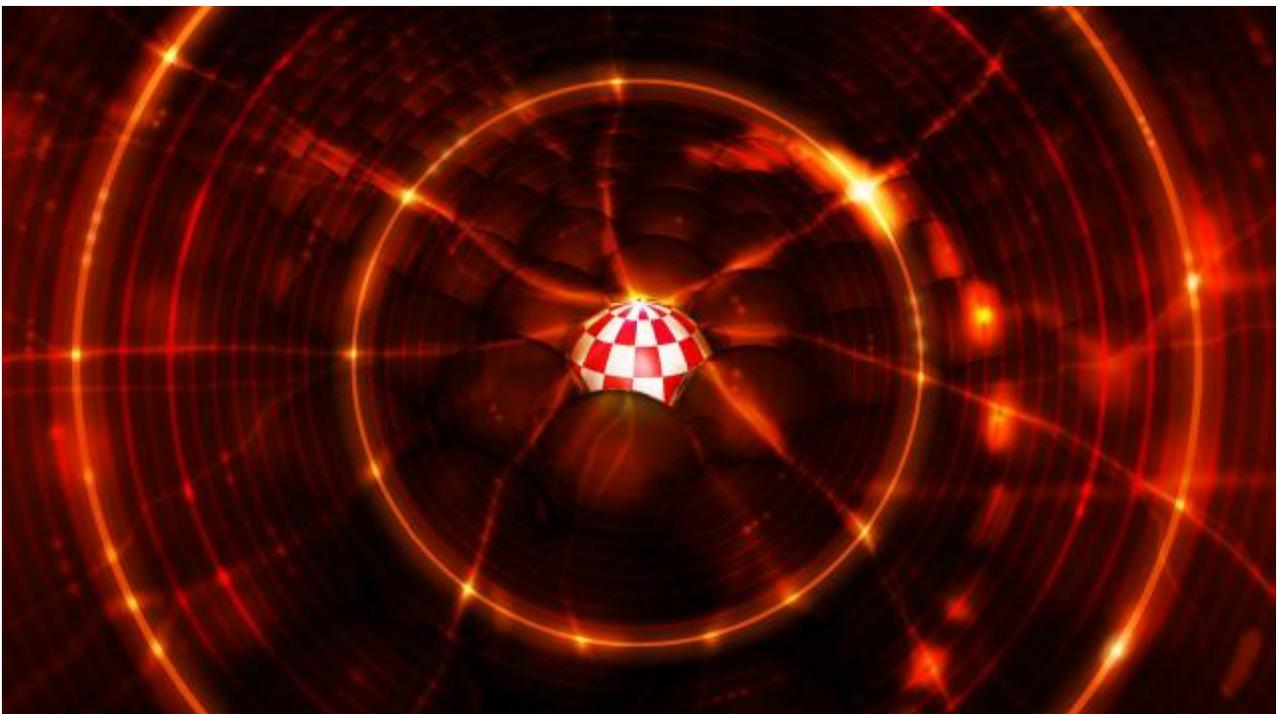


# Installing Ubuntu 12.04 LTS on the AmigaONE X1000





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# 1

---

## Before you begin

### 1. Memory and HDD Requirements

A minimum of 2GB memory is required to boot the Ubuntu Live Remix 12.04 LiveDVD or install it to your AmigaONE X1000 HDD. Although mixed Amiga OS4 / Linux HDD installations and installation to external USB HDD are supported (and work) it is recommended to install Ubuntu Live Remix 12.04 to it's own SATA or IDE HDD.

### 2. Compact Flash (CF) Card to boot the Linux Kernel from

Please note this step is not required if you want to test the LiveDVD only.

If you decide to install Ubuntu to your AmigaONE X1000 HDD you will need to copy the kernel image to a CF card that has been formatted as **FAT16** or **EXT2**. Please note that FAT32 or NTFS are not supported by CFE. A CF card is recommended as a USB-Stick can only be inserted once CFE is loaded. If you intend to utilise a CF card you should ensure that it has been installed in your AmigaONE X1000 before commencing with the installation to HDD.

Instructions on how to format a CF card and copy the Linux kernel to it from the LiveDVD are provided in step 4 of this Installation Guide.

### 3. Networking

For testing and installation of the LiveDVD you should ensure that only one of the AmigaONE X1000 Ethernet ports is connected to your switch/router. i.e. You can connect either the onboard ethernet port or the port on the PCI ethernet card but not both simultaneously.

### 4. Unsupported AMD Radeon Graphics Cards

AMD Radeon HD7xxx support on the DVD is currently classified as 'experimental' with 3D hardware acceleration unavailable for the initial release.

## 2

---

### Booting the Ubuntu Live Remix 12.04 DVD from CFE

Power On your AmigaONE X1000 and insert the Ubuntu DVD into the DVD-drive.

Once the CFE menu appears Press **'F'** to boot to the CFE Prompt before the automatic timeout has completed.

To boot from the Ubuntu DVD type the following command followed by pressing **Return**

If your DVD drive is on port 1 (Default "First Contact" Setting)

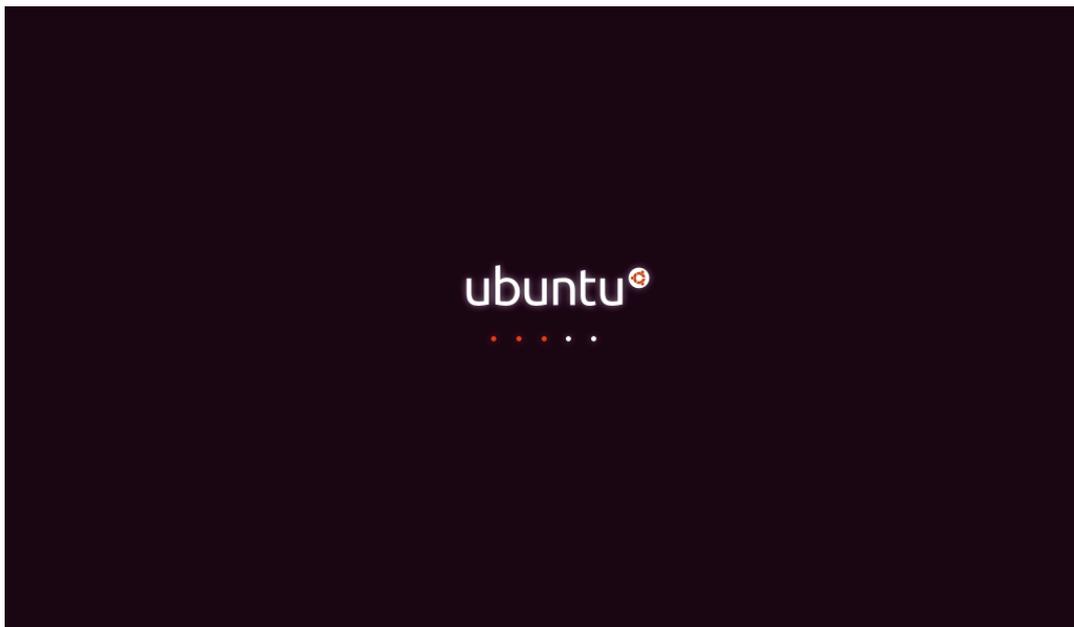
```
CFE> batch -fs=iso atapi0.1:bootdvd0.1
```

--- or ---

If your DVD drive is on port 0

```
CFE> batch -fs=iso atapi0.0:bootdvd0.0
```

The Ubuntu Splash Screen should appear after 15 – 20 seconds.



