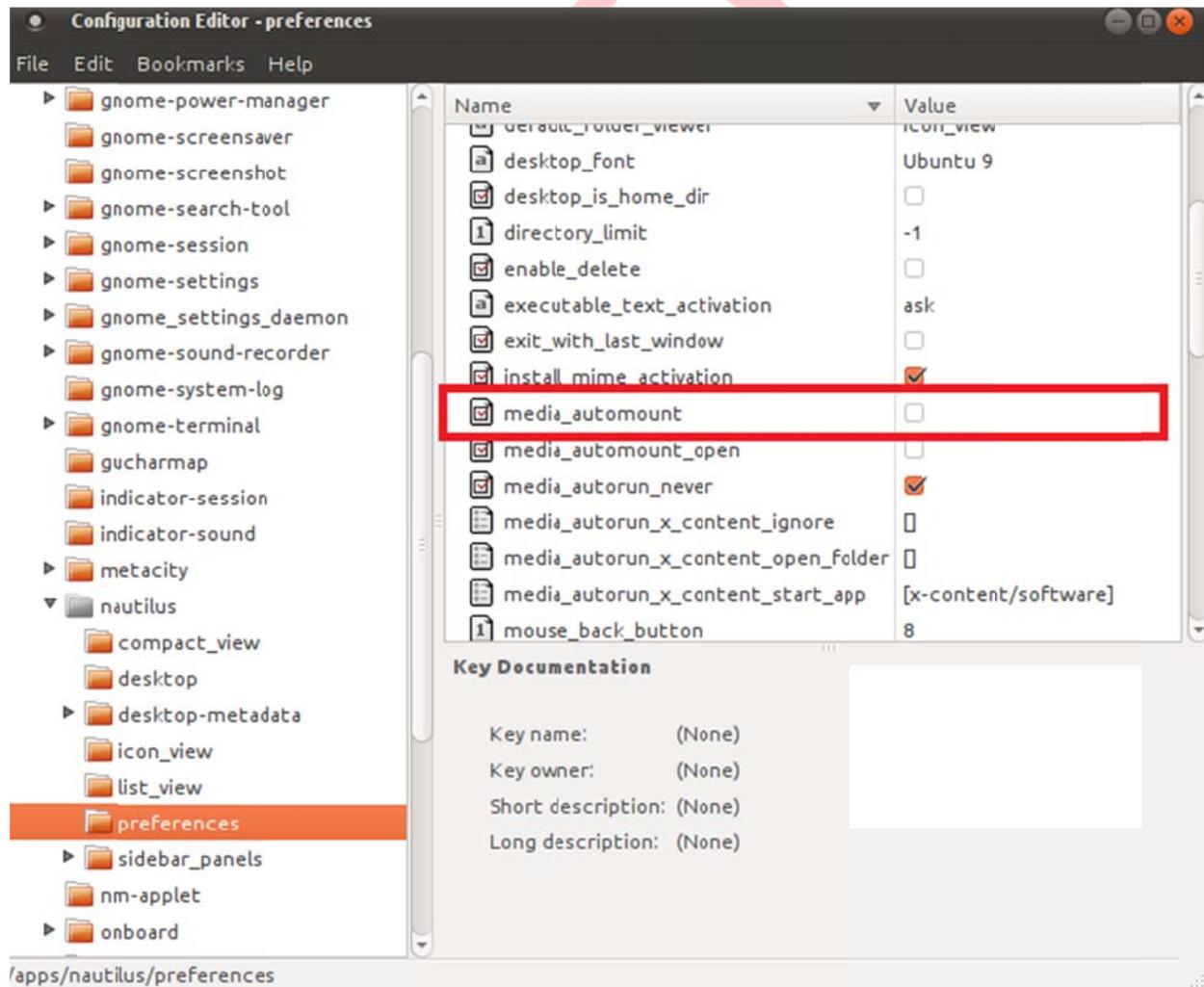
Now open a terminal, and locate the image you downloaded. Insert your SD card and locate the device entry for the disk. This may be /dev/sdg or /dev/mmcblk1 depending on your SD card reader. Useful hints are to read the output of the "dmesg" command:

```
[58331.359180] sd 14:0:0:1: [sdf] 3842048 512-byte logical blocks: (1.96 GB/1.83 GiB)

[58331.373742] sd 14:0:0:1: [sdf] Assuming drive cache: write through

[58331.402663] sd 14:0:0:1: [sdf] Assuming drive cache: write through

[58331.402672]  sdf: sdf1 sdf2
```

In this example the device just plugged in was /dev/sdf. Make sure the size reported matches roughly the one for your SD card.

You may use the "dd" tool to image the SD card. To extract the SD card image, simply open a terminal and use the command:

```
        xz –dc  maverick-installer.img.xz   |   dd of=/dev/sdf
```

There will be no reporting of progress, but you can tell something is happening through the disk light on your SD card reader. When it is done it will report success or failure to image the card. Advanced users may want to set the output block size (bs=1M) to something higher for faster imaging, however as this varies over SD cards you may experience slower imaging speed than with the default block size.

