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## Abstract

Amarok is a media player for the K Desktop Environment.

## Chapter 1

## Introduction



Amarok is an audio player for KDE that is extremely powerful, yet surprisingly simple to use.

With Amarok you can simply drag and drop music into the playlist instead of searching through endless menus. Just looking for that one song in a huge collection? Amarok's collection browser with its quick-search bar will help you find it in a matter of seconds.

It may seem that Amarok has the same old features found in the average audio player, but we did not stop there. One look at the context browser and you will see why Amarok is one step ahead of the rest. The context browser shows all kinds of information related to your currently playing track - from the album cover, through to other music by the same artist, as well as related artists - an informative and fun way to learn about your collection!

Do you already have many different playlists but can never decide on which one you want to use? Then the playlist browser is just for you. Never know what to listen to? Amarok's Dynamic Mode will choose your music for you, and Smart Playlists allow you to jump right in to specific parts of your collection.

Amarok has outstanding support for Apple's iPod, iRiver's ifp and a multitude of generic USB devices. It also features many different audio backends allowing YOU to choose how you listen to your music. These and other features

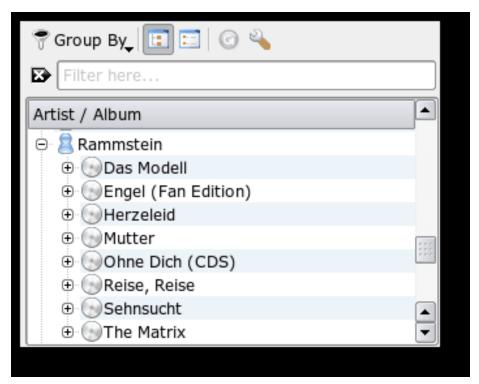
make it the most advanced audio player available. Amarok is smart, sexy and clever. We hope that its use will truly allow you to "Rediscover your music!"

# **Chapter 2**

# **Amarok Quick Start Guide**

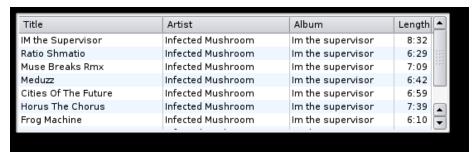
Listening to music should be easy. To this end we have provided a First-Run Wizard which presents itself the first time Amarok is run. For those who wish to update their collection later on, or not use the wizard, this Quick Start Guide is for you. It will help you have Amarok up and running in minutes.

## 2.1 Building a collection



Building your collection is an essential step in using all of Amarok's features. From the Collection Browser, click the Configure Folders button located in the toolbar. Next you will choose which folders you would like to be in your collection from the Configure Collection dialog. Also from here you have the option to Scan folders recursively, Watch folders for changes, and Import playlists that are found in the collection folders. After selecting your folders, and checking any relevant check boxes, click the OK button. After the initial scan, your collection is built and you can move on to making a playlist.

## 2.2 Making a playlist



Making a playlist is as simple as dragging items from the Collection Browser Tree View into the Playlist. To make searching for items easier, a text box is provided for filtering your collection. Just start typing in the text box, and the Tree View will change to show only the relevant results. After you are satisfied with your playlist, you can save it by clicking the Save Playlist As button found in the Playlist menu.



If you have your own playlists, you can add them in the Playlist Browser by clicking the Add button and choosing the Playlist... option in the toolbar. If your collection folders have your playlists in them, and you selected the Import Playlists in the collection setup, your playlists will already be in the Tree View. Right clicking a playlist in the Tree View will give you several options of how to load the playlist.

## 2.3 Listening to streams

Radio streams in Amarok are played by adding them from the Playlist Broswer. Amarok comes with a select set of streams for our listeners to enjoy, Cool Streams. Double-cliking or dragging an entry will load it into the playlist and once there it can be played. To add your own streams to the Playlist Browser click on the Add button in the toolbar and choose Radio Stream... from the dropdown box options. After adding your custom stream it can also be played after loading into the playlist.

## 2.4 Playing an audio cd



To play an audio cd, select Actions  $\rightarrow$  Play Audio CD in the Playlist Menubar. The File Browser will open showing several folders and also the cd tracks listed in the WAV format. Drag the WAV files into the playlist and click the Play button.

#### Note

The Play Audio CD feature uses the audiocd:/ protocol and is not compatible with all of the available engines.

## 2.5 Burning an audio cd

Burning an audio cd in Amarok is easy thanks to the K3B integration. To burn an album, first open the Collection Browser. Next, by expanding an artist's entry in the Tree View, right click the album you wish to burn. A pop-up menu will open, click Burn This Album, and a dialog will open prompting you to choose a mode for burning. From the dialog click the Audio Mode button, K3B will open ready to burn the album.

#### Note

Burning functionality is also provided in the Playlist. Simply right click an item in the Playlist and follow the Burn menu for multiple cd burning options.

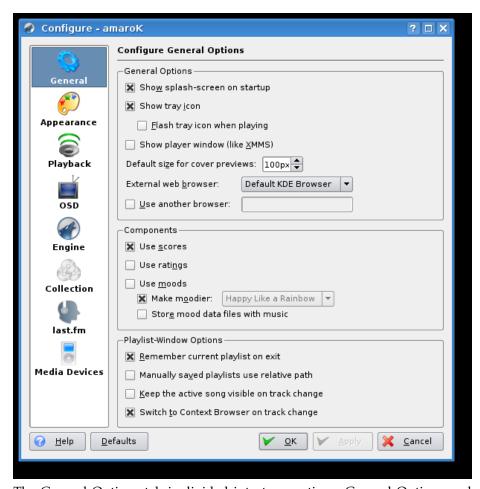
## **Chapter 3**

# **Configuring Amarok**

Amarok is easily configured from the configuration dialog. The configuration dialog has multiple tabs for setting up different functions of Amarok.

The configuration dialog can be found by selecting Configure Amarok in the player right mouse button menu, or by selecting Settings  $\rightarrow$  Configure Amarok....

## 3.1 General Options



The General Options tab is divided into two sections, General Options and Playlist Options.

**General Options** In the General Options section you can configure some basic Amarok options.

Show splash-screen on startup: displays the splash screen when Amarok starts.

Show tray icon: enables the display of the system tray icon.

Flash tray icon: enables animation of the system tray icon.

Show player window (like XMMS): Turns on the XMMS-like Player Window. When un-checked, only the Playlist Window, which resembles a display mode similar to the Juk interface, is shown.

Use Moodbar: only visible when Amarok is compiled with moodbar support. This turns on the experimental moodbar support.

Make Moodier: only visible when Amarok is compiled with moodbar support. It changes the color scheme used for the moodbar.

Store Mood data files with music: only visible when Amarok is compiled with moodbar support. When enabled, this option allows saving of .mood files in the same location as the corresponding audio file. When disabled, the .mood files are saved within the Amarok settings directory; usually /.kde/share/apps/amarok/moodbar/.

Default size of cover previews: allows adjusting the size of the album cover image in the Context Browser.

External web browser: allows choosing what Amarok uses to open external links via a drop-down menu listing the installed browsers.

Use another browser: allows you to specify the location to a browser not listed in the above menu.

**Playlist-Window Options** In the Playlist-Window Options section you can configure playlist behavior.

Remember current playlist on exit: check this if you want to save your current playlist when you exit Amarok and reload it the next time.

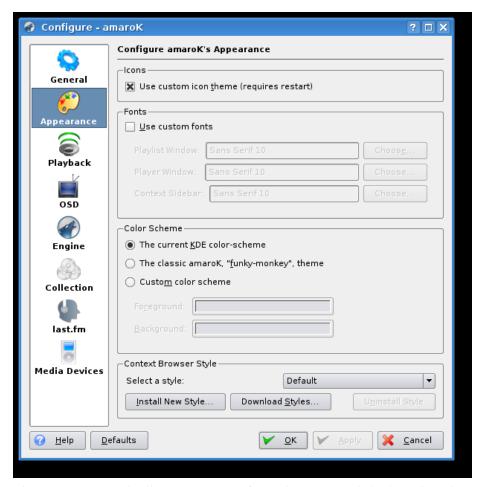
Manually saved playlists use relative path: check this box to have Amarok save playlists with the location of audio file with respect to the location of the playlist. When unchecked Amarok will save the exact location to the audio files in the playlist.

Keep active song visible on track change: this option automatically scrolls the Playlist, when a track changes, to ensure that the currently playing track is always visible.

Switch to Context Browser on track change: used to change to the Context Browser tab if it isn't active when Amarok starts playback of a new track.

Show statusbar: enables the Amarok statusbar in the Playlist Window.

## 3.2 Configure Appearance



The Appearance tab allows you to configure how Amarok looks. The tab is divided into three sections.

Fonts The fonts section is used for selecting the fonts to be used with Amarok. Selecting the Use custom fonts checkbox enables font selection buttons. The available choices are for the Player Window, the Playlist Window, and the Context Browser. By clicking the Choose... button you can select a font from the dialog.

**Color Scheme** The color scheme section is used to choose the color scheme for Amarok.

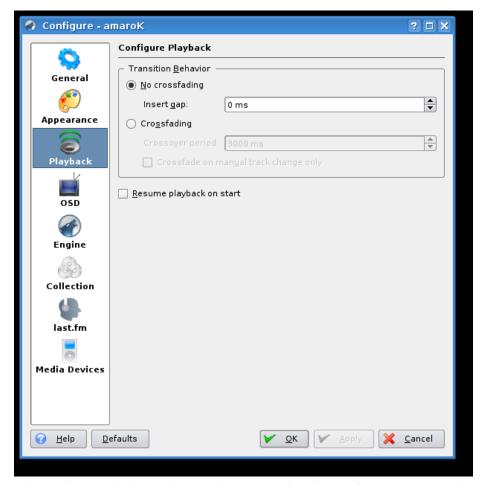
The current KDE color-scheme choice forces Amarok use the current KDE color scheme.

The classic Amarok, "funky-monkey", theme choice uses Amarok's original color scheme.