# 3

---

## Try Ubuntu before you install it

Your live desktop should load. If you're not yet sure about installing Ubuntu, you can try it out without affecting your current system.

Have a look around!



# 4

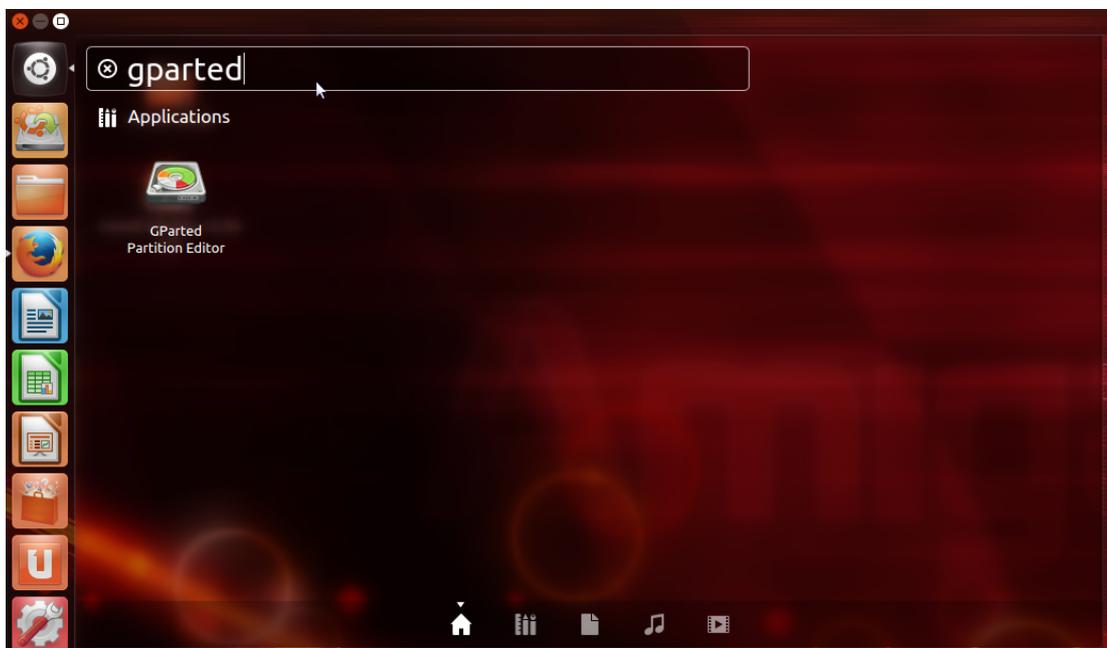
---

## Formatting a CF Card in Ubuntu with GParted

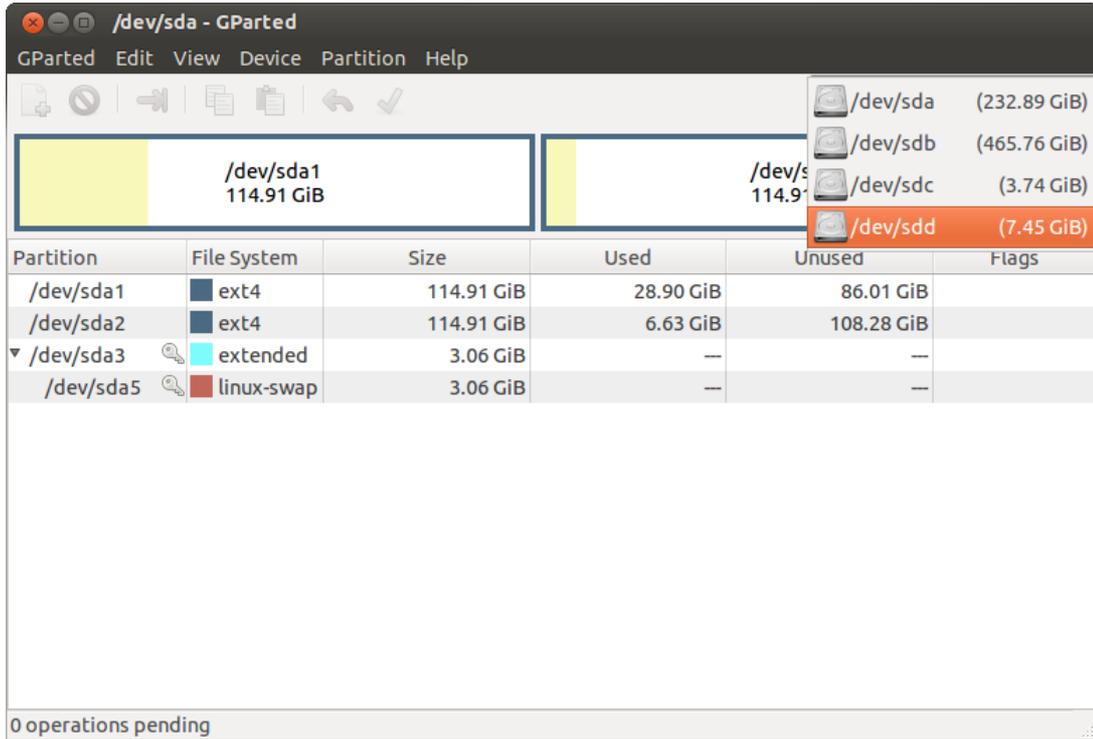
It is necessary to format your CF Card as **FAT16** or **EXT2** in order to boot the Ubuntu HDD Installation from CFE.

The easiest way to do this with the Ubuntu Remix Live DVD is to use the included **GParted** application.

You can run GParted by clicking on the **Dash Home** Launcher (Ubuntu Logo), typing *gparted* into the search dialog and then clicking GParted Partition Editor from the results displayed.

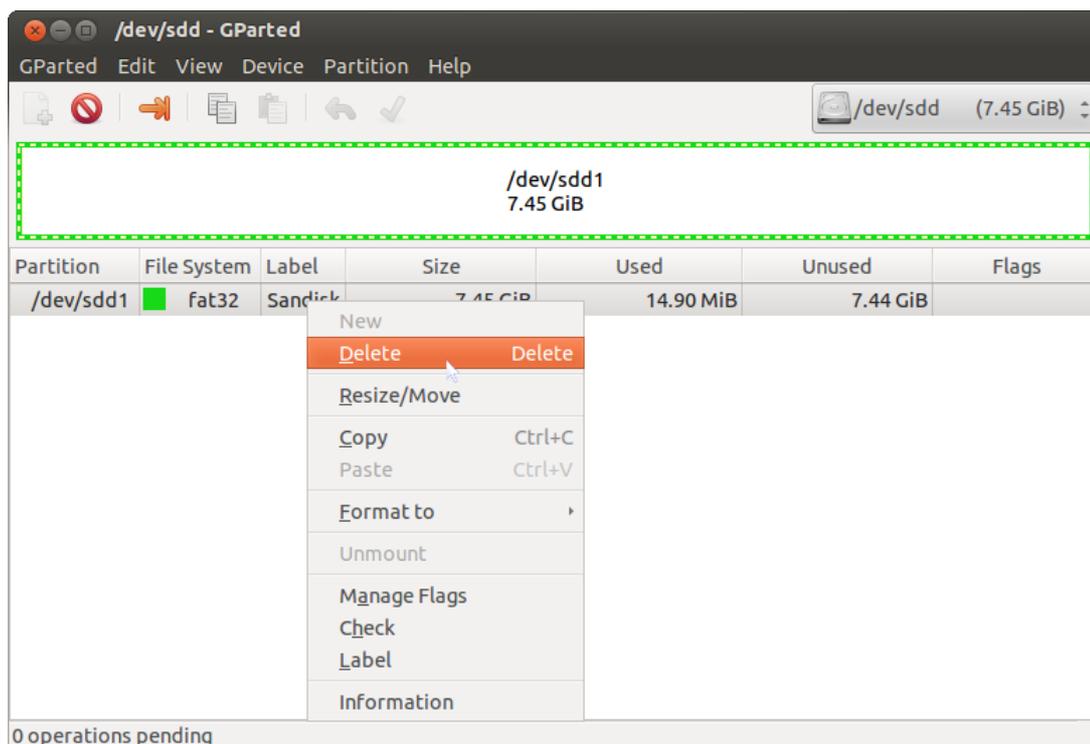


Select your CF Card from the drop down list of available disks.