Example Output:

```
neko@spinel:/build/sd$ xz -dc maverick-installer.img.xz | sudo dd of=/dev/sdf

3686400+0 records in

3686400+0 records out

1887436800 bytes (1.9 GB) copied, 6030.72 s, 313 kB/s
```

Once the card is imaged, remove the card, and you may restore the media automount feature.

On a Windows system

Use WinZip, 7-Zip or similar archiving tool to extract maverick-installer.img to your desktop. You may then use a tool such as "flashnul" or the Win32 Disk Image Writer tools linked from PowerDeveloper.

On a Mac system

Advanced users may use the Linux method. To find your disk simply open a terminal and use "diskutil list" to enumerate all attached disks in a system. Your SD card will probably be /dev/disk2 or similar (check the size of the disk matches your SD card to confirm)

For easier imaging use the GUI tools linked from the Windows instructions.

Booting the SD Card

If you have not updated your Smarttop to the latest U-Boot yet, start with the U-Boot Updater SD card. This will take around 30 seconds to complete and reboot to a blue blinking light. The boot process will fail: the light will stay solid blue. At this point you may remove the SD card and power off.

To install Linux, simply power off the system and insert the Linux Installer SD card. It will boot automatically and install the system with a progress indicator and a description of the current task in progress. Once the installation is finished the system will power off automatically and you may remove the SD card.

First Boot

Upon first boot of the system you will be presented with an option to change the language of the installer. You may pick the one you are comfortable with. Afterwards, it will ask for a timezone, let you detect your keyboard layout, and enter a username and password, and name your machine for the network. You may want to connect the system to a network at this point (the Wireless icon in the top left will let you select an SSID of the nearest appropriate access point) since it will set the time and also download any package updates required by the installation system if you picked a language other than English.

After installation you will be presented with a login screen, or logged in automatically depending on the options you selected. Congratulations, your system is installed!

Current issues with the installed Linux system as of December 30th 2010

- Closing the Smartbook lid to suspend to RAM may result in USB not functioning correctly when the system restores operation on opening the lid. A solution has been prepared but is not fully reliable. You can turn off suspend on lid close in the Power Management Preferences.
- Users may not be able to use Audio or Webcam on Smarttop or Smartbook devices. This can be fixed by adding the user to the "Use audio devices" and "Use video devices" groups, accessed via the Users and Groups item in the Administration menu.
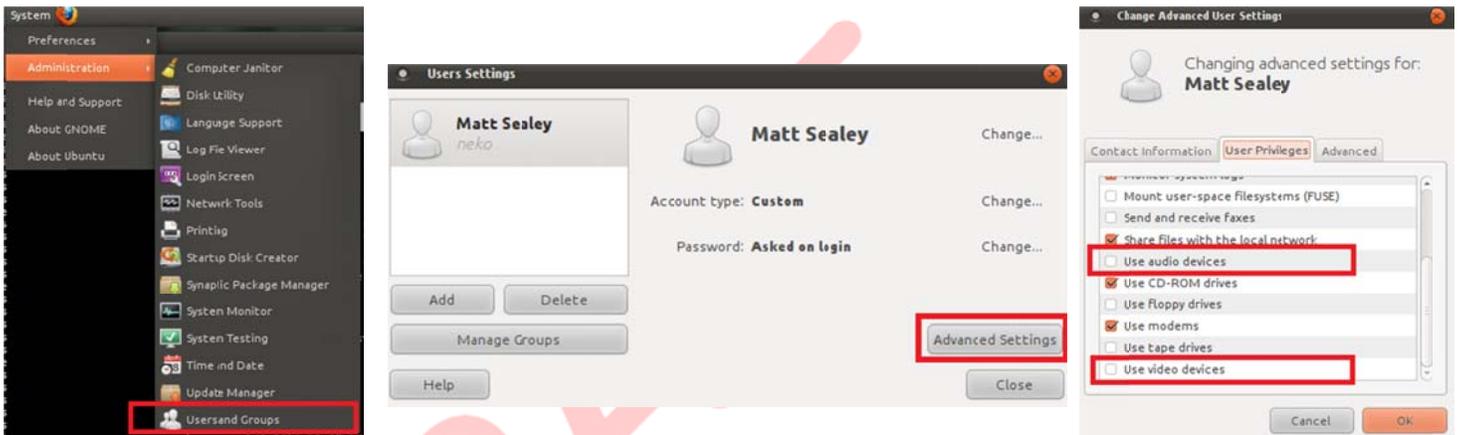
- Graphics acceleration is not currently installed. This will be enabled in a future update.
- Brightness keys on Smartbook do not operate correctly