Custom color scheme enables color selectors to choose custom foreground and background colors for Amarok.

Context Browser Style This section allows you to change, install and remove Context Browser styles (themes). The Select a style drop-down menu selection of installed styles for use. The Install New Styles... button opens a file selection dialog where you can browse to styles saved on your system and install them. The Download Styles... button opens a dialog that fetches new styles from kde-look.org. Finally, the Uninstall Style button shows a dialog which allows you to remove any manually installed styles.

## 3.3 Configure Playback



The Configure Playback tab provides an interface for configuring your audio playback characteristics.

**Transition Behavior** You can configure how Amarok transitions from one song to the next.

No Crossfading: provides a silent gap between tracks, specified in milliseconds.

Crossfading: provides a nice fading effect. The crossfade period is also specified in milliseconds.

**Remaining Options** The remaining checkbox configures the the following option:

Resume playback on start allows resuming playback of the last track that was playing when Amarok was closed, from the last known position in the track.

## 3.4 Configure On-Screen-Display



Configure On-Screen-Display The Configure On-Screen-Display tab allows you to activate the On-Screen-Display. If the On-Screen-Display check box is selected an area is activated for configuring the look of the display. When the On-Screen-Display is activated a preview widget will also be displayed allowing you to see the effects of your changes to the look of the On-Screen-Display

The first option for the OSD is the Font. Clicking the Choose button will open a Font Selection dialog allowing you to choose the font used in the OSD. There is also a Draw shadow checkbox to enable or disable the use of Shadowed text in the OSD

The next option is for the OSD colors. Checking the Use custom colors

checkbox enables the Text color: and Background color: buttons. Clicking the buttons opens a dialog to choose the color OSD Text or OSD Background. If the Use custom colors checkbox is disabled the OSD will follow your current KDE color scheme.

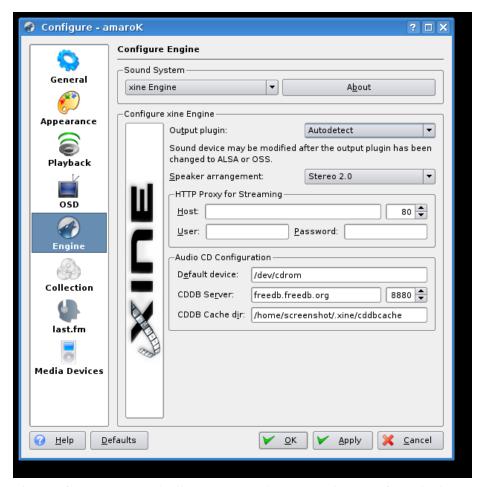
The Display Text text input box is used for configuring the text shown in the OSD. By assigning variables you can customize the OSD to suit your needs. Below is a list of the variables and the text they represent.

Text	Variable
Title	%title
Album	%album
Artist	%artist
Genre	%genre
Bitrate	%bitrate
Year	%year
Track Length	%length
Track Number	%track
Filename	%file
Comment	%comment
Score	%score
Playcount	%playcount

The Duration spin box is used to adjust the time, in milliseconds, that the OSD is displayed on your desktop.

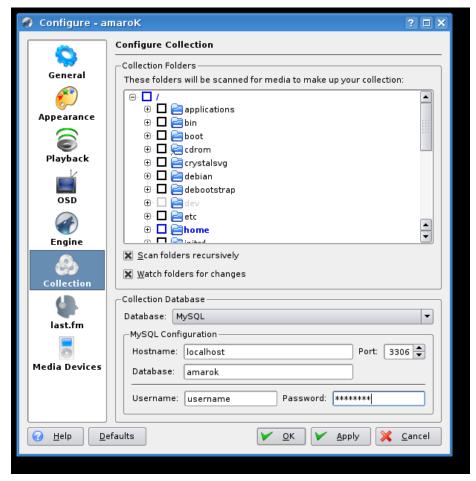
The Screen option is for xinerama users only. This option is used to determine what screen the OSD will be shown on in a multiple monitor setup.

## 3.5 Configure Engine



The Configure Engine tab allows you to select a sound engine from the list in the drop-down menu. Available options vary among the engines selected. See the "Requirements" section for different engines available.

## 3.6 Configure Collection



The Collection settings tab is used for configuring all the collection options. These include the folders where you music is stored, and the database used for the collection.

**Collection Folders** This is where you choose the folders you want Amarok to scan for music. Simply check the boxes next to the desired folders in the tree view of your filesystem. The Collection Folders section also has several check boxes to specify how the collection uses the selected folders.

Scan folders recursively: tells Amarok to scan the selected folders and all of their sub-folders.

Watch folders for changes: allows Amarok to watch the selected folders for filesystem changes (for example, added or deleted music files). An incremental scan is also performed to make the necessary changes to your collection.

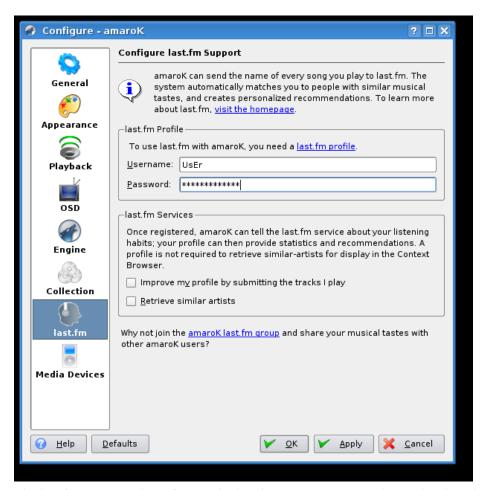
Import Playlists: allows Amarok to import any playlists (.pls and .m3u files) it finds while scanning for tracks to add to your collection. You will find these on the "Playlists" sidebar.

**Collection Database** The Collection Database section is used to select a database to use for the collection. Use the Engine: combo box to select from either Sqlite or MySql. If MySql is selected, additional configuration is required in the MySql Configuration section.

The MySql Configuration section is for configuring what database Amarok uses, and where it is located. First is the Hostname:, which is where the MySql database is located. Next is the Port:, which is the network port used when connecting to the database. The Name: option, is the actual database to connect to.

Use the Username: and Password: text input boxes to specify the username and password used for connecting to the MySql database.

## 3.7 Configure Last.fm



The last.fm settings tab configures the last.fm support in Amarok. Tracks played are submitted to the last.fm server, and if asked to, Amarok will request recommendations based on your currently playing track.

**last.fm Profile** This is where you fill in the Username and Password for your last.fm profile. If you do not have a profile you can register at the last.fm website.

**last.fm Services** Improve my profile by submitting the tracks I play: allows Amarok to submit your played tracks to your last.fm profile.

Retrieve similar artists: this will cause Amarok to request, from last.fm, a list of artists similar to the one you're listening to. These are also displayed in the Context Browser. Note: you do not need a last.fm profile to recieve similar artists - simply check this box.

## Chapter 4

# **Using Amarok**

Amarok is a versatile audio player that offers many different ways of controlling your music collection. Like any ordinary audio player, Amarok has a player window for controlling your most basic functions. Amarok also has a playlist that is second to none. The playlist window has multiple browsers for creating and browsing your entire audio collection.

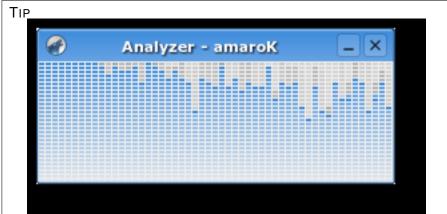
In this chapter we will go over how to use all the features of Amarok including creating a collection and a playlist.

## 4.1 The Player Window



The player window is your one click Amarok control center. At the top of the player there is a scrolling display to show the currently playing track or stream. Just below the scrolling display there is an area to display the current track's play time, bit rate, and sample rate. Clicking this area will change the track time from total played to total time remaining.

The player window also features a selection of audio analyzers also located under the scrolling display. You can cycle through the available analyzers by left clicking the analyzer area.



The Amarok player analyzers can be detached from the player window. By pressing **d** on your keyboard the active analyzer will open in an independent, re-sizeable window.

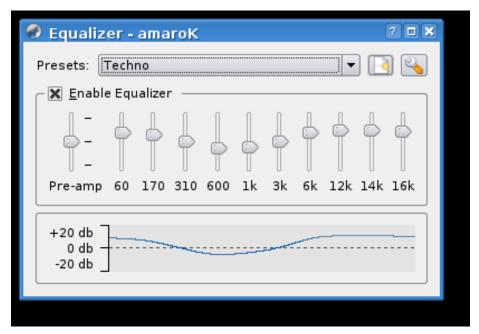
Also below the scrolling display are the PL and EQ buttons. The PL button is used to quickly enable or disable the playlist window, while the EQ button is used to enable and disable the equalizer if your engine is compatible.

The remainder of the player includes the playback buttons and the volume and track position sliders. Use the sliders to choose a track postion or volume level that suits your needs. Use the playback buttons to control the playback of the current track, or to skip either forward or back through your tracks.

## 4.2 The Equalizer Window

The built in equalizer is easy to use and works with all engines. There are 17 presets included, ranging from Classical to Techno, and you can easily create your own.

To access the equalizer choose  $Tools \rightarrow Equalizer$  from the main window or click the EQ button from the Player window. Once you check the Enable Equalizer check box in this window, the equalizer will be active.



You can use the dialog's drop down box to select one of the built in presets. You can also adjust individual sliders here. Adjusting a slider will automatically cause a switch to the Manual preset so feel free to experiment with them until you find a desirable combination. When you are ready to save, click the Add new preset icon to the right of the drop down box. If you change to another preset without saving your changes they will be lost. In addition to saving you can also click the Manage presets icon, to the right of the drop down box, to delete or rename presets.

## 4.3 The Playlist Window



The Amarok playlist is the most advanced playlist available to any audio player for KDE. The playlist offers many features that are not found in any other player. You should not be intimidated by the power of the playlist however, as it is still the easiest to use.

