# Sync your iPad with Linux

Apple makes some great hardware. Here's how you can use your iPad, iPhone and iPod with your Linux computer…
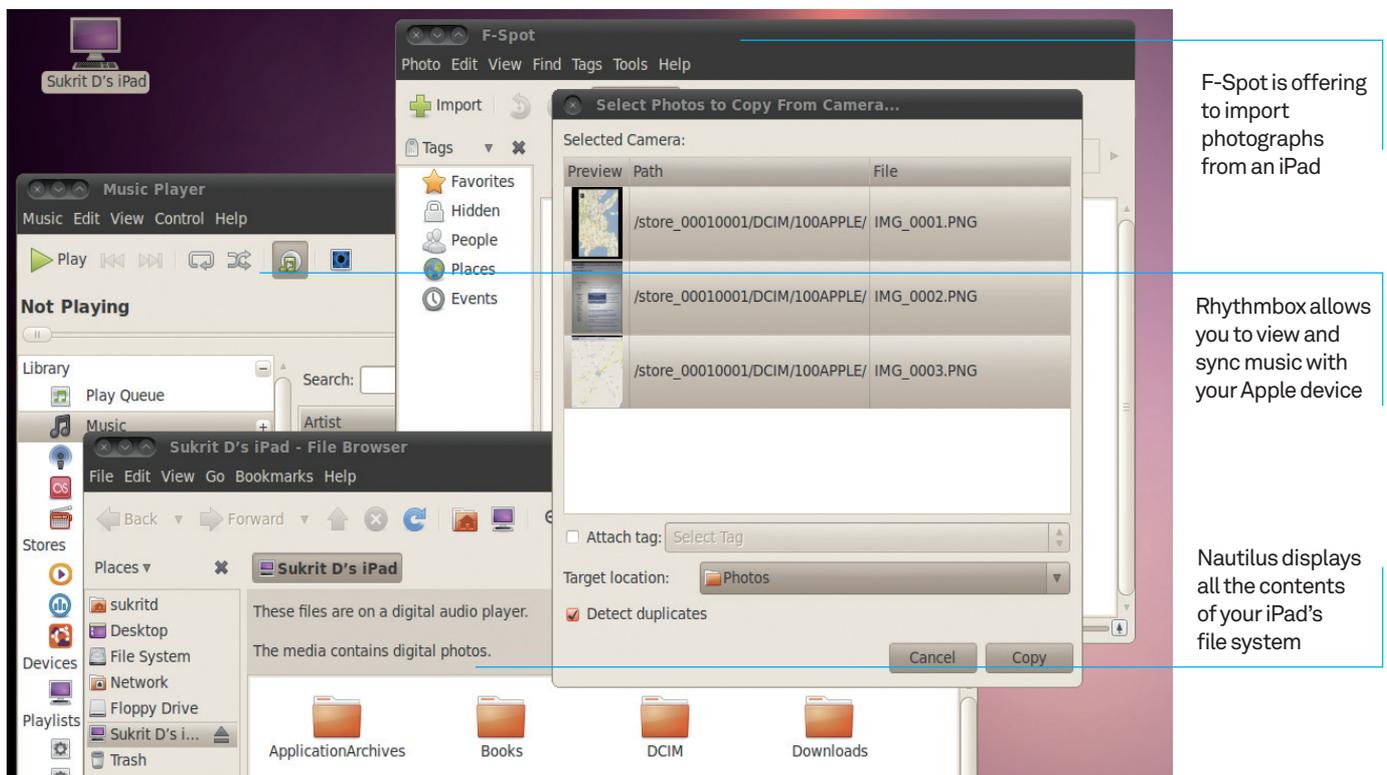


F-Spot is offering to import photographs from an iPad

Rhythmbox allows you to view and sync music with your Apple device

Nautilus displays all the contents of your iPad's file system

**Even if you are not a technology buff, it's hard not to notice how the iPad has taken over the world of gadgets.** Before its launch, the iPhone and the iPod touch had a similar impact and they are visible just about everywhere you go. All of Apple's portable devices use iTunes to synchronise their information with a computer, and iTunes is only available on Windows and Mac systems. So what is a Linux user to do with an iPhone or an iPad? Let's take a look at how you can get the maximum out of your mobile device as a Linux user. All the solutions that we look at here will work on your Apple mobile device without the device requiring to be jailbroken.

> **Note**
>
> All the software and syncing solutions discussed in this article are not built by Apple, and therefore cannot be guaranteed to work as suggested.

