



**gtkpod User Manual**  
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# Chapter 1: Introduction

## 1.1 What is gtkpod?

gtkpod is a platform independent GUI for Apple's iPod using GTK2. It allows you to upload songs and playlists to your iPod. It supports ID3 tag editing, multiple charsets for ID3 tags, detects duplicate songs, allows offline modification of the database with later synchronization, and more. (Taken from <http://gtkpod.sourceforge.net>).

## 1.2 Who is this manual for?

This manual is for anyone with an interest in using the gtkpod software. Generally this set of people consists of Linux users who own an iPod, but it is not at all limited to that set of people. If you do not have basic experience with the Linux operating system, then you may find this manual a little difficult to understand. With a little determination anyone should find this manual very useful in gaining an understanding of gtkpod; from installation to advanced use.

## 1.3 How to use this manual

This manual can be considered anything from a simple gtkpod tutorial to an advanced reference of gtkpod. It covers all bases in the usage of gtkpod. This manual is organized in an advancing design, starting with the most basic aspects of gtkpod usage including installation and starting the program, and concludes with explanations of the most advanced features of gtkpod such as volume normalization configuration.

## Chapter 2: Installing gtkpod

### 2.1 System Requirements

Before you can install gtkpod on your system, your system must meet some very basic requirements. Most of these requirements are standard at the time this manual was written.

- An x86, SPARC, IA64, or AMD64 system
- A GNU distribution of Linux running kernel 2.4.x or 2.6.x compiled with support for USB or Firewire device file systems, and support for either a VFAT or HFS file system

**Note:**

Most any Linux distribution will satisfy the previous requirement, but some common ones are Redhat, Mandrake, Linspire (Lindows), Debian, and Gentoo.

- You must be running the X windowing system

**Note:**

If you have a graphical user interface at all, then there is a 99% chance that you are running the X windowing system.

- Your system must have the GTK2 libraries installed

**Note:**

This library is usually required by other programs you might run, and is probably already installed on your system.

- 5 Megabytes of available hard disk space
- At least 16 Megabytes of system memory
- A working internet connection
- An iPod of any generation, including the most recent 4<sup>th</sup> Generation iPods.

### 2.2 Getting The Files You Need

The latest version of gtkpod can be downloaded from:

**[http://sourceforge.net/project/showfiles.php?group\\_id=67873](http://sourceforge.net/project/showfiles.php?group_id=67873)**

To download gtkpod from the command line, open the link in your favorite browser. Once there click on `gtkpod-x.x-x.tar.gz` (where the x's denote a version number). You should now be taken to a list of mirror servers from which you can download gtkpod. Copy the link location of the archive and mirror you'd like, and at your command line type:

```
wget http://prdownloads.sourceforge.net/gtkpod/gtkpod-x.xx-x.tar.gz?use_mirror=xxx
```

Where x.xx-x is the version of the archive you chose, and xxx is the mirror you chose. Alternatively you can just click on the link to a mirrored copy of your desired archive in your browser and your browser should hand the file download accordingly. You should now have an archive of the latest version of gtkpod in your current working directory, or a destination that you chose.

## 2.3 Extracting Files

Extracting your files is simple. Since you will probably be performing the rest of the installation from a command line, it is probably a good idea to open one now. From the command line browse to the location at which you put your gtkpod archive.

```
cd /path/to/directory/of/gtkpod/archive
```

Once there, simply type the following command, and you are well on your way to installing gtkpod:

```
tar -xzvf gtkpod-x.x-x.tar.gz
```

This command extracts a gzipped tar file. A directory named gtkpod-x.x-x will be created containing the gtkpod source code. Once again here the x's represent a variable version number.

## 2.4 Configuring And Compiling

Before gtkpod can be installed into a usable form, it must first be configured and compiled. Luckily for us, both of these tasks are pretty well automated in GNU Linux. To perform both of these tasks, simply browse to your newly created gtkpod directory that contains the gtkpod files for the version you're installing, and type:

```
./configure  
make
```

### Note:

It is normal for a lot of text to be printed at your command line.