The playlist window can be divided into two main sections, on the left is the sidebar. The sidebar is where you will find some of the excellent features of the playlist like the Context Browser. On the right side of the window is the playlist itself. The playlist is simple to use yet powerful enough for even the most advanced users.

## 4.4 The Sidebar Browsers

Browsers in Amarok allow you to acess your music collection in several different ways. They are situated on the left side of the window, and each one is represented by a tab with its name written on it. Clicking on a tab brings the selected browser into view. If a browser is active clicking on its tab again will contract the browser. Only one browser is visible at any time, although you can drag tracks from one tab to another by hovering on the target tab for

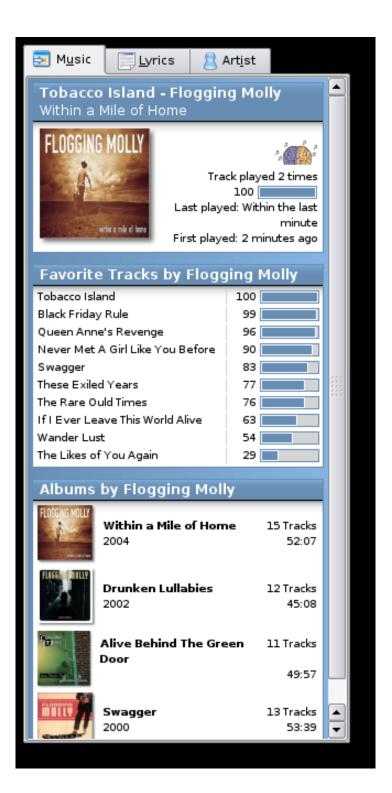
1 second until that tab becomes visible. You can also hide browsers by simply right-clicking on any tab and (un)selecting the desired browser(s) in the provided context menu.

#### 4.4.1 Context Browser

The Context Browser displays various information related to the currently playing track. Its appearance can be modified by using themes known as Context Browser Styles. It is organized into three tabs: 'Music', 'Lyrics', and 'Artist'. These tabs, whose function will be more fully explained below, supply information on different aspects the track currently being listened to.

### Note

Users of previous Amarok versions will notice that there is no longer a 'Home' tab. The information from this tab has been redistributed throughout the Amarok interface. Analogous information can be found mainly in the Statistics dialog, accessible through Tools  $\rightarrow$  Statistics.



#### 4.4.1.1 The Music Tab

The Music tab offers information about the currently playing track, and it's artist and album.

The first pane in this tab is for information about the track. The title of the pane lists the track name, artist name, and album. Inside the pane you will find it shows the album cover image for the track. Next to the image you will find a

MusicBrainz icon. for the track.

Click this icon to do a MusicBrainz look-up

Below the MusicBrainz icon there is more information about you current track. Here you will find the total number of times the track has been played, the track's current core, and when the track was first and last played.

#### TIP

To display album cover images in the Context Browser you must have the album cover image in the same directory as the track you are listening to. Supported file formats are .jpg, .jpeg, .gif, and .png. The images can be named anything, but images with the word 'front' in the filename will be used with preference. The Context Browser will also use cover images saved from the album cover downloader, or images embedded in ID3v2 tags.

The next pane, Suggested Songs, lists multiple tracks for suggested listening. Click on any of the listed tracks to begin playback of the track.

Below Suggested Songs is the Favorite Tracks By Artist. This pane lists the five highest rated tracks by the current track's artist.

#### TIP

You can adjust the amount of information shown in the Music tab by right-clicking anywhere on Music tab and toggling items on the context menu.

The last pane, Albums By Artists, lists all of the albums by the current track's artists that are in your collection. Clicking on any of the albums in this pane will expand the album to show the album's content.

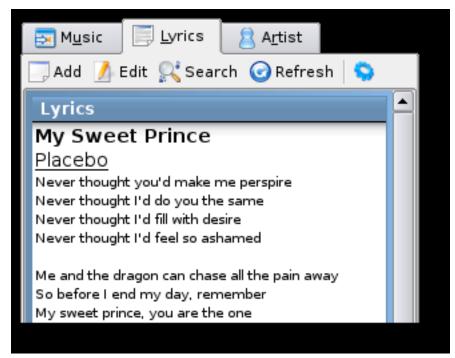
#### TIP

You can click on tracks in any of the panes to begin playback of the track. You can also right click albums and tracks for a pop-up menu to choose several ways to play or enqueue the track or album.

#### 4.4.1.2 The Lyrics Tab

Lyrics tabs fetches lyrics for the currently played song from one of the supported websites. This feature is flexible, and it's possible to write scripts to

fetch lyrics from different sites. See Chapter on Script-Writing. When you click on the Lyrics tab, Amarok attempts to fetch lyrics for the current track. If there is no lyrics script running you will be given the opportunity to select one.



You can perform various actions on the lyrics tab, using its toolbar buttons.

The Add button opens (in an external browser) the 'Add Lyrics' page on the lyrics website, depending on which script you run.

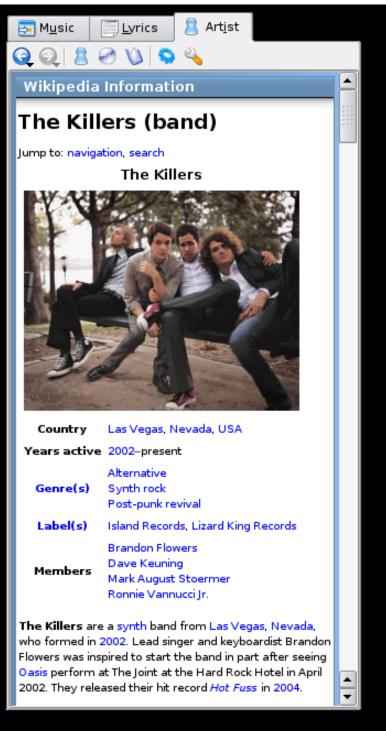
The Edit button allows you to edit lyrics for the current track. They are then stored in Amarok's collection database. This does not require a lyrics script to be active.

The Search button launches a google.com search (in an external browser) for the lyrics of the current track.

The Refresh button clears cached lyrics for current track, and searches again.

Open in external browser displays the current track's lyrics in your external browser.

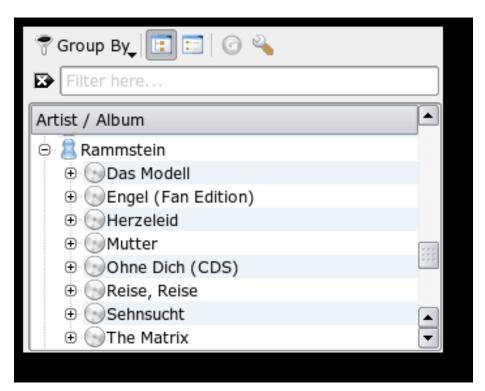
### 4.4.1.3 The Artist Tab



The Artist tab shows Wikipedia article about currently played artist. Toolbar contains:

- Navigational buttons for moving forward or backward
- Page buttons for jumping to artist's, album's or track's Wikipedia page,
- A button for opening current page in external browser
- A configuration button for setting the Wikipedia locale

#### 4.4.2 Collection Browser



The Collection browser is the heart of Amarok. The entire collection is viewable here and sorted using various groupings. Within each grouping, everything is always alphabetical, symbols and numbers first, and case insensitive. In every grouping method, tracks that have unknown artists and/or albums are always grouped at the start of your collection, under 'Unknown'. Although track numbers are not shown, tracks are listed in their album order. Clicking the header of the collection list reverses the sort order. Left-clicking on the expand icon to the left of any entry in your collection will expand that entry.

The 'Group By' pull-down menu allows you to group your collection in several ways:

- Group By → Artist Top level sort only, every track is grouped under its artist, with no consideration given to albums or genres.
- Group By → Artist/Album Tracks are sorted into artists, and then beneath
  this, sorted by album. If you want to see compilation or soundtrack albums,
  this is the best way to view your collection these albums are grouped together at the very begin of your list, under 'Various Artists'.
- Group By → Artist/Year-Album Sorts by artist, with albums in descending order of year (most recent first). If there is no 'Year' tag set for a track, the default '0 - album name'.
- Group By → Album Every album in your collection is displayed alphabetically based on the album name, regardless of artist.
- Group By → Genre/Artist Tracks are grouped according to their genre tag, then by artist.
- Group By → Genre/Artist/Album Same as above, only with tracks sorted by album, below each artist.

The remaining items on the pulldown menu allow you to customise the grouping with any combination of the above.

The next two icons on the toolbar change the way your collection is viewed. The first, Tree View, is the default view, and the one you'll probably see the most. The next button enables Flat View, which at first appears empty. Typing search terms in the text entry box immediately below the toolbar will begin to populate your collection, which can be sorted in a variety of ways, by left-clicking on the column headers. right-clicking on the column headers will pop up a context menu allowing you to change the columns shown.

The last icon in the toolbar lets you change your collection setup. Note that if you change any folders, Amarok will automatically rescan your collection this may take quite some time if you have many tracks.

Immediately below the toolbar is a search filter, which behaves the same in both Flat and Tree views. See the Playlist section of the handbook for more details on searching techniques.

Below the Search Filter, another pull-down menu lets you see the most recently added tracks to your collection. Several time periods are available, ranging from the last 24 hours, to 1 year, or your entire collection.

### 4.4.2.1 The Collection Browser right mouse button Options

The following options are accessible by clicking with the right mouse button on entries in the collection browser.

Load - Clears the current playlist and adds selected track(s) as first track(s), in sort order.

Append to Playlist - Adds selected track(s) to end of current playlist. Double clicking on a single track in the collection also achieves the same result.

Queue Tracks - Adds the selected track(s) to the queue as the next to be played.

Save as Playlist - Save the selected tracks as a playlist. You'll be prompted for a name to save as.

Add to Media Device Transfer Queue - Adds track(s) to a queue, ready to be transferred to a media device, when such a device is attached. See Media Device Browser section for more detail.

Burn All Tracks By This Artist/Burn To CD - Sends track(s) to K3b for burning as either a data or Audio CD. If K3b is not installed, this option is not selectable.