> " **All the solutions here will work on your Apple mobile device without the device requiring to be jailbroken** "

## Installation

### 1. Getting libimobiledevice

Both Ubuntu 10.04 and 10.1 support the iPhone, iPod touch and iPad out of the box. This is using the libimobiledevice project, which is hosted at **www.libimobiledevice.org**. You can visit the project's website (**Fig 1**) and download the source code, along with that of the supporting packages. Ready-made binaries for several popular distributions are also available from this website. However, the easiest way to get hold of the libimobiledevice packages is by using your distribution's package management system. For example, Ubuntu Linux and openSUSE have the software in their official repositories. Ubuntu 10.04 and 10.1 users can skip the next step.

Latest Release: 1.0.3

**Fig 1 Getting libimobiledevice** The libimobiledevice project website

## 2. Installing on Ubuntu 9.10

Although Ubuntu 9.10 does not ship with support for the Apple devices, you can set things up reasonably easily. Launch the package source manager by going to System>Administration> Software Sources. Click on the Other Software tab and then on the Add button. Now add the line 'ppa:pmcenery/ppa' as the source. Save it and hit the Reload button to reload the repository information. Now launch the Synaptic Package Manager and install the package 'libimobiledevice0'. Note that you will need to restart your computer for the installation process to complete correctly.



■ The recent releases of the Ubuntu distro offer out-of-the-box integration with all Apple mobile devices

## 3. Installing libimobiledevice for everyone else

If you have landed on a computer which does not have libimobiledevice pre-installed and you can't find it in your distribution's binary repositories, you can always download the source release of libimobiledevice and compile it yourself. First, make sure that you have the development tools required for compiling packages installed. Download the source package from the libimobiledevice project website and extract it to a temporary location. Get into the source directory and execute the following commands:

```
# ./configure
# make
# sudo make install
```

## 4. Plug and play

When you have set things up, you should plug your iPad, iPod or iPhone into your Ubuntu computer. Connect it with the USB cable that you got with your device. When you plug it in, you should see two windows pop up, like the ones shown in the screenshot below, and your device's icon appear on the Desktop. The two window panes will ask you which applications you want to use to view and manage the photos and the music on your device. The list that will appear depends upon what applications you have installed on your computer. If you see this screen, you should be in business. Let's proceed and see how you can manage the music, photos, video and other data on your Apple device.



■ An Apple iPad being detected and mounted in Linux

## Resources

**libimobiledevice** The project that allows you to sync your iPod, iPad, or iPhone to your Linux machine
**http://www.libimobiledevice.org**

**Handbrake** Software for converting videos from one format to another
**http://handbrake.fr/downloads.php**

**Fuse** File system that allows read-write access to your Apple devices
**http://fuse.sourceforge.net**

## Music

One of the pop-up windows that appeared when you connected your Apple device to your Ubuntu computer will ask you which application you want to use to manage the music on your device. Two players that have great support for these devices are Rhythmbox and Amarok.

### 5. Rhythmbox

Rhythmbox is the music player that ships by default with Ubuntu Linux, and is arguably one of the most popular music players on the Linux platform. When you connect your iDevice to you Ubuntu computer and Rhythmbox is running, the device should automatically show up in the Devices list on the left sidebar of the application's main window. Drag and drop any music you want added to your iPod, iPad or iPhone. One of the missing features in Rhythmbox is that it only allows you to add music to your iDevice and not remove stuff. If you want to be able to remove stuff, you will need to use Amarok.
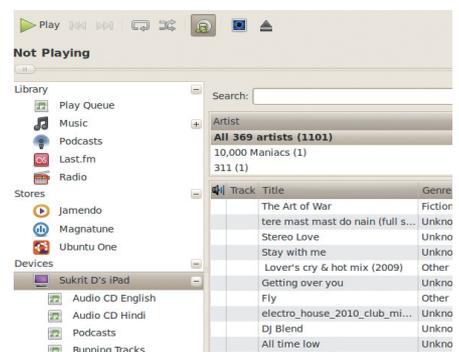


■ Rhythmbox displaying the list of music on an Apple iPad

### 6. Amarok

Amarok is a KDE project and is not included in the default list of packages that gets installed