### Note:

Each command you issue will be finished once new text does not appear at your command line for a long period of time. This period of time will lengthen for slower processors, and inversely shorten for faster processors. Each command you issue is complete once you are returned to your command prompt.

If the previous commands ended in error (there was a very long error message or sequence of error messages printed to your screen, and compilation exited abnormally),

then one of two things has happened. You have either not met the system requirements in some way, or you have found an error in the gtkpod installation. Usually the problem is not the latter of these two. If you did not get a compilation error (you got an error when running `./configure`), then try to decipher the error message and see what your system is missing such that the gtkpod install cannot complete. If you got a compilation error when running `make`, you've most likely found a bug in gtkpod, and we would like for you to tell us about it! Please visit <http://gtkpod.sourceforge.net> for information on doing so.

## 2.5 Installing The gtkpod Binaries

In Section 2.4 you generated some binary executables by compiling the gtkpod source code. Now in order to make using gtkpod easier, we will install those binaries into appropriate places on your system. There is an easy way of doing this, but it requires that you be logged in as a superuser in order to protect the security of your system. A quick way to get access to a superuser terminal from your command line is the `su` command. To install the gtkpod binaries, run the following commands:

```
su  
    <enter in your superuser password>  
make install
```

This will install the gtkpod binaries to standard places on your system and make them readily available for use.

## 2.6 Connecting An iPod To Your System

In order for gtkpod to work, your system must be able to “talk to” your iPod. This is done by loading the appropriate kernel module. The appropriate kernel module is a program that runs in the background of your system listening for incoming Firewire or USB connections. Once it receives a connection from a device, and finds out that that device is a storage device, it creates a usable “link” to the device if your kernel also can determine what file system is used by that device (either HFS or VFAT, which your kernel should support for use with your iPod). If you're unsure whether or not your kernel is compiled with the appropriate modules, consult your Linux distribution's user manual and forums.

Supposing that your kernel is setup correctly, the only thing left to do is to plug an iPod into your system, and mount the iPod to a location on your file system. We will assume that your kernel has assigned your iPod to the device link `/dev/sda`, and thusly your kernel has assigned your iPod's file system partitions to the device links `/dev/sda1` and `/dev/sda2`. Do not ever touch the `/dev/sda1` device link, as that is where your iPod stores it's own low-level software. We are concerned with your `/dev/sda2` device link, which is where your iPod stores music and other miscellaneous files.

gtkpod would like to automatically mount your iPod for you every time you start gtkpod. In order for this to work you must provide gtkpod with access to do so. This involves adding a line to your `/etc/fstab` file, and creating a directory for your iPod to be mounted at. To do this you must be logged in as superuser, but for simplicity we will utilize the `su` command. We'll create the iPod's mount directory using the `mkdir` command. To edit the

file, open it in your favorite text editor (here we use the popular command line editor pico, but nano is used on some systems):

```
su  
<enter in your superuser password>  
mkdir /mnt/ipod  
pico /etc/fstab
```

Once open, you can now start making changes to your `/etc/fstab` file. Move your cursor to the end of the file, and type the following line:

```
/dev/sda2      /mnt/ipod    vfat          noauto,rw,user    0 0
```

Replace `sda2` with the appropriate device link to the “music” partition of your iPod. If your iPod has not been formatted with a VFAT file system (this is done using the iTunes software in Microsoft Windows), then replace “`vfat`” in the previous line with “`hfs`”.

Once you've finished making changes to your `/etc/fstab` file, save your changes (in pico or nano this is done by hitting CTRL+O), and exit the program (this is done by pressing CTRL+X in pico or nano).

**WARNING:**

Do NOT disconnect your iPod from your system without first ejecting it from your device links. If you do so, the file system on your iPod can easily be corrupted. The commands to eject your iPod are:

```
su  
<enter in your superuser password>  
eject /dev/sda2
```

Supposing that your kernel assigned your iPod to the device link of `/dev/sda`.

## Chapter 3: Starting gtkpod

### 3.1 From The Command Line

Starting gtkpod from the command line is as simple as going to a terminal and typing:

```
gtkpod &
```

### 3.2 From KDE

To start gtkpod from KDE, you must either add a desktop shortcut to gtkpod, or alternatively add a Kmenu item for gtkpod.