Fetch Cover Image - Searches amazon.com for a cover image for this album.

Edit Information for (n) Tracks - Opens the Track Information dialog and allows you to change tags for one or more tracks.

Manage Files

- Organize (n) Files Opens Organize Collection Files dialog.
- Delete (n) Files Pops up a confirmation dialog asking whether you want to permanently delete the selected track(s) from your computer.

Mark As Compilation - Sets the selected album as a compilation album, to be listed under 'Various Artists'

Unmark As Compilation - Changes an album marked as a compilation to a normal album, and moves the listing from 'Various Artists', to back under the artists listed.

### 4.4.3 Playlist Browser



The Playlist Browser is used for easy handling of your multiple playlists. The Playlist Browser also features built in smart playlists making it the most clever playlist browser around.

The Playlists Browser is divided into two sections, Playlists and Smart Playlists. The Playlists sections is for your own custom playlists. You can view the contents of your playlists in a list view by clicking the '+' symbol found next to each of the listed playlists. When you view a playlist in the list view new items can be added to the playlist by dragging and dropping them into the view. When you have found a playlist that you would like to load, you can double

click the playlist, or press the **Space Bar** to have Amarok load it. The other Playlist Browser keyboard shortcuts can be found in the Keyboard Shortcuts section.

### TIP

When you save a new playlist from the Playlist Window it is automatically added to the Playlist section.

The bottom section of the Playlist Browser is the Smart Playlists. The Smart Playlists use Amarok's built in data base to compile some useful playlists on the fly. The Smart Playlists include the following:

- All Collection: a playlist with all the tracks that are in your configured collection.
- Favorite Tracks: multiple playlists of the fifteen highest rated tracks in a listview by artitst.
- Most Played: multiple playlists of the fifteen most played tracks in a listview by artitst.
- Newest Tracks: multiple playlists of the fifteen most recently added tracks in a listview by artitst.
- Last Played: a playlist of the fifteen most recently played tracks in your collection.
- Never Played: a playlist of the tracks in your collection which have never been played before.
- Genres: multiple playlists in a listview ordered by genre.
- User defined smart playlists are also possible. Clicking the Create Smart-Playlist button will open a dialog to configure a smart playlist to fit your criteria.

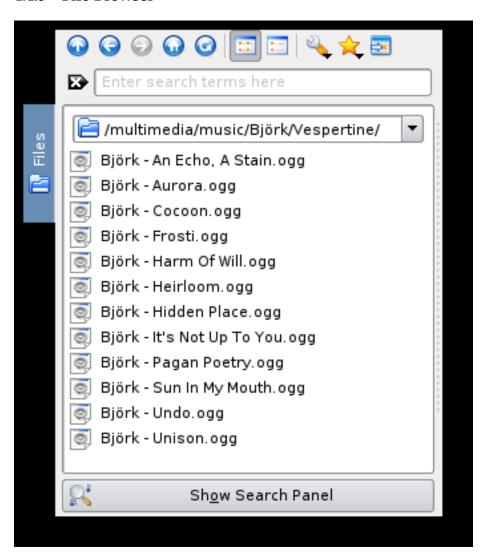
### 4.4.4 Media Device Browser



The Media Device panel is used for connecting your iPod, to Amarok. To use your iPod with the Media Device browser you must have your iPod mounted at /mnt/ipod before starting Amarok. Once you have started Amarok you will find the tracks on your iPod listed by artist in a listview at the top of the browser.

To add tracks to your iPod, drag the tracks you want to add from the playlist and drop them on the Artist listview. After you are done adding tracks to the list click the Transfer button to upload them to your iPod. After the transfer has completed, close Amarok and unmount your iPod.

#### 4.4.5 File Browser



The File Browser panel is like a mini konqueror embedded into the playlist. You can use the File Browser panel to browse your entire filesystem for audio files to add to the playlist. At the top of the File Browser you will find a toolbar with navigation buttons for moving Up, Back, and Forward through your filesystem. The tool bar also offers a Home, Reload, Short view and Detailed view buttons, it also features a Bookmarks button for creating bookmarks of your favorite filesystem areas.

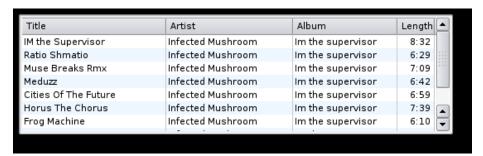
Below the toolbar is a handy search bar for searching by file name. You will find the search bar useful for directories with many files as it searches as you type leaving only the relevant file names in the view.

At the bottom of the File Browser is an address bar for accessing your music from any URL that you type. For instance typing tar:/home/mike/music.tar.gz into the address bar and pressing **Enter** on your keyboard will allow you to access the files inside the music tar ball. Now you can drag the audio from the tar ball and drop it into the playlist.

#### TIP

When playlist grows larger than one screenful, it becomes hard to append files by simply dropping them. Holding **Shift** key on keyboard while dropping may help in this case: the files will be appended at the end of playlist rather than inserted at current drop position.

### 4.5 The Playlist



The Playlist holds all the tracks you have en-queued for playing. You can change the sequence by dragging items around with the mouse, and dropping them in the desired position. Above the Playlist you see a Text Box, where you can enter a filter string. As soon as you enter a letter there, the Playlist will be redisplayed, showing only entries containing the entered characters. To stop the filtering, simply press **Backspace**, until the filter is empty.

#### TIP

Advanced, Google-esque syntax is also available.

By default, when you enter terms separated by spaces, it will search for items containing all of them. For example: one two three, will search for anything that contains one, two, and three.

However, you can put OR between terms to search for items that contain either, like this: one OR two OR three. That way, it will search for items that contain either one, or two, or three (or a combination of them).

You can also use quotes to search for terms with spaces in them: "Mike Oldfield". That will search for items that contain Mike Oldfield, but not, for example, ones that contain Mike J. Oldfield.

By default, it searches in all the columns of the playlist that are currently visible. However, you can use column:term to specify the column to search in: title:amarok (this can also be a column that isn't visible). This way, it will only search for items that have the word amarok in the title, and not, for example, in the album.

When specifying a specific column to search in, you can also search for items less than or greater than a term, for example: score:>50, which will search for items with a score greater than 50.

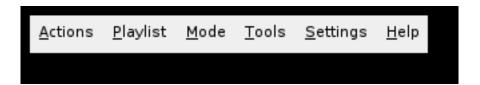
To specify a term you don't want the items to match, you can put a minus (-) sign before them: -thing, to search for anything that doesn't contain thing.

You can combine the above at will, for example: "Mike Oldfield" OR score:>50 - comment:bad. That will search for anything that either contains Mike Oldfield or has a score greater than 50, but excludes items where the comment contains "bad".



You can select items to be played in a specific order by holding **Control** and clicking the right mouse button on items in the order in which you wish them to be played. The items will be tagged with a number showing the order in which you selected them.

### 4.6 The Playlist Menubar



### 4.6.1 The Actions Menu

- **Actions** → **Play Media...** Opens a dialog for entering an URL.
- **Actions** → **Play Audio CD** Allows you to view and play an Audio CD using the audiocd:/ protocol.
- **Actions** → **Previous Track (Win-Z)** Move to the previous track in the playlist.
- **Actions** → **Pause** Pauses the playback of the current track.
- **Actions** → **Stop (Win-Z)** Stops playback.
- **Actions** → **Next Track (Win-Z)** Move to the next track in the playlist.
- $Actions \rightarrow Quit (Ctrl-Q)$  Quits Amarok.

### 4.6.2 The Playlist Menu

- $\textbf{Playlist} \rightarrow \textbf{Add Media... (Ctrl-O)} \ \ Opens \ a \ dialog \ to \ add \ media \ to \ your \ current \\ playlist.$
- **Playlist** → **Save Playlist As... (Ctrl-S)** Opens a dialog to save your current playlist.
- **Playlist** → **Undo (Ctrl-Z)** Undo the last change to the playlist.
- **Playlist**  $\rightarrow$  **Redo (Ctrl-Shift-S)** Reverts changes made by Undo.
- **Playlist** → **Clear** Clears the current playlist.
- **Playlist** → **Shuffle (Ctrl-H)** Shuffles the ordering of the current playlist.
- **Playlist**  $\rightarrow$  **Goto Current Track (Ctrl-Enter)** Moves the playlist to the currently playing track.
- Playlist  $\rightarrow$  Queue Selected Tracks (Ctrl-D) Queues all selected tracks in the playlist.
- Playlist → Remove Duplicates & Dead Entries Remove all duplicate or dead entries in the current playlist.
- **Playlist** → **Select All (Ctrl-A)** Selects all the tracks in the current playlist.

#### 4.6.3 The Tools Menu

**Tools** → **Cover Manager** Opens the Cover Manager.

**Tools** → **Queue Manager** Opens the Queue Manager.

**Tools** → **First-Run Wizard** Opens the First-Run wizard.

**Tools** → **Visualizations** Opens the Visualizations dialog.

**Tools** → **Equalizer** Opens the Equalizer Window.

**Tools** → **Scripts** Opens the Script Manager.

**Tools** → **Rescan Collection** Starts a manual scan of your collection folders.

### 4.6.4 The Settings Menu

**Settings** → **Hide Menubar (Ctrl-M)** Hide the Playlist Window Menubar.

**Settings** → **Hide Toolbar** Hide the Playlist Window Toolbar.

**Settings** → **Hide Player Window** Hide the Player Window.

**Settings** → **Repeat Track** Repeat playback of the current track.

**Settings** → **Repeat Playlist** Repeat playback of the current playlist.

**Settings**  $\rightarrow$  **Random Mode** Randomizes the order of playback of the tracks in the playlist.

**Settings** → **Dynamic Mode** Starts the dynamic playlist mode.

**Settings**  $\rightarrow$  **Configure Global Shortcuts...** Opens the global shortcut configuration dialog..

**Settings**  $\rightarrow$  **Configure Shortcuts...** Opens the Amarok shortcut configuration dialog..

**Settings**  $\rightarrow$  **Configure Toolbars...** Opens the Amarok toolbar configuration dialog..

**Settings** → **Configure Amarok...** Opens the Amarok configuration dialog...

### 4.6.5 The Help Menu

Help → Amarok Handbook (F1) Opens this documentation.