GParted will display the current partition on your CF card. Your card will most likely have a FAT32 partition by default. You will need to delete this partition and replace it with a FAT16 or EXT2 partition. FAT16 is recommended.

Right Click on the partition to delete



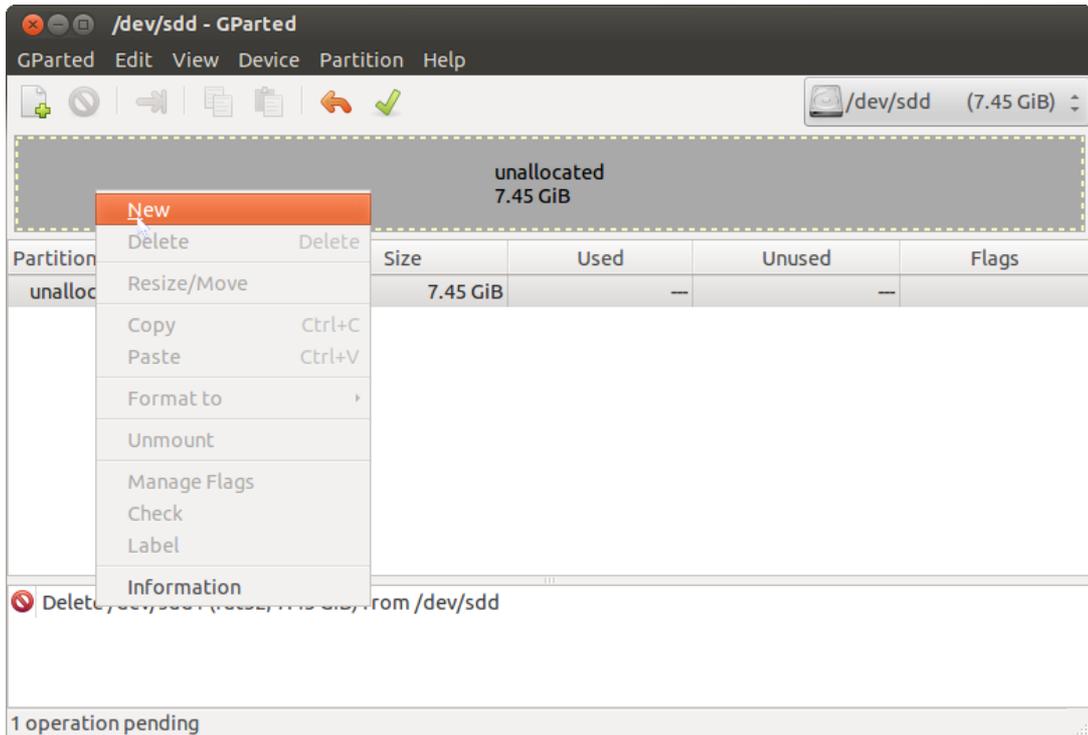
**Note:** Unmount in the menu above should be *greyed out*. If it is not you must select Unmount first before deleting the partition.

**⚠ WARNING:**

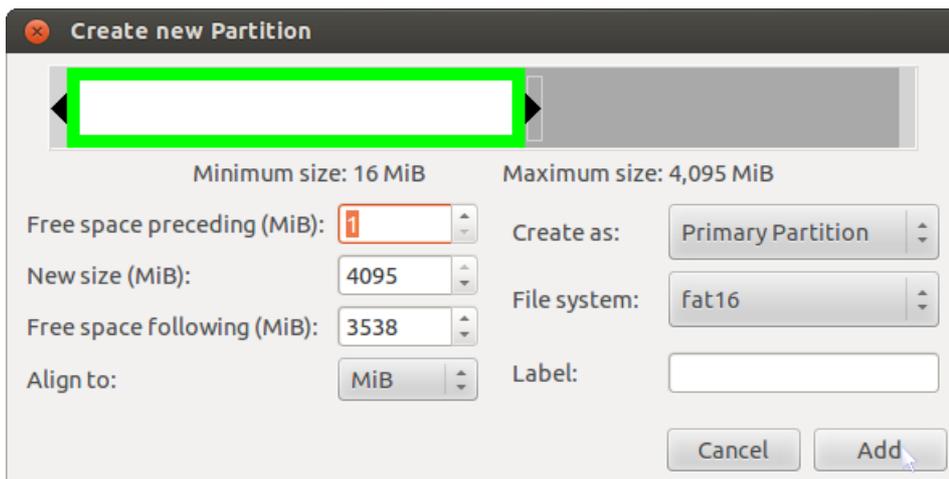
**Are you sure the disk you have selected is your CF Card?**

**You are about to destroy all data on the disk partition!**

Right click on the unallocated space and select **New**



Create as **Primary Partition** with File system set to **fat16**



Click **Add** when finished.

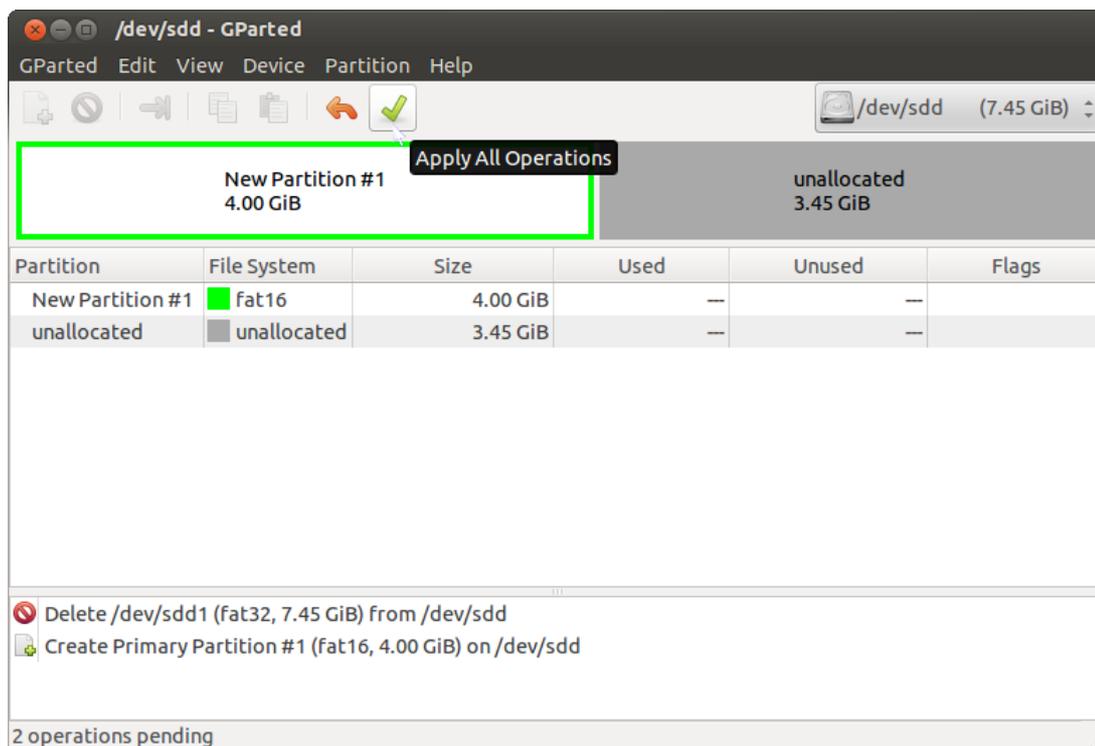
**Note:** the maximum size of a FAT16 partition is 4GB or 4095MB