To add a desktop shortcut, right click on your wallpaper and select:

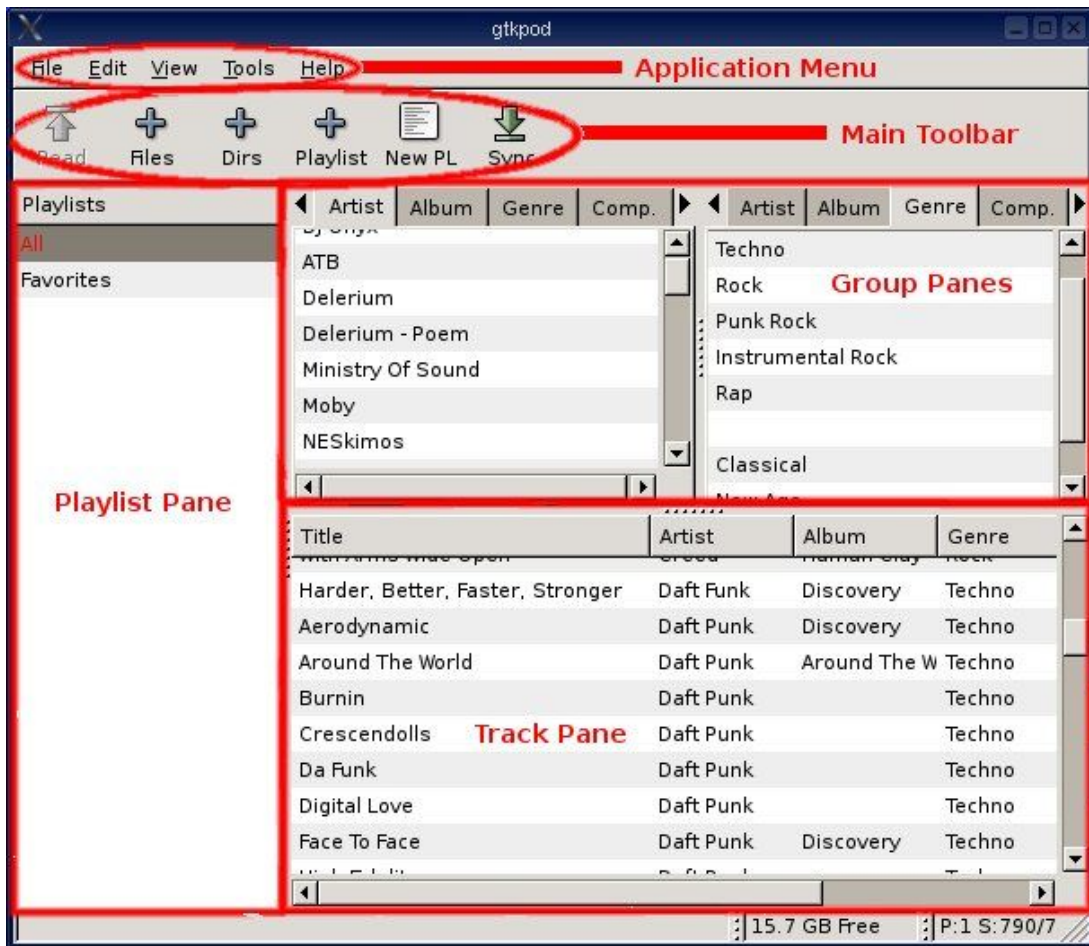
**Create New | File | Link To Application**

In the General tab, enter in a label for the new link. After that select the Application tab. Once there enter in a Command of “gtkpod”. Optionally an icon for this new link can be selected by clicking on the gear icon in the General tab.

To add a Kmenu item for gtkpod, right click on the K button on your task bar, and select Menu Editor. Once there select File | New Item. In the new dialog box, type “gtkpod”, or something appropriate to label the new menu item, and click OK. You'll now notice a new entry with a name you just specified. Click on that entry, and in the right pane of the window, in the Command text box enter “gtkpod”. Optionally you can select an icon for this new menu item by clicking on the blue and white paper icon in the upper right of the right pane. Once you've finished making your changes, select File | Save to save your changes.