**Help** → **What's This (Shift-F1)** Activates the What's This mouse cursor.

**Help** → **Report Bug...** Starts the bug reporting tool.

**Help** → **about Amarok** Opens the about Amarok dialog.

**Help**  $\rightarrow$  **about KDE** Opens the about KDE dialog.

### 4.7 The Playlist Toolbar



The Playlist Window Toolbar is found near the bottom of the Playlist Window. The Toolbar contains buttons for many of the Playlist actions. On the right side of the Toolbar you can find the Add Media button, which opens a file dialog to add your media files to the playlist. Following the Add Media button are the Save Playlist, Clear Playlist, and Refresh Playlist buttons. You can use these buttons for handling the current Playlist.

The next set of buttons are the Undo, and Redo buttons. You can use these buttons to Undo or Redo any changes made to the playlist.

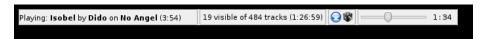
In the center of the Toolbar you can find a unique, re-sizeable analyzer. You can adjust the refresh rate for the analyzer by using the right mouse button menu, and selecting your desired frame rate.

The last button in the Toolbar is the Menu button. The Menu button opens the same menu as the Player Window right mouse button menu. You can use this menu for accessing the Amarok configuration options.

#### TIP

There are many other buttons available for the Toolbar including player control buttons and a volume slider. You can configure what buttons are in the Toolbar by clicking the Menu button and selecting Configure Toolbars...

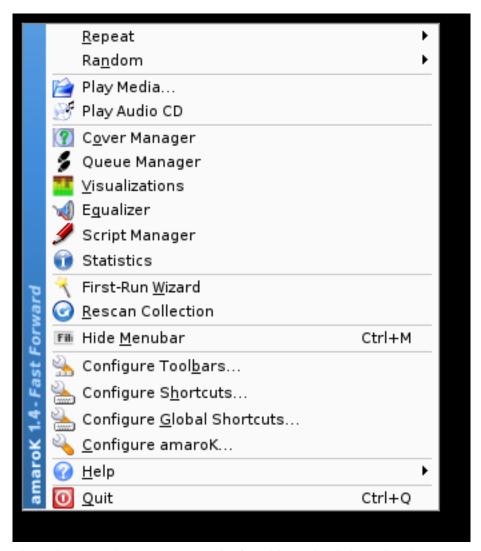
### 4.8 The Playlist Status Bar



The Status Bar provides quick access to some useful information about the playlist. The Status Bar displays the current track's title, the number of tracks in the playlist along with the total playlist time, Random and Repeat status, a mini track position slider, and the current track's play time. You can change the Random and Repeat status by double clicking there respective areas in the status bar.

You can also choose to not have the Status Bar displayed using the Show statusbar option in the Configure General Options Dialog.

### 4.9 The Right Mouse Button Menu



The right mouse button menu can be found by right clicking the player window, it can also be found by clicking the Menu button in the playlist window. The right mouse button menu is used for access to all of Amarok's options.

Repeat Track This option when enabled repeats playback of the current track.

**Repeat Playlist** This option when enabled repeats playback of the entire playlist.

**Random Mode** This option when enabled randomizes the playback of the tracks in your playlist.

**Append Suggestions** Appends the suggested songs in the Context Browser to the current playlist.

Cover manager Opens the Cover Manager.

**First-run Wizard** Clicking this option starts the first-run wizard for the initial configuration of Amarok.

**Visualizations...** Clicking this option opens the Visualizations Window for choosing what visualizations to use with Amarok.

**Equalizer** Opens the Equalizer Window.

Script Manager Opens the Script Manager dialog.

**Configure Toolbars...** Clicking this option opens a dialog to configure the Playlist Toolbar.

**Configure Shortcuts...** Clicking this option opens a dialog to configure the Amarok Shortcuts.

**Configure Global Shortcuts...** Clicking this option opens a dialog to configure the global Amarok Shortcuts.

**Configure Global Amarok...** Clicking this options opens the Amarok Configuration Dialog.

**Help** This entry provides a sub-menu providing links to this document and other Amarok information.

**Quit** This entry when clicked will quit Amarok.

### 4.10 Album Cover Manager



The Album Cover Manager is a useful tool for managing your album covers. You can start the Cover Manager by selecting Actions  $\rightarrow$  Cover Manager in the Collection Browser.

The cover manager provides a listview of all the albums in your collection. You can view all of your album covers for an artist by clicking on the artist in the list view.

The cover manager provides a search bar for searching in your album covers. The cover manager will search your albums for the search criteria you type in the search bar.

The View menu allows you to choose what is displayed in the cover manager. You can choose from:

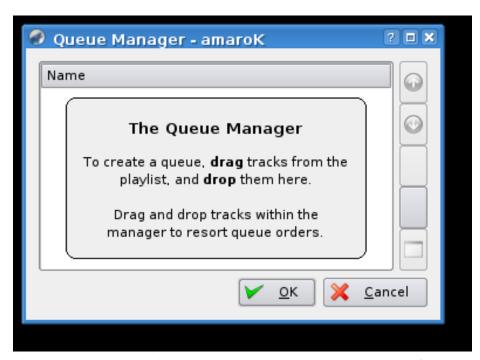
All albums which displays all your albums in your collection.

Albums with cover which displays only the albums that have cover images.

Albums without cover which displays only the albums that do not have cover images.

The Fetch Missing Covers button is used to download cover images for your albums that do not already have cover images available.

### 4.11 The Queue Manager



The Queue Manager makes it's grand entrance in Amarok 1.3. This feature is designed to enable users to have even more control over their playlists. After

queuing, a track a number will be shown beside it in the Queue Manager. This number indicates the order in which Amarok will play the track: one will be first, two will be second, and so on.

You can use the Queue Manager by opening it from Tools → Queue Manager, selecting the track, and then pressing the + icon in the Queue Manager. You can also just drag tracks to the Queue Manager to create a queue. Alternatively, the playlist's context menu may also be used and the Queue Manager can then be opened in order to modify the order.

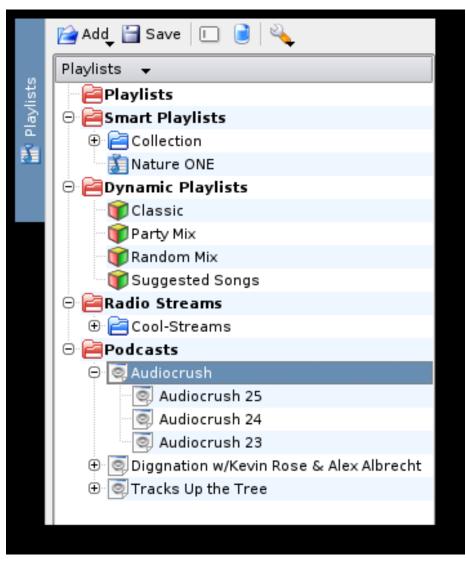
### 4.12 Dynamic Playlists

### 4.12.1 What Are They?

Dynamic Playlists are self-generating playlists, created according to defined rules, which are used to keep the current playlist to a manageable size. Whilst Amarok is fairly light on resources while running, loading a large number of tracks into a playlist at once increases RAM usage, possibly impacting on system performance, which is avoided completely by using Dynamic Playlists. Also known as Party Mode, they are also a great way to keep the music playing all night with no interaction.

### 4.12.2 Where Are They?

You can find Dynamic Playlists in the Playlists Sidebar.



There are three types of Dynamic Playlists, referred to as Dynamic Modes, two of which are predefined (more details on configuring this later).

**Random Mix** Initialises a playlist with random tracks from you're entire collection, and keeps adding random tracks.

**Suggested Songs** Adds tracks based on last.fm (formerly audioscrobbler) suggestions. Requires some tracks already in the playlist. Note you do not need a last.fm profile for this to work.

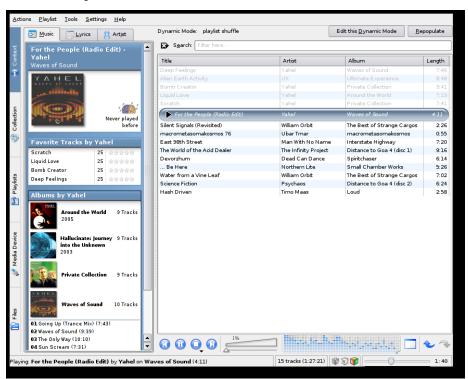
**Playlist Shuffle (user-created)** Adds random tracks from specified Smart Playlists, either built-in or user defined.

#### 4.12.3 How Do I Use Them?

Simply double-click your desired playlist, drag it to the playlist window, or right-click and select Load. This will replace your current playlist, so you may want to save that first if it's important to you.

Both Random Mix and Playlist Shuffle will populate your playlist and allow you to start playing immediately. Suggested Songs will start with an empty playlist, requiring you to add at least one song from your collection manually. The suggestions are added on a track change, so your playlist will not be populated until the end of the first song.

If you wish to retain your current playlist, you can enable the last type of Dynamic Mode used by selecting Settings → Dynamic Mode. This will use your existing playlist as a starting point. You can disable Dynamic Mode via the same menu option.



The Repopulate button will clear your playlist and re-add tracks according to the Dynamic Mode you are using, and the Edit this Dynamic Mode button will pop up the Dynamic Mode Settings dialog.

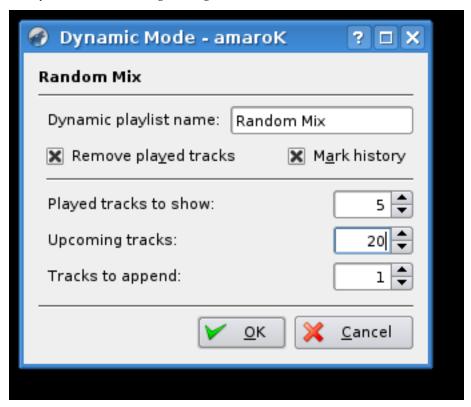
#### NOTE

These buttons will not appear if you have Dynamic Mode disabled.