**⚠ FINAL WARNING:**

**Are you sure the disk you have selected is your CF Card?**

**You are about to destroy all data on the disk partition!**

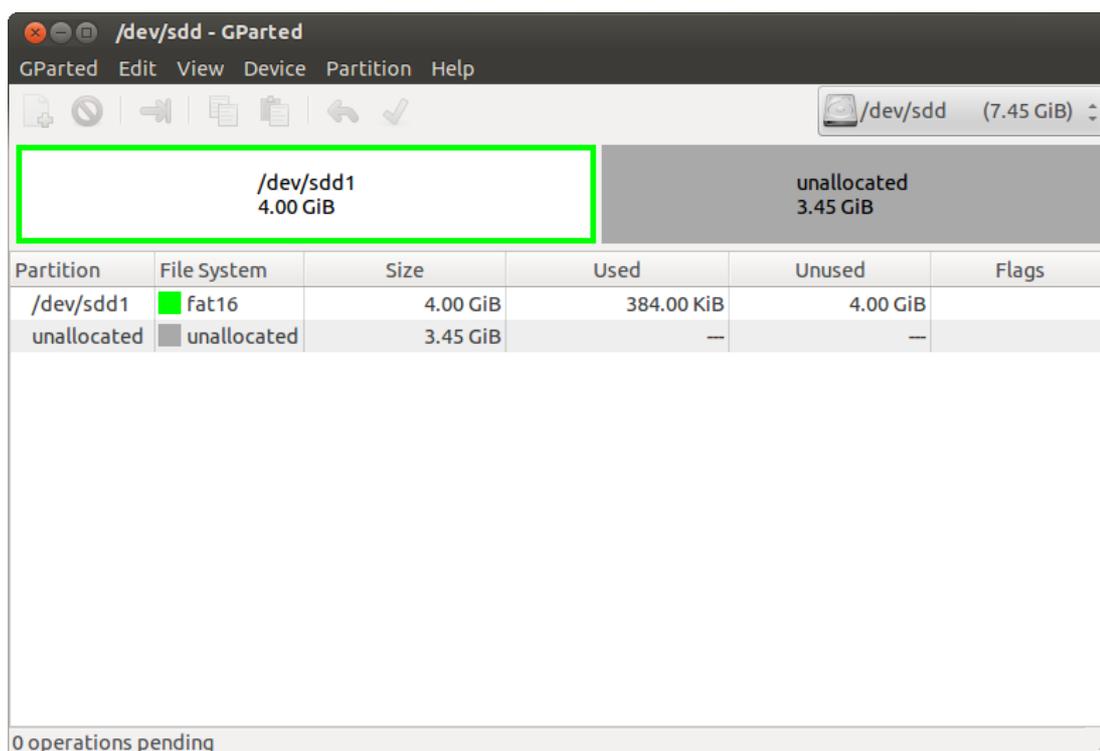
Click the **Apply All Operations** Icon



If Apply All Operations has been successful there should be 0 pending operations and your FAT16 partition will be created successfully.

**Note:** Take note of the partition ID of the FAT16 partition you have just created as you will need it for step 5 when copying the Linux Kernel to the CF card.

In the screenshot below the CF card FAT16 partition is /dev/sdd1. Your partition ID *may* be different depending on how many disks you have installed in your AmigaONE X1000.



You can now close GParted.

# 5

---

## Copy the Linux Kernel to the CF Card

It is necessary to open the Ubuntu Terminal Application to mount the CF Card partition and copy the Linux kernel to it.

From the Ubuntu Unity Desktop you can use the key combination **Ctrl + Alt + t** to open the Terminal. Alternatively you can click on the Dash Home Launcher, type *terminal* into the Search dialog and click the Terminal application from the search results.

**Note:** Press the **Return** key after typing a command into the Terminal.

Mount the CF card partition by typing the following command into the Terminal (after the **ubuntu@ubuntu:~\$** bash shell prompt).

**Note:** Don't forget to replace **/dev/sdd1** with your partition ID that you noted from Step 4.

```
ubuntu@ubuntu:~$ sudo mount -t vfat /dev/sdd1 /mnt
```

Now copy the Linux kernel to the CF card partition that you have mounted under /mnt.

```
ubuntu@ubuntu:~$ sudo cp /boot/vmlinuz-3.13.2 /mnt
```

Check that the kernel has copied successfully.

```
ubuntu@ubuntu:~$ ls /mnt
```

You should see the kernel you have just copied displayed as follows.

```
vmlinuz-3.13.2
```

You can now unmount the CF card partition by typing the following command.

**Note:** Once again don't forget to replace **/dev/sdd1** with your partition ID that you noted from Step 4.

```
ubuntu@ubuntu:~$ sudo umount /dev/sdd1
```

You can now close the Terminal Application.