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with Ubuntu Linux. You can, however, install it using the command '# sudo apt-get install amarok'. Once Amarok is installed, connect your iDevice to your computer. The device should show up under the Local Music sections. To remove a song from your iPod or iPhone, expand the device's music listing from the Local Music section, right-click on the song and click on the 'delete' option in the menu. Wait for a short while as the device syncs with Amarok. Hit OK when asked if you want to proceed with the sync. The selected track should then be deleted.
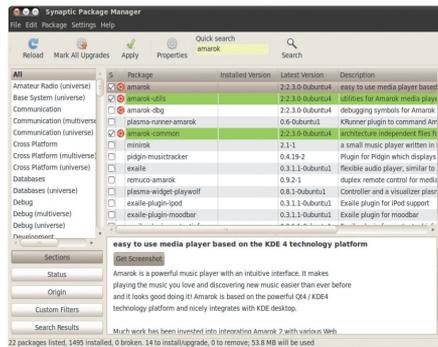

■ The installation of Amarok using the Synaptic Package Manager

## gtkpod

**gtkpod is yet another application for syncing your iPod, iPad or iPhone with Linux.** It's a bit trickier to get going, but considering the fact that the team is working on features such as calendar and contacts syncing, it might just trump all the other tools to become a one-stop shop for all your syncing needs.

### 7. Get Fuse
Before you can get going with gtkpod, you will need to install the package Fuse and its dependencies on your computer. Ubuntu Linux users can install it by searching for the term 'fuse' in the Synaptic Package Manager's list of available packages. Once Fuse is installed, you will need to edit the file '/etc/fuse.conf'. Open the file in your favourite text editor (with sudo privileges) and change the last line from '#user_allow_other' to 'user_allow_other' (ie remove the hash sign). Save the file and exit the text editor.


■ Edit the /etc/fuse.conf to look like this

### 8. Complete Fuse installation
Now launch the 'Users and Groups' manager from the System>Administration menu. Click on the Manage Groups button, find the group 'fuse' in the list and hit the Properties button. Check the box with your username on it in the pane that pops up. Click OK and close the windows. You should now have access to Fuse. For all the settings changes you made to kick in, you will need to log out and get back into your account.

### 9. Install gtkpod
Install gtkpod from Synaptic or by using the command '# sudo apt-get install gtkpod'. The application should appear under 'Applications>Sound and Video>gtkpod iPod Manager'. Now add your iPhone, iPad or iPod to the gtkpod setup by launching on Edit> Repository/iPod Options item in the menu. Give the repository a name such as 'My iPad'.

### 10. Set up gtkpod
Make sure your Apple device is connected to your computer before proceeding. Under your home directory you will see a hidden folder called .gvfs/. Your Apple device will be mounted under this directory with the device's name. Enter that as the repository mount point in gtkpod. For example, on our computer this path was '/home/sukritd/.gvfs/Phoebus iPhone'. Select your Apple device's model under the list of the models available. Hit Add and OK to complete the setup. On the main window of gtkpod, click on the Load iPod(s) button to have gtkpod fetch all the information from your Apple device. Make the changes you want to make and then hit the Save Changes button to apply the changes to your Apple device.


■ Enter the path of the location where your Apple device has been mounted, and the model, correctly

## Photos

### 11. F-Spot
F-Spot is the default photo management program that ships with Ubuntu up to 9.10, and it's a great application for this task. Apple's devices, particularly the iPhone 4, have been known to make great cameras. Using F-Spot you can import your pictures from your iPhone or iPod touch. When you plug in the device, you will be asked which photo management software you want to use to manage your pictures. Pick F-Spot. When F-Sport opens, it will offer to import all the pictures from your device.

## Video
One of the most fun features of Apple's mobile devices is their video playback capabilities. However, it's not always easy to get video on these devices unless you have purchased the movie directly from Apple. Let's look at how to do it.

### 12. Install Handbrake
The first step to get video on your Apple device is to convert the video at hand to a format that's compatible with the devices. We'll use the program Handbrake for this. Handbrake can convert video from pretty much any format to the iPod format. Download your distribution's binary from Handbrake's website – **http://handbrake.fr/downloads.php**. Install the binary for your distribution. Currently Handbrake only comes with a command-line version on Linux.


■ Get Handbrake from the project's website

### 13. Convert the video
Once you have the tool HandBrakeCLI installed, try accessing it from the command line to make sure it works. Once that's done, you can begin converting your first video. **Use a command like the following to make the conversion:**
```
# HandBrakeCLI -i /media/dvd -o mymovie.mp4 --preset="iPhone / iPod Touch"
```

In this example, the input file is a video DVD. Once the conversion is complete, you can use Rhythmbox to drag and drop the video into your Apple mobile device.