To start gtkpod from KDE, select the desktop shortcut or menu item that you just created.

## Chapter 4: The gtkpod Graphical User Interface



### 4.1 Application Menu

#### 1. The File Menu

- This menu allows access to the basic tools of gtkpod, including the abilities to read an iTunes database from the iPod, add files to the currently selected playlist, add directories of files to the currently selected playlist, add a playlist to the currently selected playlist, creating a new playlist, and uploading the current organization to the iPod. Note that the majority of these features can be accessed from the Main Toolbar.
- This menu also allows some advanced file management such as syncing from the iPod to the local file system, or visa versa.
- If your iPod has somehow lost its directory structure, you can create new iPod directories using this menu, as well as check that existing ones are valid.
- Finally this menu allows you to take your iPod offline, and also to quit the program.

## **2. The Edit Menu**

- This menu gives access to advanced playlist creation and management features, such as creating a playlist for each selected album, or randomizing the current playlist. The Edit Menu also allows you to delete playlists or selected tracks from your iPod.
- You can also access all sorting methods from the Edit Menu, allowing you to quickly organize your music into an order that you prefer.
- gtkpod configuration is accessed from this menu, or alternatively by pressing CTRL+P.

## **3. The View Menu**

- From this menu, you can enable or disable the Main Toolbar, tooltips, and Information Window. A check box next to a menu item means that that item has been enabled.
- If you feel that you need more or sets of tabs in the Group Panes, you can add or remove entire sets of tabs using the menu options More Tabs or Less Tabs.
- The Arrange Sort Tabs feature evenly distributes the groups of tabs over the space allotted to the Group Panes, and sorts the list items in each group of tabs.

## **4. The Tools Menu**

- gtkpod seamlessly integrates with your favorite music player in order to allow you to play music as you manage it with gtkpod. From the Tools Menu you can play or enqueue entire playlists or currently selected tracks.
- The Tools Menu also allows you to normalize the volume on any combination of tracks.
- If you wanted to synchronize your contacts or calendar, the Tools Menu is what you would use to do so.
- Many features in the Tools Menu depend upon your currently chosen gtkpod configuration which is set by the Edit Preferences option of the Edit Menu.

## **5. The Help Menu**

- From the Help Menu you can access information about gtkpod, and eventually you will be able to access this manual from the Help Menu.

### **4.2 Main Toolbar**

- The Main Toolbar allows for quick access to the main features of gtkpod.
- From this toolbar you can quickly read an iTunes database from your iPod, or just as easily sync your current playlist configuration to your iPod.
- This toolbar is also a quick and easy way to add files, directories, or playlists to the playlist you're currently editing, or alternatively create a new playlist.

### **4.3 Playlists Pane**

All of the playlists that are read from your iPod are initially placed here. Playlists that you add will also go here, ultimately to be synced onto your iPod. Selecting a playlist from this pane modifies the information displayed in the Group Panes and Track Pane, as the Playlist Pane governs them both. Playlists can be quickly managed by right clicking on a

playlist.