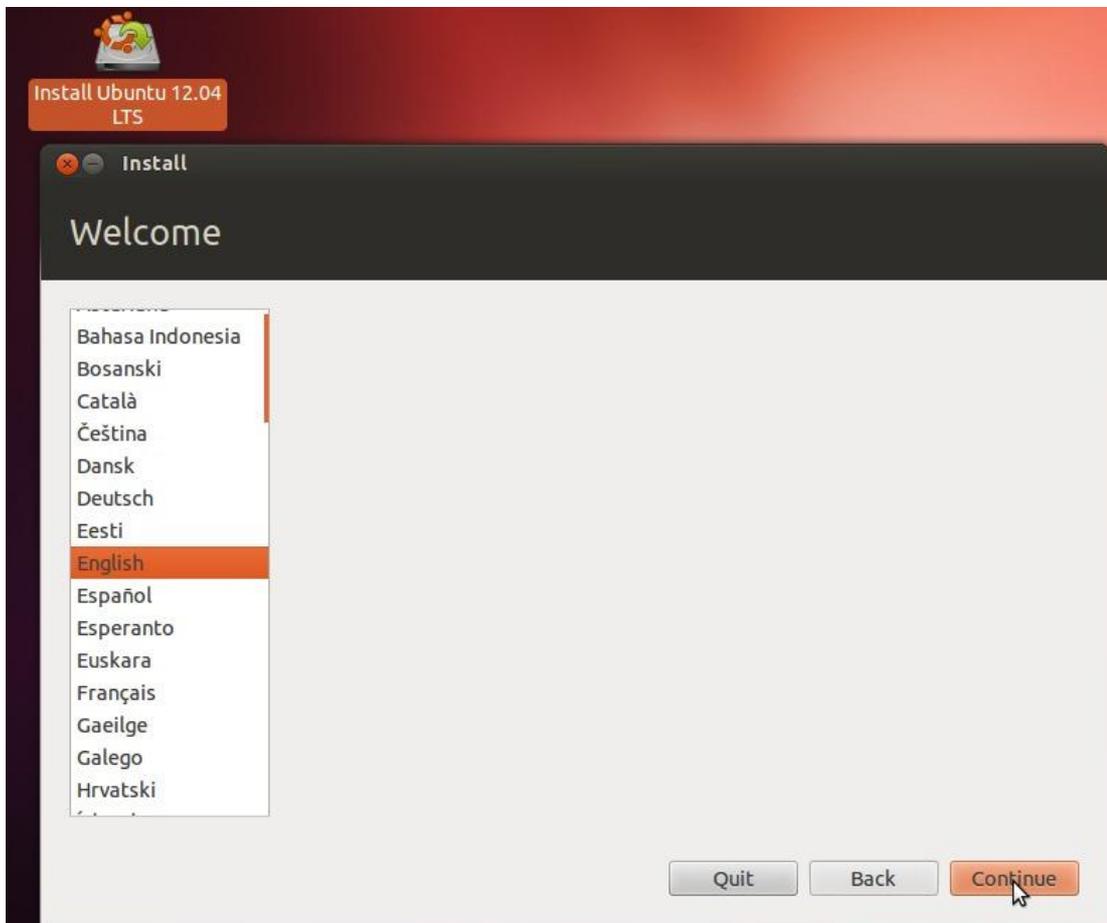
# 6

## Begin the Installation

Before proceeding with installing Ubuntu to your computer ensure you have an adequate and up to date backup of important documents and files.

When you're ready to install Ubuntu, double-click on the icon on your desktop: '**Install Ubuntu 12.04 LTS**'

Select your language of choice for the installation and click **Continue**.



# 7

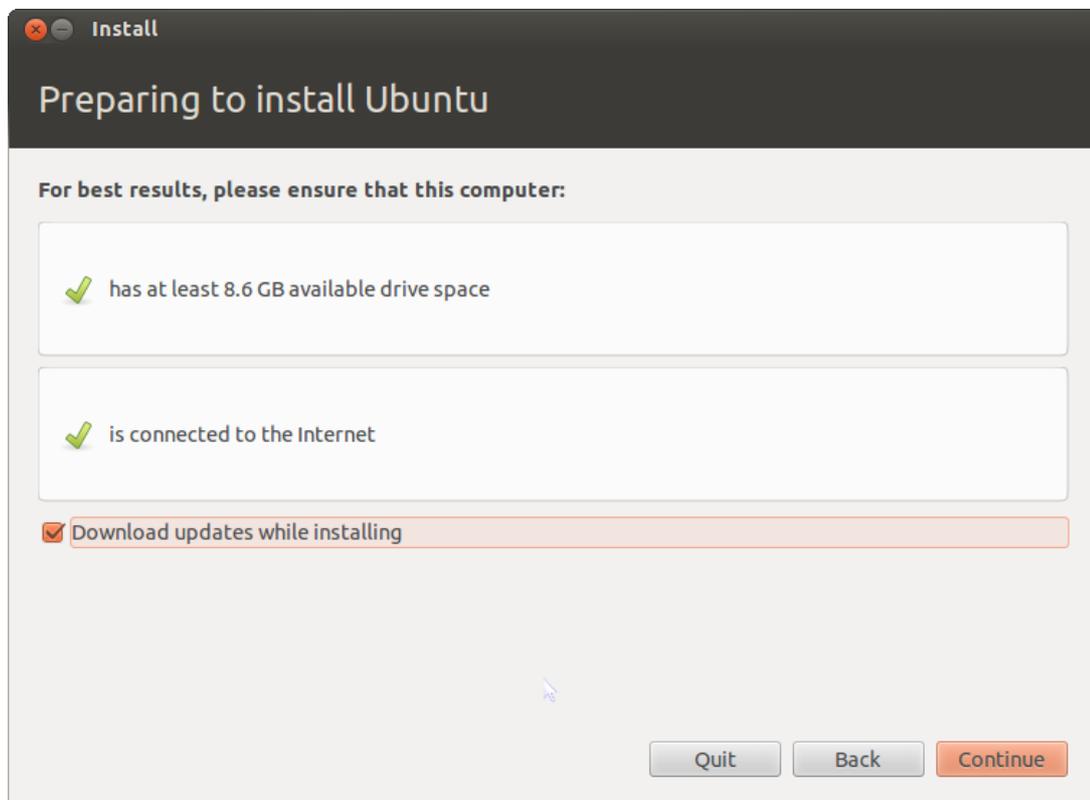
## Preparing to install Ubuntu

- You should also make sure you have enough space on your computer to install Ubuntu. The current version requires at least 12GB of disk space for comfortable operation. The minimum disk space required is 8.6GB for the Live DVD as based on Ubuntu 12.04.4

(Please note the minimum value displayed in the screenshot may vary for future released versions and therefore you should always take note of what the installer recommends as the *minimum disk space* required)

- We advise you stay connected to the internet and to select **Download updates while installing** so you can get the latest updates while you install Ubuntu.

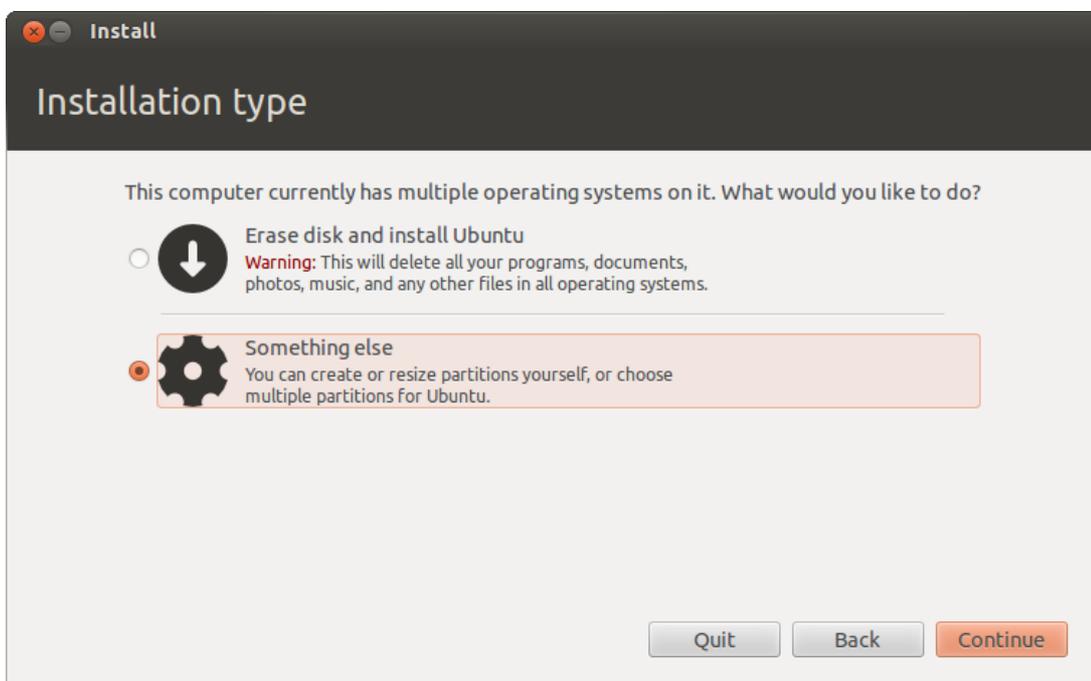
Click **Continue** to move to the next screen.