### 14. Video streaming

Getting video onto these devices can be quite time-consuming. What we recommend instead is to stream a movie to the device using a wireless network with Air Video. You can do this too. Install the Wine package on your Linux machine. Download the latest release of Java and install it in Wine using a command like '# wine ./java-winxp.exe'. Download the Air Video Server from the website (**Fig 2**) with '# wget http://www.inmethod.com/air-video/download/Setup225.exe'. Install it with Wine – '# wine ./Setup225.exe'. Once the installation is complete, you will be able to find Air Video in the menu under Applications>Wine> Programs>Air Video Server>Air Video Server. Launch the application and start sharing some movies from your computer.

### 15. Watch a streaming movie

Download and install the Air Video client app on your iPad, iPod or iPhone. There's a free limited version available from the App Store as well as a paid one that has full functionality. Launch the app and you should be able to see your desktop or laptop listed under the available servers. You can browse through the list of movies and watch one by streaming it. If you face any issues, take a look at the firewall settings on your computer and make sure that the port 45631 is allowed traffic.



■ A list of movies available for you to play from your Apple mobile device



Fig 2 **Video streaming** Air Video saves you a lot of time by not requiring you to convert the videos to another format

# Ubuntu One

Ubuntu One is a cloud-hosted storage and streaming platform from Canonical. It is available as a limited free version as well as a paid service with more space and features. You can use it to synchronise your iPhone or iPad contacts and other information with your Ubuntu computer.

### 16. Getting started with Ubuntu One

Head over to https://one.ubuntu.com and create an account for yourself. Then you will be instructed to add a repository to your installer setup. After this you can install the Ubuntu One client with the command '# sudo apt-get install ubuntuone-client'. Once the installation is complete, you should find the Ubuntu One application installed under Applications> Internet>Ubuntu One. Follow the steps shown in the application in order to add your computer to your account.

### 17. Set up your device

Head over to https://one.ubuntu.com/mobile/ and set up your device with your account. Note that the mobile version of this service comes at a price, which is mentioned on the website. You will require a username and password for this account. Take note of this information as you will need it later.

### 18. Install Ubuntu One Contact

On your Apple mobile device, search for and install the Ubuntu One Contact app from the App Store. Launch it and enter your username and password along with the server address as 'http://syncmbl.one.ubnutu.com'. Once you have done all this, like magic, your contacts will be synced with your account. Go to the Contacts tab in the Ubuntu One Dashboard to view them. You can set the details of how you want the sync to your account on the app on your mobile device.

# Nautilus

### 19. Integration with Nautilus

If you are an Ubuntu 10.04 or 10.1 user, one thing you might notice is how well your Apple device integrates with the Nautilus file manager. You can not only browse through the contents of your device, but Nautilus also gives you a link to view and manage your photos and music with the applications available for these tasks.
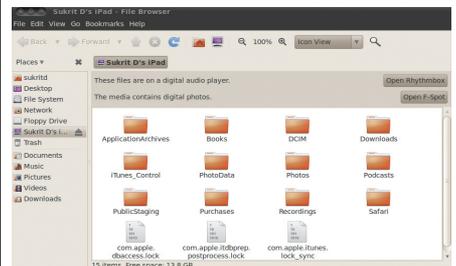


■ You can view all the contents of your device's file system in Nautilus. Be careful not to mess around with any files

### 20. Unmount

When you are done with using your iPad, iPod or iPhone with Linux, make sure you unmount the device before you unplug it from the computer. Right-click on the Desktop icon and select the Unmount option. When the icon disappears, it's safe to unplug the device.
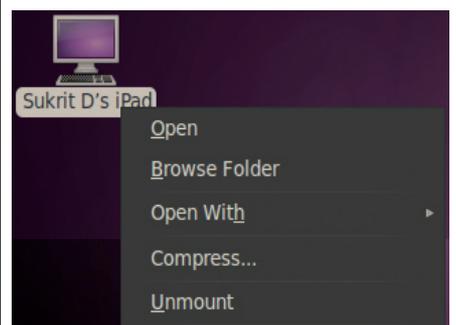


■ Right-click to unmount your device before unplugging it

## Advisor
**Sukrit Dhandhania** has spent several years working professionally implementing different open source tools for companies. During this time he has evaluated, set up and maintained various open source tools for these firms