### 4.13 Configuring Dynamic Playlists

### 4.13.1 Changing the Behaviour of a Dynamic Playlist

Right-clicking on a Dynamic Playlist will allow you to select Edit, which opens the Dynamic Mode Settings dialog box.



**Dynamic Playlist Name** Rename to anything you like, if you so desire. Playlist names should be unique, to avoid confusion.

**Remove played tracks** If you uncheck this, your playlists will continually grow, the Upcoming Tracks setting is overridden, and you will not get repeats in your playlist. If the setting is checked, played tracks are removed from the start of the list, according to the Played tracks to show setting below.

Mark history Greys out tracks that have been played.

**Played tracks to show** Played tracks to show - number of played tracks to leave showing at the start of the playlist. Useful for seeing what has been played recently.

**Upcoming tracks** This is the setting that restricts the size of your playlist.

**Tracks to append** The number of tracks that will be added to your playlist after each song is played. Note that if you set this greater than 1, your playlist will grow rapidly, as only one track can be played then removed at a time.

You can also access this dialog via the Edit this Dynamic Mode button at the top right of your playlist window.



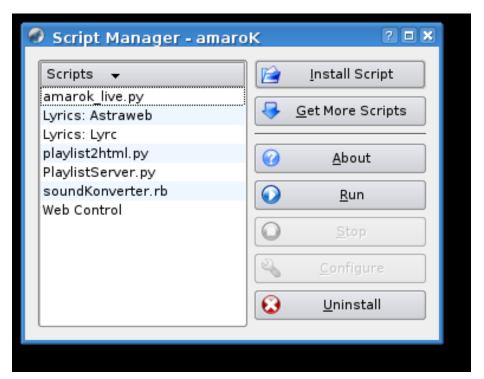
### 4.13.2 Adding a Custom Dynamic Playlist

Right-click on Dynamic Playlists and select New Dynamic Playlist.



The settings on the right are as described in the previous section. In the panel on the left, you can select from any of the existing playlists and smart playlists on your system. If you select multiple playlists, Amarok will add random tracks from each of these.

### 4.14 The Script Manager



The script interface provides a simple way to extend the functionality of Amarok. To run an Amarok script, start the Script Manager by selecting  $\operatorname{Tools} \to \operatorname{Script}$  Manager in the Amarok Menubar. In the Script Manager dialog you will find a listview of your installed scripts, select a script from the listview and click the Run button to launch the script. The Amarok script will run until it has finished, or is manually stopped by selecting the script in the Script Manager and clicking the Stop button.

### TIP

Some scripts provide special configuration options. To access these options first run the script and then click the Configure button to access the script's configuration dialog.

To install new Amarok scripts click the Install Script button in the Script Manager dialog. A select file dialog will open allowing you to select an Amarok script package. After selecting a package to install a new entry for the script will appear in the listview. You can also install new scripts by clicking the Get More Scripts button, which opens a Dialog for downloading and installing scripts automatically from the internet.

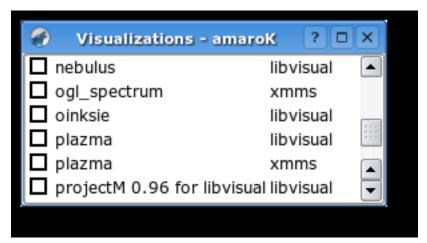
You may also find that there are scripts that you no longer use. To uninstall

a script select the script in the Script Manager listview and click the Uninstall button.

### Note

If you are looking for information on writing an Amarok script, please see the Script Writing section of this document.

### 4.15 The Visualizations



The Visualizations Window is used to enable your available visualizations with Amarok. A list of your available visualizations will be provided in the window. To enable a visualization check the provided checkbox for the specific visualization.

# **Chapter 5**

# **Advanced Amarok features**

### 5.1 Keyboard Shortcuts

Amarok uses keyboard shortcuts like most other applications, below is a listing of those shortcuts and there respective actions. The global shortcuts can be configured by right clicking the Player window and selecting Configure Global Shortcuts... The Amarok shortcuts can be configured by right clicking the Player window and selecting Configure Shortcuts...

### TIP

You can assign you multimedia keys to work as Amarok shortcuts making your keyboard an Amarok control center.

### The global shortcuts are:

Key Combination	Action
Win-X	Play
Win-C	Pause
Win-V	Stop
Win-B	Next Track
Win-Z	Previous Track
Win-KP_Add	Increase Volume
Win-KP_Subtract	Decrease Volume
Win-Shift-KP_Add	Seek Forward
Win-Shift-KP_Subtract	Seek Backward
Win-A	Add Media
Win-P	Toggle Playlist
Win-O	Show OSD
Win-M	Mute Volume

#### The Amarok shortcuts are:

Key Combination	Action
Ctrl-C	Сору
Ctrl-KP_Enter	Goto Current
Ctrl-D	Queue Selected Tracks
Ctrl-Q	Quit
Ctrl-Shift-Z	Redo
Ctrl-S	Save Playlist
Ctrl-A	Select All
Ctrl-M	Show Menubar
Ctrl-H	Shuffle
Ctrl-Z	Undo

The Playlist Browser shortcuts are:

Key Combination	Action
Space	Load Playlist
F2	Rename Playlist
Backspace	Remove Playlist

### 5.2 The DCOP Interface

The Amarok DCOP interface provides you with an easy way to control Amarok with your own custom scripts.

The DCOP interface for Amarok has many generic calls that may be found in other KDE applications. This section is divided into six tables and is intended to describe the DCOP calls of the collection, contextbrowser, player, playlist, playlistbrowser and scripts. An example of the 'pause' dcop call would look like:

%dcop amarok player pause

### 5.2.1 dcop amarok collection

DCOP Call	Action
int totalAlbums()	Returns the total of albums in the
int total houris()	collection.
int totalArtists()	Returns the total of artists in the
Int total utists()	collection.
int totalCompilations()	Returns the total of compilations
int totalcompliations()	in the collection.
int totalGenres()	Returns the total of genres in the
int totalGenres()	collection.
int totalTracks()	Returns the total of tracks in the
Int totalTracks()	collection.
QString query( QString sql)	Queries the database via SQL.
QStringList similarArtists( int	Return similar artists of the
artists)	current tracks, limit to int artists.
void migrateFile( QString oldURL,	Move a file in the collection,
QString newURL)	keeping stats intact.
void scanCollection()	Scan the collection.
void scanCollectionChanges()	Scan the collection for changes
	only.

## 5.2.2 dcop amarok contextbrowser

DCOP Call	Action
void showCurrentTrack()	Show the current track in the
	context browser.
void showLyrics()	Show the lyrics tab in the context
	browser.
void showWiki()	Show the wikipedia tab in the
	context browser.

## 5.2.3 dcop amarok player

DCOP Call	Action
bool dynamicModeStatus()	Return dynamic mode status.
bool equalizerEnabled()	Return the equalizer status.
bool isPlaying()	Return true if something is playing
	now.
bool randomModeStatus()	Return random mode status.

bool repeatPlaylistStatus()	Return repeat playlist status.
bool repeatTrackStatus()	Return repeat track status.
int getVolume()	Return volume in range 0-100%.
	Return the sample rate of the
int sampleRate()	currently playing track.
	Return the score of the currently
int score()	playing track.
	Return playback status: 0 -
int status()	1 2
	stopped, 1 - paused, 2 - playing.
<pre>int trackCurrentTime()</pre>	Return current play position in
· ·	seconds.
int trackPlayCounter()	Return play counter for current
•	song.
int trackTotalTime()	Return track length in seconds.
OString album()	Return the album of the currently
QString album()	playing track.
00.1	Return the artist of the currently
QString artist()	playing track.
	Return the bitrate of the currently
QString bitrate()	playing track (XX kbps).
	Return the comment of the
QString comment()	
- 0	currently playing track.
QString coverImage()	Return the encoded URL of the
~ · · · · · · · · · · · · · · · · · · ·	current track's cover image
	Return the position of the
QString currentTime()	currently playing track ([h:]mm:ss
	format).
OCtains and dall IDI ()	Return the encoded URL of the
QString encodedURL()	currently playing track.
QString engine()	Return the current sound engine.
	Return the genre of the currently
QString genre()	playing track.
QString lyrics()	Return the lyrics of the currently
	playing track.
QString lyricsByPath( QString	Return the lyrics of a track by path
path)	, , ,
QString nowPlaying()	The title of now playing media.
OString nath()	Return the unencoded path of the
QString path()	currently playing track.
QString setContextStyle( QString )	Set the CSS style for the context
	browser.
	Return the title of the currently
QString title()	1
	playing track.
QString totalTime()	Return the total length of the
	currently playing track ([h:]mm:ss
	format).