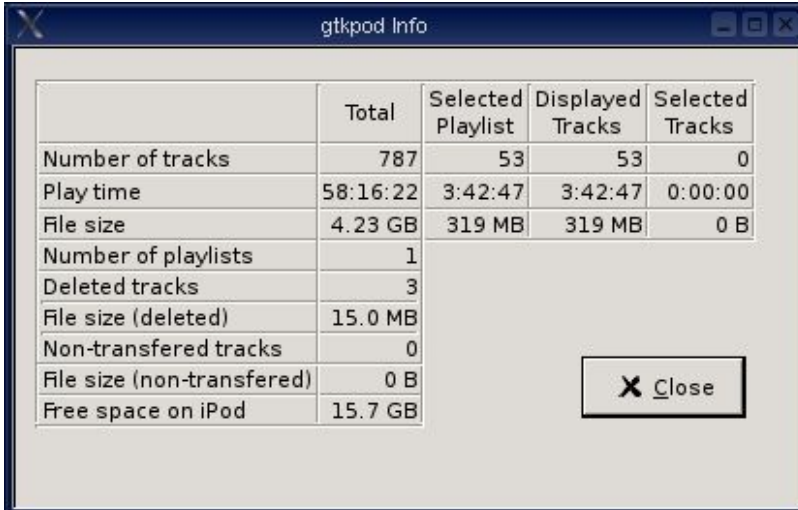
#### 4.4 Group Panes

The Group Panes each maintain a group of tabs. Each tab shows abstracted information about the songs in the currently selected playlist. Selecting a different tab shows the appropriately labeled information in that pane. Selecting a single list item in a Group Pane will change what is displayed in the Track Pane. Depending upon which tab and list item are currently selected, the according tracks will be displayed in the Track Pane. For instance if you selected the Artist tab, and from the list under the Artist tab you selected the artist My Band, all tracks my My Band would be displayed that have been added to the currently selected playlist. Group Panes can be created or removed using the View Menu explained in Section 4.1. Using multiple Group Panes at once allows you to more filter out the tracks displayed in the Track Pane. Right clicking on a list item in a Group Pane will allow you fast access to actions that can be performed on the selected item.

#### 4.5 Track Pane

The Track Pane displays tracks found in the currently selected playlist that match the requirements set forth by the selections made to a Group Pane. Right clicking on a track in the Track Pane will allow you fast access to many features to perform on the selected track.

#### 4.6 Information Window



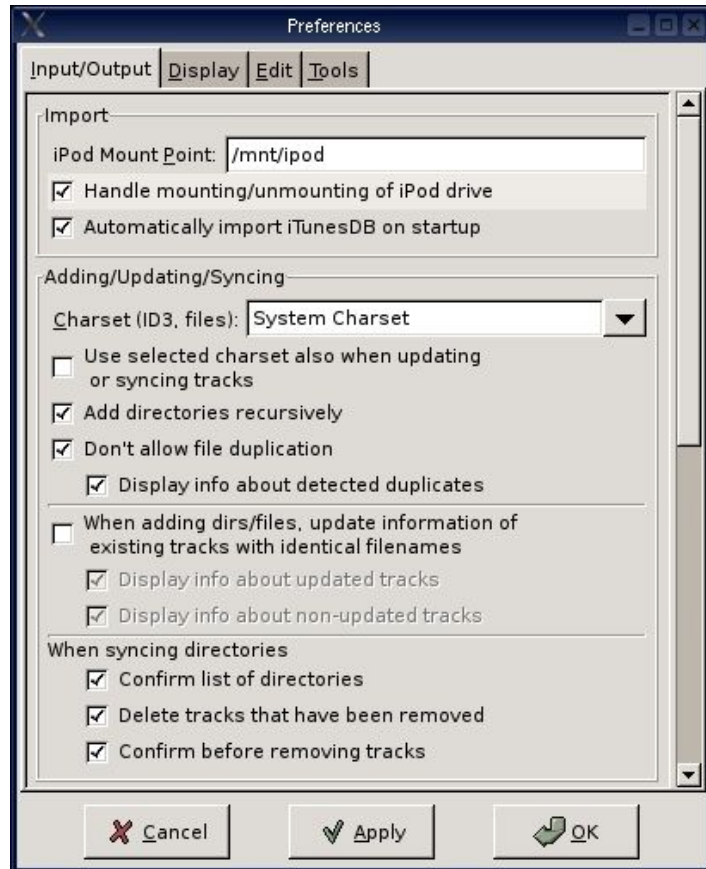
The screenshot shows a window titled "gtkpod Info" with a table of statistics. The table has five columns: an unlabeled column for the metric, "Total", "Selected Playlist", "Displayed Tracks", and "Selected Tracks". The data rows are as follows:

|                             | Total    | Selected Playlist | Displayed Tracks | Selected Tracks |
|-----------------------------|----------|-------------------|------------------|-----------------|
| Number of tracks            | 787      | 53                | 53               | 0               |
| Play time                   | 58:16:22 | 3:42:47           | 3:42:47          | 0:00:00         |
| File size                   | 4.23 GB  | 319 MB            | 319 MB           | 0 B             |
| Number of playlists         | 1        |                   |                  |                 |
| Deleted tracks              | 3        |                   |                  |                 |
| File size (deleted)         | 15.0 MB  |                   |                  |                 |
| Non-transferred tracks      | 0        |                   |                  |                 |
| File size (non-transferred) | 0 B      |                   |                  |                 |
| Free space on iPod          | 15.7 GB  |                   |                  |                 |

A "Close" button is located at the bottom right of the window.