---

## Select Installation Type

Select either '**Install Alongside**' an existing operation system if given the option or '**Something else**' and click **Continue**. If you decide to install alongside an existing OS the Ubuntu Installer will automatically partition your disk and skip forward to Step 10. It will show you very briefly at the bottom of the Installer Window what the partition ID of the / root partition will be. Take note as you will need this later when you reboot into your installed Ubuntu from CFE.



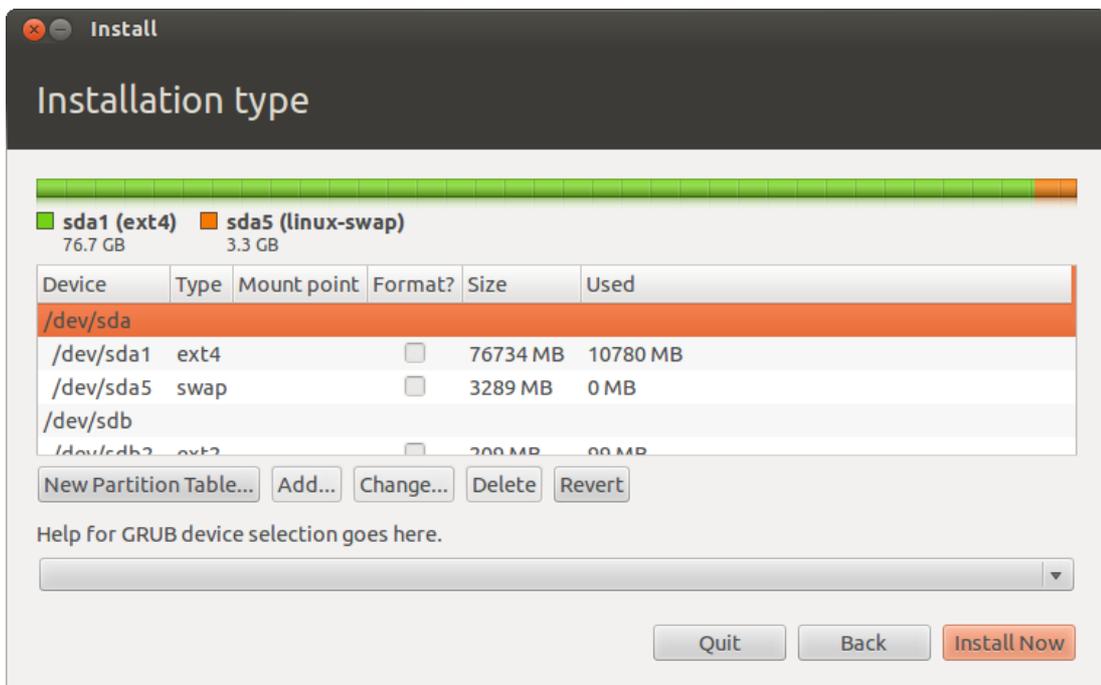
## Create Partitions

If you have selected ‘Something Else’ you will be presented at the partition screen and you will need to partition your disk manually. You will need to create at least two partitions as follows:

1. A Root partition (*/*) of at least 8.6GB in size formatted as EXT4. Take note of the Device ID of the root partition (e.g. */dev/sda1*) as you will need this information when booting the installed system from CFE.
2. A Swap partition of 4GB in size.

Ignore the drop down for “Grub Device installation”

Check you are happy with your partition selections and click the “**Install Now**” button.

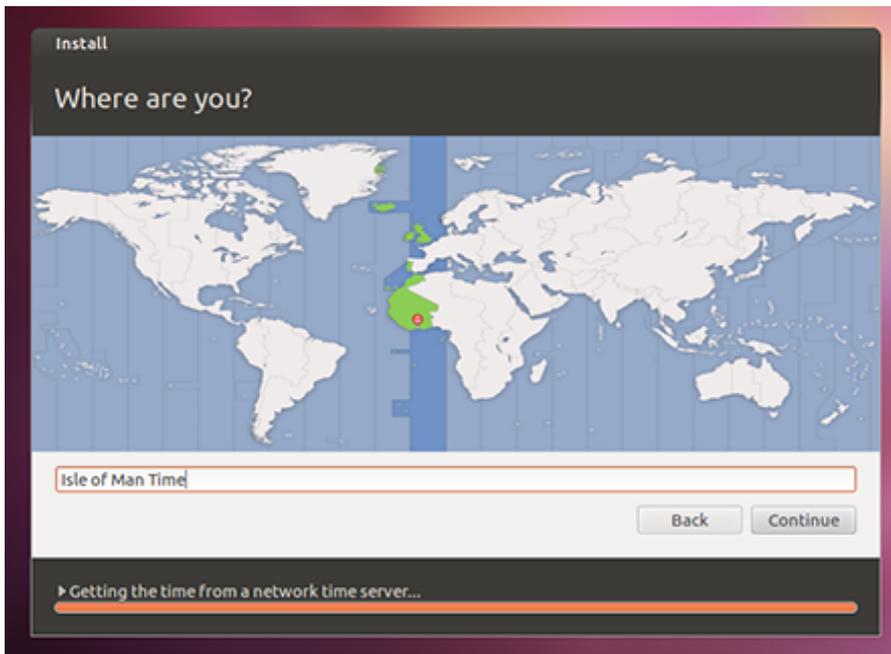


---

## Select your location

If you are connected to the internet, this should be done automatically. Check your location is correct and click **'Forward'** to proceed. If you're unsure of your time zone, type the name of the town you're in or click on the map and we'll help you find it.

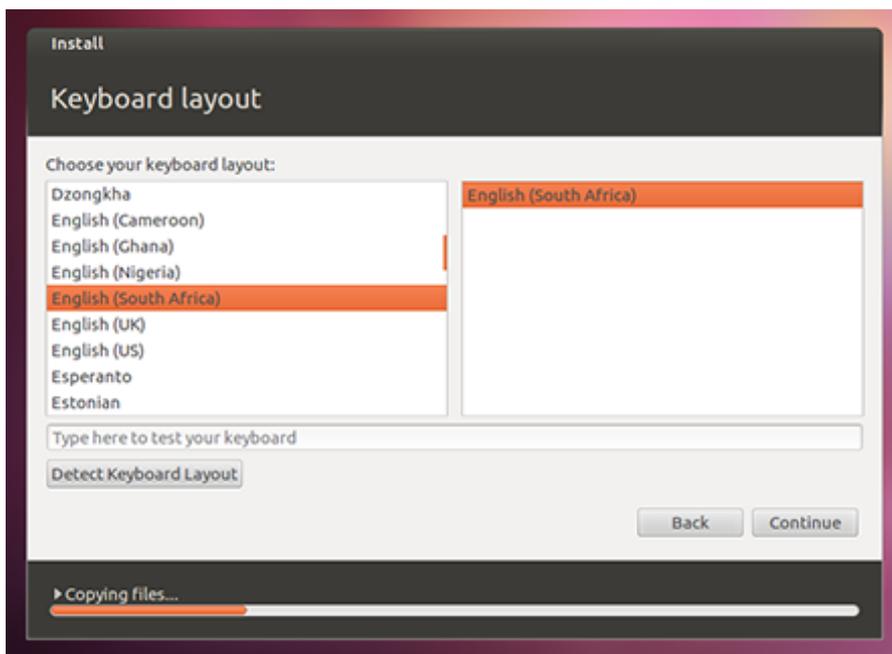
**TIP:** If you're having problems connecting to the Internet, use the menu in the top-right-hand corner to select a network.