QString track()	Return the track number.
QString type()	Return the file type.
QString year()	Return the year of the currently
	playing track.
void configEqualizer()	Toggle equalizer config dialog.
void enableDynamicMode(bool	Control Dominio Mada and off
enable)	Switch Dynamic Mode on or off.
void enableOSD(bool enable)	Switch OSD display on or off.
void enableRandomMode(bool	
enable)	Switch Random Mode on or off.
void enableRepeatPlaylist(bool	Constrain Demonstration and Co
enable)	Switch Repeat Playlist on or off.
void enableRepeatTrack(bool	Countries Demonstrate de la company off
enable)	Switch Repeat Track on or off.
,	Sets the command used for
void mediaDeviceMount()	mounting media device.
	Sets the comment used for
void mediaDeviceUmount()	umounting media device.
void mute()	Toggle mute.
	Equivalent to pressing "Next"
void next()	button.
	Equivalent to pressing "Pause"
void pause()	button.
	Equivalent to pressing "Play"
void play()	button.
	Toggle play/pause state (good for
void playPause()	mm keyboard users)
	Equivalent to pressing "Prev"
void prev()	button.
void queueForTransfer( KURL url	Queue file for transfer to Media
)	Device.
void seek(int s)	Seek track to seconds position.
	Seek to a position relative to the
void seekRelative(int s)	current track position.
void setEqualizer(int, int, int, int,	1
int, int, int, int, int, int)	Set the equalizer bands
void setEqualizerEnabled( bool	
active)	Toggle equalizer.
void setEqualizerPreset( QString	
name)	Set the equalizer preset
void setLyricsByPath( QString url,	
QString lyrics)	Set the lyrics of a track by it's path.
	Set the score of the currently
void setScore( int score )	playing track.
	pmjnig titeti.

void setScoreByPath( QString url, int score )	Set the score of a track by it's path.
void setVolume(int volume)	Set volume in range 0-100%.
void showBrowser( QString	Shows browsers in the playlist
browser)	window
woid showOSD()	Show the OSD display on the
void showOSD()	screen.
void stop()	Equivalent to pressing "Stop"
	button.
void transferDeviceFiles()	Transfer files to media device.
void volumeDown()	Decrease volume by a reasonable
	step.
void volumeUp()	Increase volume by a reasonable
	step.

## 5.2.4 dcop amarok playlist

DCOP Call	Action
int getActiveIndex()	Return the index of the currently
	active track1 if none.
int getTotalTrackCount()	Return number of tracks in
int getrotarriackCount()	playlist. 0 if none.
QString saveCurrentPlaylist()	Saves the current playlist to
Quiling saveCurrenti laylist()	current.xml and returns its path.
void addMedia( KURL )	Add audio media specified by the
void addiviedia ( RORL )	url.
void addMediaList( KURL::List )	Add some audio media specified
void addiviediaList( KUKLList )	by the url.
void clearPlaylist()	Clears the playlist.
void playByIndoy(int)	Starts playing the track at the
void playByIndex(int)	specified index.
void playMedia( KURL )	Add audio media specified by the
void playiviedia (RORL)	url.
woid nanunMassaga( OString)	Shows a temporary popup
void popupMessage( QString)	message.
woid nomewoCunnentTreede()	Removes the current-track item
void removeCurrentTrack()	from the playlist.
void repopulate()	Repopulate the playlist with
void repopulate()	random tracks.
void saveM3u( QString path, bool	Savos the summent playlist as m?
relativePaths)	Saves the current playlist as m3u.
void setStopAfterCurrent( bool )	Enables/disables the "Stop After
	Current Track" feature.

void shortStatusMessage( QString)	Shows a temporary message on the statusbar.
void shufflePlaylist()	Shuffles the playlist.
void togglePlaylist()	Toggle the Playlist-window.

## 5.2.5 dcop amarok playlistbrowser

DCOP Call	Action
void addPodcast( QString )	Add a podcast entry to the playlist
	browser.
void scanPodcasts()	Scan all podcasts for updates.
void addPlaylist( QString )	Add a playlist to the playlist
	browser.

## 5.2.6 dcop amarok script

DCOP Call	Action
bool runScript( QString name)	Starts the script with the given
	name. Returns true on success.
bool stopScript( QString name)	Stops the script with the given
	name. Returns true on success.
QStringList listRunningScripts()	Returns a list of all currently
	running scripts.
void addCustomMenuItem(QString submenu, QString itemTitle)	Enables and sets custom menu item title.
void removeCustomMenuItem(QString submenu, QString itemTitle)	Removes the custom menu item.
QString readConfig( QString key)	Returns a AmarokConfig
	configuration entry value from the
	given key.

## 5.3 Command-line Options

Amarok supports the use of the standard Qt and kde command line options. Amarok also has it's own application specific options.

The Qt and kde options:

Option	Action
help	Show help about options.
help-qt	Show Qt specific options.
help-kde	Show KDE specific options.
help-all	Show all options.
author	Show author information.
-v,version	Show version information.
license	Show license information.

### The Amarok options:

### Note

The Amarok options are designed to be used while Amarok is running.

Option	Action
-r,previous	Skip to the previous track in the
	playlist.
-p,play	Start playing current playlist.
-s,stop	Stop playback.
pause	Pause playback.
-f,next	Skip to the next track in the
	playlist.
-a,append	Append Files/URLs into the
	playlist.
-e,enqueue	See append, available for
	backwards compatability.
queue	Queue Files/URLs after the
	currently playing track.
-m,toggle-playlist-window	Toggle the playlist window.
wizard	Launch the First-run wizard.
engine "name"	Start Amarok with the "name"
	engine.

### 5.4 Script Writing

Scripting allows you to extend Amarok easily without changing the main codebase. Scripts are similar to plugins, but instead of a dedicated plugin API they use Amarok's DCOP interface for communication. This makes it possible to write scripts in almost any programming language, like Ruby, Python or PHP. Not only can you create scripts in classic scripting languages, but also in compiled languages like C++ or plain C. Additionally, Amarok can notify the scripts on special events and make them react accordingly. This notification system will be explained later in this section.

### 5.4.1 Bindings

It is possible to write simple scripts that do not need user interaction, and it's also possible to make scripts with comfortable GUIs that act like little applications of their own. For GUI programming one of the many bindings which KDE provides can be used, for instance RubyQt, a Qt library binding for Ruby. However, it is worth noting that not every user has all available bindings installed. If you decide to use a binding, try to use one of the relatively wide spread ones (e.g. RubyQt or PyQt).

In order to provide some feedback when a script fails to run due to a missing dependency, please check in your script if the module you want to include really exists. If the dependency is missing, you should catch the error and show an information dialog using the "kdialog" command line tool, so that the user learns why the script fails to run.

This example shows how to catch a missing dependency in Ruby:

```
begin

require 'Korundum'

rescue LoadError

error = 'Korundum (KDE bindings for ruby) from 
kdebindings v3.4 is required for this script.'

'kdialog --sorry '#{error}'

exit

end
```

### 5.4.2 Getting Started: The Templates

Amarok provides template scripts for several languages in the scripts/templates/ directory. You can use these scripts as a basis for your own scripts, and extend them with the functionality you need. You'll notice that scripting is actually quite straightforward; For instance if you know to program a bit in Python, making your own script won't take you long.

### 5.4.3 Controlling Amarok With DCOP

Scripts can control Amarok by calling some of its DCOP functions. The easiest way to invoke a DCOP function is by using the "dcop" command line utility, which is part of every KDE distribution.

Here is an example for increasing the master volume:

```
dcop amarok player volumeUp
```

Most scripting languages allow to execute external programs, with a function like exec(). This way the "dcop" utility can be invoked easily. Here is a simple Python example:

```
import os
os.system("dcop amarok player volumeDown")
```

#### 5.4.4 Notifications

Amarok sends notifications to all running scripts by writing strings to their stdin channel. The script should therefore constantly monitor stdin, and react accordingly to each of the possible events. Scripts may also choose to ignore any event they don't have a use for.

The following notifications are sent by Amarok:

```
configure

Tells the script to show its configuration dialog. The script ↔

must handle the

storing and loading of configuration options by itself. When ↔

a script is

started, Amarok sets its working directory to the folder ↔

where all data
should be stored.
```

```
engineStateChange:empty|idle|paused|playing
Signals a change in the engine's state.
```

```
trackChange Signals the start of a new track. The script may then use \longleftrightarrow DCOP functions to query further information about the track, e.g. metadata and \longleftrightarrow the length.
```

```
volumeChangenewVolume Signals a change of the master volume level. The volume is an \hookleftarrow integer with a range of 0-100.
```

```
customMenuClicked:submenu itemTitle paths
Returns the paths to selected files in the playlist when the 
custom playlist
context menu item is clicked. The submenu and itemTitle are 
also returned for
identification purposes in case a script is listening for 
multiple notifications.

To insert an item into the context menu use the DCOP call
'dcop amarok script addCustomMenuItem( submenu itemTitle )'. 

To remove an
item from the context menu use the DCOP call
'dcop amarok script removeCustomMenuItem( submenu itemTitle ) 
'.
```

### 5.4.5 Script Termination

Before Amarok exits, or when the user stops a script with the Script Manager, Amarok sends the SIGTERM signal to the script. This signal can be caught in order to do cleanup work, like saving data or configuration settings.

### 5.4.6 Packaging

Amarok's Script Manager is able to install script packages that the user has downloaded from a web server. Packages are just normal tarballs (.tar), optionally compressed with bzip2 (.bz2). We strongly recommend using a filename like myscript.amarokscript.tar.bz2, so the user can easily identify the package as an Amarok script.

#### NOTE

Amarok 1.3 will only accept script packages with the amarokscript extension, so it is better to use it right from the start.

The tarball's content must be organized as follows:

```
myscript/
README
myscript.py (executable)
somemodule.py
foo.data
...
```

### 5.4.7 File permissions

The main script must have executable (+x) permissions set, while additional modules which the script loads should not be executable. To preserve the file permissions in the tarball, you should use tar with the -p flag:

```
tar -cf myscript.amarokscript.tar -p myscript
```

### NOTE

Amarok will not be able to install the script if the permissions are not correctly set.

### 5.4.8 Distributing

When the package is finished, you can upload it to www.kde-apps.org, and add the link to the Amarok Wiki Scripts Page. For the kde-apps entry you should use the Amarok Scripts category.

# Chapter 6

# **Questions and Answers**

### 6.1 What is Amarok?

1. What is Amarok?
Amarok is a music player for Unix systems (eg. Linux). More information can be found in a summary of its features and the screenshot gallery.

### 6.2 Installation

1. Can I use Amarok without KDE?

Amarok only requires KDElibs, none of the other KDE stuff. So you have to have KDElibs installed properly (including all the binaries that come with it, as Amarok needs some of these to find plugins and for the script plugins). We have written an entry for how to compile a minimal KDElibs, which you may find useful.For some features to work correctly, such as the on-screen display, require your window manager to support the relevant freedesktop.org standards. So GNOME will work well, but fluxbox will have some trouble. We are committed to supporting Amarok on all platforms. We use KDElibs and Qt because they provide an excellent development environment.