The Information Window displays a multitude of information about your current gtkpod session. The table layout of the window is for the most part self-explanatory.

## Chapter 5: Configuring gtkpod



### Note:

The Preferences dialog can be accessed from the Edit Menu, or by pressing CTRL+P.

### Note:

To apply your configuration changes, simply click Apply, and then click OK to close the dialog.

### 5.1 Input/Output

The Input/Output tab contains all configurations regarding data input and output to your iPod. It is mainly divided into two sections: Import Configuration and Adding/Updating/Syncing Configuration. The properties of both are listed and labeled, and should be self-explanatory.

### 5.2 Display

From the Display tab you can customize the way gtkpod displays information to you. Here you can select what data is displayed in the Track Pane, as well as customize gtkpod's toolbars. A nice feature is at the bottom of this list; blocking the display when

changing a playlist or tab entry will greatly increase the speed at which gtkpod processes requests.

### **5.3Edit**

The Edit tab allows you to turn gtkpod into an entire music management tool. From here you can have gtkpod write your track modifications to the local hard disk. You can also enable Multi-Edit to edit multiple title tags at once. You can limit the number of tracks to be put in an automatically generated playlist. If you would like to modify when delete confirmation dialogs pop up, then the Edit tab allows for these changes.

### **5.4Tools**

In the Tools tab you can modify what music player gtkpod uses to play tracks that you tell it to, and also modify the command used for volume normalization, contacts, and calendar synchronization. Volume normalization requires that you have the mp3gain program installed upon your system. To setup volume normalization enter in the path to that program in the Volume Normalization section.

gtkpod is distributed with multiple scripts to synchronize contacts and your iPod's calendar. These scripts are found in `/usr/local/share/gtkpod/scripts/`. If one of these scripts meets your specific needs, enter in the command to use the script into the corresponding text box in the Contacts/Calendar section.

## Troubleshooting

### **I could not get gtkpod to compile, the configure script or makefile gave me an error, what do I do?**

Read the error to see if you can determine the problem. If in the configure script you were notified that you did not have one of the required programs or libraries, you should look into getting the program or library specified. If you got a compilation error, you have probably found a bug in gtkpod or the gtkpod installation, and we would like to know about it. Please visit <http://gtkpod.sourceforge.net/> for contact details.

### **When I start gtkpod and try to read the iTunes database off of my iPod, gtkpod says it was unable to do so, what's wrong?**

Make sure that you setup a mount point for your iPod, and listed that mount point in your fstab file, giving users permission to mount and unmount it at will. Your fstab file may need to be changed over time as you connect and disconnect your iPod from your system, as your kernel could potentially assign the iPod to a different device link, thus making the /mnt/ipod line of your fstab file invalid. Also check to make sure the file system on your iPod is intact. Disconnecting an iPod without ejecting it first can corrupt the file system on your iPod.

### **gtkpod dies consistently when I perform a certain task, what should I do?**

You've most likely discovered a bug in gtkpod. Please visit <http://gtkpod.sourceforge.net/> to get information on submitting a bug.

### **I would like to contribute to the gtkpod project, where do I start?**

If there is a feature you would like implemented or a bug you would like fixed and you know how to fix it, please create a patch of your working gtkpod source, and send it to the destination specified at <http://gtkpod.sourceforge.net/>. Your patch will be reviewed and implemented if found beneficial to the gtkpod project.

## **Appendix A: Upgrading gtkpod**

Upgrading gtkpod is as simple as going through the installation process again. The gtkpod configuration is stored in your home directory, which is unaffected by an installation. Performing another installation merely overwrites the program files on your system, thusly updating gtkpod.

## **Appendix B: Legal Information**

- iTunes and iPod are trademarks of the Apple Corporation.
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