---

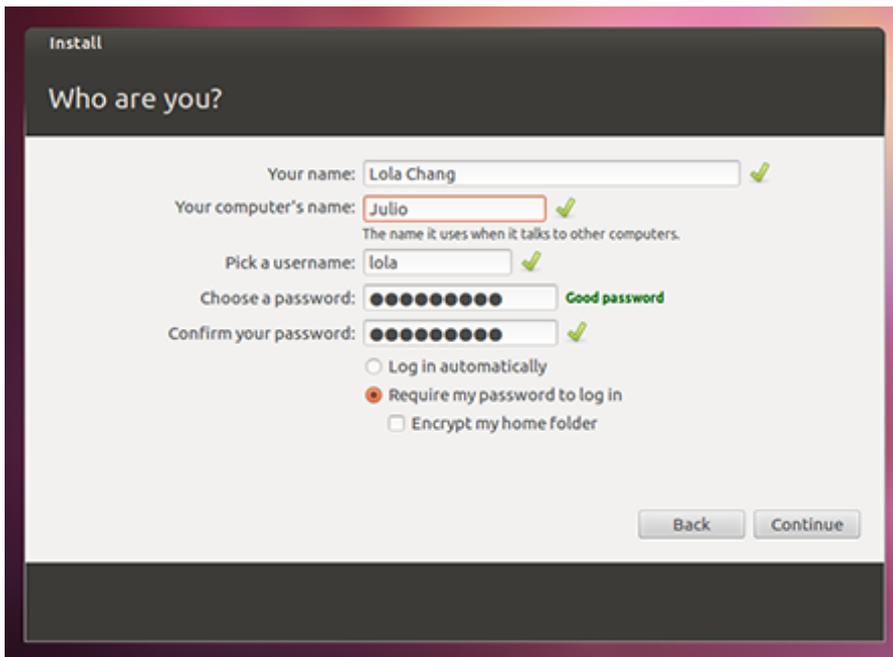
## Select your preferred keyboard layout

Click on the language option you need. If you're not sure, click the '**Detect Keyboard Layout**' button for help.



---

## Enter your login and password details



The image shows a screenshot of the Ubuntu installer's 'Who are you?' screen. The window title is 'Install'. The main heading is 'Who are you?'. The form contains the following fields and options:

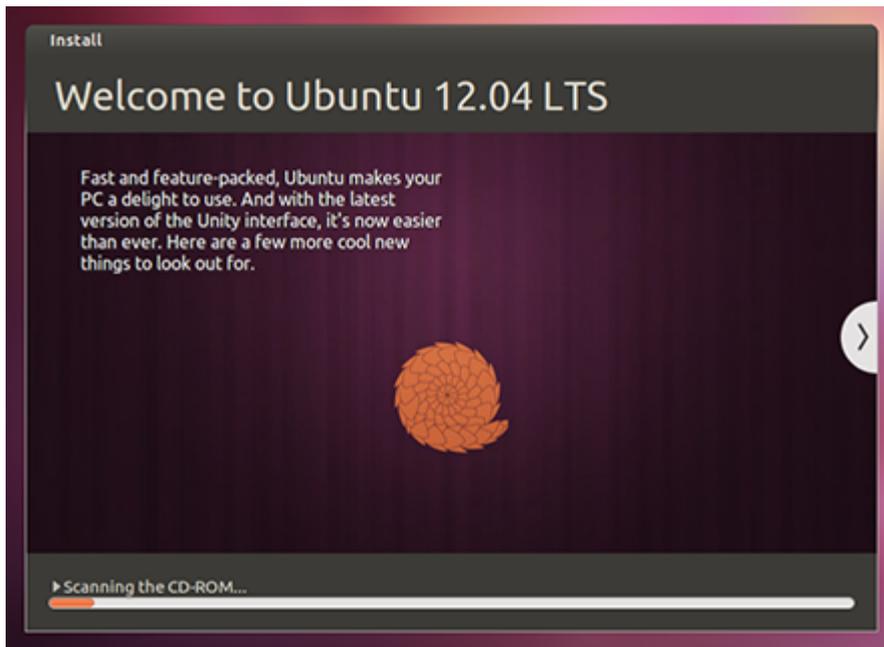
- Your name: Lola Chang ✓
- Your computer's name: Julio ✓  
The name it uses when it talks to other computers.
- Pick a username: lola ✓
- Choose a password: [masked] Good password
- Confirm your password: [masked] ✓
- Log in automatically
- Require my password to log in
- Encrypt my home folder

At the bottom right, there are 'Back' and 'Continue' buttons.

---

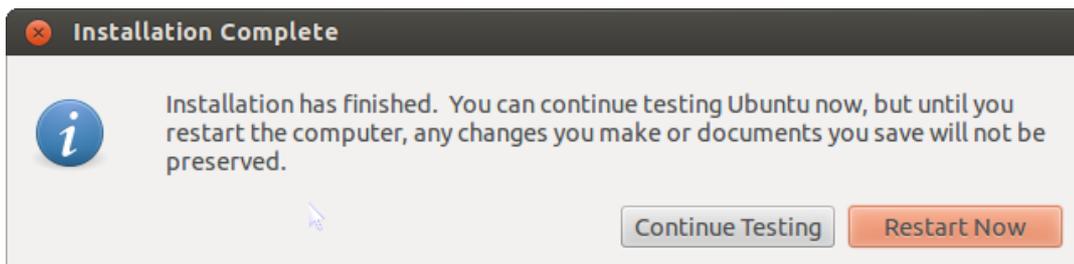
## Learn more about Ubuntu while the system installs...

...or make a cup of tea!

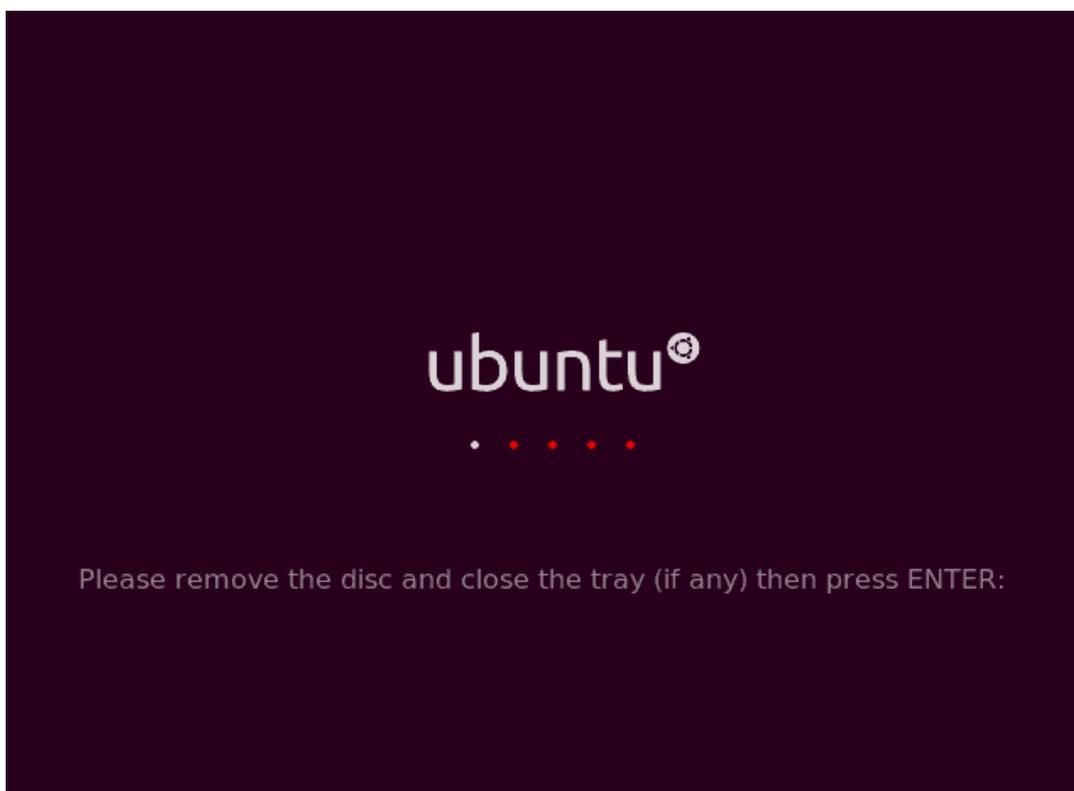


## Installation Complete and Reboot

Click '**Restart Now**' to Reboot your computer or '**Continue Testing**' to keep using the Live Image.



When prompted remove the DVD and press the **Enter** key



---

## Booting the Installed Ubuntu from CFE

After the computer restarts Press 'F' to boot to the CFE Prompt before the automatic timeout has completed.

To boot your Installed Ubuntu type the following commands followed by pressing **Return** in each instance.

```
CFE> setenv bootargs "root=/dev/sda1 quiet ro splash"
```

**Note:** you will need to replace /dev/sda1 with the device ID of your root partition and you will need to replace **cf0:** with **usbdisk0:** if you are using a USB-Stick card to boot the Linux Kernel.

```
CFE> boot -elf -noints -fatfs cf0:vmlinux-3.13.2
```

## Adding a CFE Menu Entry for Ubuntu.

To add a CFE Menu Entry for Ubuntu type the following command at the CFE prompt and press the **Return** key.

```
CFE> setenv -p MENU_4_COMMAND 'setenv bootargs "root=/dev/sda1 quiet ro splash" ; boot -elf -noints -fatfs cf0:vmlinux-3.13.2'
```

```
CFE> setenv -p MENU_4_LABEL 'Ubuntu 12.04 LTS'
```

**Note:**

1. Replace **MENU\_4\_COMMAND** and **MENU\_4\_LABEL** with the Menu number of your choice.
2. Replace /dev/sda1 with the device ID of your root partition.
3. Replace **cf0:** with **usbdisk0:** if you are using a USB-Stick to boot the Linux Kernel.

Type **Exit** to return to the CFE Menu.

## Credits

### Ubuntu Live Remix DVD and Installation Guide

The compilation of the Ubuntu Live Remix DVD and associated Installation Guide are provided by **Pat Wall**.

### AmigaONE X1000 3.13.2 Linux Kernel Source

The patched kernel source and .config file for Linux 3.13.2 are the culmination of efforts by **Christian Zigotzky & Darren Stevens** and are available in the **src** subdirectory in each users home directory i.e. \$HOME/src/linux-3.13.2 The necessary development tools are installed to enable you to compile your own kernel. Future kernel releases including patches and .config files will be made available from the A-EON website.

### AmigaONE X1000 Desktop Backgrounds

**Kevin Saunders** has designed five new AmigaONE Desktop Backgrounds especially for the Ubuntu DVD. You can check them out by right-clicking on the desktop and selecting **Change Desktop Background**. They are labelled “AmigaONE 001 to 005”.

### SuperTuxKart 0.8.1/AltiVec™

**Christian Zigotzky** has provided SuperTuxKart AltiVec™, a free 3D kart racing game. You can play with up to 4 friends racing against each other or just try to beat the computer. See the great lighthouse or drive through the sand and the visit the pyramids. Race under water or in space, watching the stars passing by.

### A-EON Technology Ltd

**A-EON Technology Ltd**, headquartered in Cardiff, Wales is the developer of Next-Generation AmigaONE hardware for the Amiga community. Our founders have a long history and tradition with Commodore and Amiga computers stretching back to 1981. First and foremost they are AmigaOS enthusiasts and wish to continue its legacy and tradition. However, just like Commodore they have an interest in alternative operating systems and are pleased to offer Linux support for their hardware. This Ubuntu Live Remix 12.04 LTS is the result of many months of work by a small and dedicated team and AmigaONE X1000 beta testers and owners.

## About the Ubuntu Live Remix 12.04 LTS DVD

The Ubuntu Live Remix 12.04 LTS DVD is based on the community supported port of Ubuntu 12.04 LTS for PowerPC.

The install guide is adopted from the official Ubuntu graphical install guide available at: <https://help.ubuntu.com/community/GraphicalInstall>

**Ubuntu** is an operating system based on the Linux Kernel and the Linux distribution Debian, with Unity as its default desktop environment. It is distributed as free and open source software. It is named after the Southern African philosophy of ubuntu (literally, "human-ness"), which often is translated as "humanity towards others" or "the belief in a universal bond of sharing that connects all humanity"

According to 2012 online surveys, Ubuntu is the most popular Linux distribution on desktop and laptop personal computers and most Ubuntu coverage focuses on its use in that market. However, it is also popular on servers and for cloud computing.

Development of Ubuntu is led by **Canonical Ltd.**, a company based in the Isle of Man and owned by South African entrepreneur Mark Shuttleworth. Canonical generates revenue through the sale of technical support and services related to Ubuntu. According to Canonical, the Ubuntu project is committed to the principles of open source development; people are encouraged to use free software, study how it works, improve upon it, and distribute it.

## Recommended Reading



### Ubuntu Desktop Guide

If you are new to Linux and Ubuntu the **Ubuntu Desktop Guide** is a good place to start. You can access it here at <https://help.ubuntu.com/12.04/ubuntu-help/index.html>



### Getting Started with 12.04 Second Edition

**Getting Started with Ubuntu 12.04** is a comprehensive beginners guide for the Ubuntu operating system. It is written under an open source license and is free for you to download, read, modify and share.

The manual will help you become familiar with everyday tasks such as surfing the web, listening to music and scanning documents. With an emphasis on easy to follow instructions, it is suitable for all levels of experience.

[https://ubuntu-manual.org/download/12.04e2/en\\_US/print](https://ubuntu-manual.org/download/12.04e2/en_US/print)



### AmigaONE X1000 Linux Installation Manual

If this is your first time to install a Linux Distribution on your AmigaONE X1000 HDD it is also recommended that you take the time to download and read the excellent **Linux Installation Manual** compiled by Trevor Dickinson.

The latest linux kernels and Linux Installation Manual are available for download from the secure download area on the A-EON Technology website which can be accessed by registered AmigaONE X1000 owners.

## Appendix

### RootSudo

**By default, the Root account password is locked in Ubuntu.** This means that you cannot login as Root directly or use the su command to become the Root user. However, since the Root account physically exists it is still possible to run programs with root-level privileges. This is where sudo comes in - it allows authorized users (normally "Administrative" users) to run certain programs as Root without having to know the root password.

This means that in the **terminal** you should use sudo for commands that require root privileges; simply prepend sudo to all the commands you would normally run as Root. Similarly, when you run GUI programs that require root privileges (e.g. the network configuration applet), use graphical sudo and you will also be prompted for a password. Just remember, when sudo asks for a password, it needs **YOUR USER password**, and not the Root account password.

For more information please refer to: <https://help.ubuntu.com/community/RootSudo>



And if you get stuck.....[Ask in the AmigaONE X1000 Linux forum!](#)