### 6.3 Troubleshooting

1. Amarok crashes during the Collection scan, always at the same point. What's happenning?

It's likely that one file in your Collection triggers a bug in the TagLib library, and makes Amarok crash. You can identify this file by looking at /.kde/share/apps/amarok/collection\_scan.log. You should report this

crash to the TagLib bug database on bugs.kde.org and attach the broken file. Afterward you can remove the file from your Collection and repeat the scanning.

- 2. *Amarok crashes when I play a certain track, everytime, what's wrong?*This usually means TagLib is crashing while reading that track's tags. Report the bug against TagLib at bugs.kde.org.
- 3. Amarok crashes often, what can I do?

Upgrade your ALSA libs and utils to the latest version, or use OSS, or OSS emulation. If you use MySQL as the database backend, try the SQLite one, it is slightly more mature (the Amarok code, not the db itself) Try a different audio-engine. Make sure that all the libraries that Amarok uses were compiled with the same GCC version as Amarok itself. The situation when Amarok is compiled using GCC 3.4.x and linked against taglib which was compiled using GCC 3.3.x can lead to crashes during tag editing. If you're using KDE with artsd, try disabling "auto suspend if idle after..." in the sound system settings or at least don't use a value of 1 second since that will interfere every time amarok switches songs. Otherwise, forward us the backtraces when the email pops-up (you'll see). If you get a crash often you will get it fixed for sure if you forward a really good backtrace to us. See the next sections for assistance there.

- 4. *How can I obtain a decent backtrace?* See the Debugging HowTo.
- 5. Amarok is not using the tags I know are in my files!

If Konqueror or other apps are displaying different Title, Artist, Album or Genre information than Amarok is picking up when it creates your collection, it may be reading the older ID3v1 format tags rather than the newer ID3v2 tags. This can be due to your Encodings setting: Go to Settings — Configure Amarok, and then find the Encodings section of the Settings panel. Uncheck all checkboxes to "Do not decode the following as latin1". Rescan your collection to pick up the ID3v2 tags.

6. Amarok is not displaying my utf-8 id3v2 tags properly!

This is because most applications put utf8 data into id3v2 tags but do not specify the encoding as unicode. This perl script will fix that.

#### NOTE

This script requires the perl module MP3::Mplib which can be installed by issuing this command **perl -MCPAN -e 'install MP3::Mplib'** 

7. Why do my statusbar icons always look active?

Amarok statusbar icons(Random/Repeat/Append) look constantly Active on KDE 3.4.0. This is a known bug in KDE 3.4.0. The icon effects are sometimes forgotten. Simple fix kcontrol Appearance  $\rightarrow$  Icons  $\rightarrow$  Advanced, set disabled state to "Gray" and "Semi-transparent". Note that sometimes you must click on the icon 3 times before it has an effect after making this change.

8. Why does Amarok complain about undefined symbols and then refuses to start? if you get this error: "amarokapp: symbol lookup error: amarokapp: undefined symbol: \_ZN11KSystemTray9setPixmapERK7QPixmap", then check that amarokapp uses the correct libqt (check with: ldd 'which amarokapp' | grep qt). To fix it, you might have to remove any conflicting libqt and/or edit /etc/ld.so.conf so it pick up the correct version first.

### 6.4 General Usage

1. Where can I get support for Amarok?

There are several options. Often times problems you have with the initial install of Amarok are best answered by experts of your particular Unix or Linux distribution. You may seek help from fellow users and developers at the Amarok forum and the IRC channel at irc.freenode.net channel #amarok.

#### NOTE

Bugzilla is not a place to seek support. Please do enter a bug if you are serious about helping fix a bug in Amarok itself.

2. When I start Amarok, I see an empty playlist. How do I actually get tracks in there?

Simple. Use the File Browser on the left side to navigate to the desired directory. Then drag the files into the Playlist part on the right.

- 3. Where is the "Home" tab?

  To avoid interface-clutter "Home" tab has been transformed into "Statistics" tool, available under Tools → Statistics.
- 4. *Is there a way to set up amount of information that "Context" borwser shows?* Yes, use the right mouse button menu anywhere on "Context" browser to modify it.

- 5. Why are the stars and numbers in the "Context" browser are out of sync?

  The meaning of those symbols has changed in Amarok 1.4 "Fast Forward": stars represents the user-defined rating, while numbers shows calculated score.
- 6. Clicking on stars in "Context" browser does not work! How do I rate a song?

  To rate a track you need a "Rating" column in playlist. Click with the right mouse button on playlist title, and choose Add Column → Rating. Click anywhere inside "Rating" column to set up rating for a track. You can also use shortcuts [Win]+[1-5] to quickly rate a song, with Amarok running in the background.
- 7. How do I remove tracks from the Playlist?

Select the files you want to remove, and press Del key on your keyboard. Or right-click the selection and choose Remove Selected from pop up menu.

8. How can I load a playlist?

Just drag and drop the playlist file into the Playlist, like you would do with any other file. It's that simple!

9. How can I save the current playlist?

The Save playlist button is next to Add Media button in the Playlist Toolbar. Just click it!

10. There are no visualizations in the visualizations dialog.

You probably don't have xmms-config installed, reconfigure and build after installing the appropriate xmms-devel package. You also may want to install the latest version of libvisual, which has some ultra fancy visualizations.

11. Where's the equalizer?

The Equalizer Window can be found in the right mouse button menu. You can also find it in the Menubar by selecting Tools  $\rightarrow$  Equalizer.

# 6.5 Playback

1. What media types does Amarok support?

None. Yes, that's right! None! We have a backend independent approach, so the question you should be asking is "What media types does GStreamer/xine/aRts/NMM/MAS/KDEmm support?" So as you can guess we pretty much support absolutely every audio format you can think of. GStreamer can even decode text and PNG! For more information, have a look at Audio Engine Comparison.

2. Why can't Amarok play MP3s?

It can! Chances are you're using Fedora/RedHat linux, they don't ship with MP3 decoders by default (due to patenting issues). Solution: Alt-F2, gg:redhat mp3 kde, ENTER

3. Amarok won't play MP3's under SUSE Linux 9.3, what could I do?

Open the "YaST Online Update" and install the 'Multimedia Option Pack 1' patch. Voila, Amarok plays MP3's.

4. With GStreamer-engine I'm getting 100% CPU usage while playing. How can I fix it?

When using GStreamer-engine with alsasink, Amarok requires the device to provide a mixer. Mixing allows multiple applications to access the device at the same time, and output sound simultaneously. This can either be achieved by using a soundcard with hardware-mixing (e.g. SBLive), or by using the "dmix" plugin for alsa, which provides software-mixing. See Setting up Dmix for ALSA. After installation you need to specify "dmix" as the sound device in the engine settings dialog.

5. I can't get any media to play in Amarok, why not?

You need to test the sound frameworks at the commandline: artsplay foobar.mp3 gst-launch filesrc location=/home/foo/bar.mp3! spider! audioscale! audioconvert! alsasink xine-check The output from these commands should help you identify the problems you are having and how to fix them. Please note you may need to use a different sink to test GStreamer (eg. osssink).

6. Can Amarok output directly to OSS/ALSA?

We already do! Don't forget that the media must be decoded first! You can't just pipe an MP3 to ALSA, all you will get is white-noise. GStreamer is the best choice for most people who want a low-overhead decoding solution, it reads the file, decodes it and pipes the PCM data to ALSA. Exactly like XMMS.

7. But! XMMS can output directly to ALSA!

But it decodes it first! GStreamer can output directly to ALSA too! So can xine!

8. The sound stutters, is there anything I can do to improve it?

You can either use the GStreamer engine (it's great!), or tweak aRts. Open Control Center Sound and Multimedia  $\rightarrow$  Sound System. Enable Run with highest possible priority, and increase the size of the Sound buffer: (warning, see the next FAQ!) You should also ensure that your artswrapper is suid: **su chmod a+rsx/path/to/kde/bin/artswrapper killall -9 artsd** With KDE 3.2.x there are issues with the KDEMultimedia codecs that can cause distorted playback, please see this bug report. Also, increasing the size of the sound buffer in your .asoundrc alsa configuration file can help a great deal.

9. The CPU usage is high, is there anything I can do to improve it?

Either don't use the aRts-engine, use the GStreamer or xine engines, or address the high CPU usage by installing KDEMultimedia in its entirety to get the faster aRts codecs (eg. libarts\_mpeglib.so, etc.)

10. The Amarok analyzers are really unresponsive!

You are probably using the aRts-engine, either use another engine (the xine-engine has been seriously tweaked to give perfect analyzer-sync), or reduce the size of your aRts buffer in kcontrol, sound system. The lower the buffer the more responsive the visuals. Yes this is a bug, please help us fix it!

11. I have GStreamer installed but when I try to change to the GStreamer engine Amarok crashes, what gives?

After installing GStreamer you have register it's components, running 'gst-register' (sometimes suffixed with a version, so gst-register-0.8) should take care of registering your GStreamer components.

- 12. *I ran gst-register but I still have have GStreamer troubles, what can I do?*You can try the GStreamer FAQ. If all else fails you can try the knowledgeable people at the #gstreamer IRC channel.
- 13. Amarok says that the GStreamer engine cannot play MP3 files, although I have compiled/installed the mad plugin!

Try this (make sure that Amarok does not run): - Download, compile and install the ffmpeg package - Run gst-register (you may need to run it twice, as root and as your "normal" user) - Go to your GStreamer plugin directory (you can find it with gst-config / gstreamer-config) - Delete the ffmpeg files (or move them somewhere else) - Run gst-register again - Start Amarok

# 6.6 Development

1. How do I get a cvs/svn version of Amarok?

How to obtain and build SVN Amarok

2. I've found a bug / I've got a great idea for Amarok!

Please report it at bugs.kde.org, if you have a list of suggestions/wishes it may be best to send them to our mailing list: amarok-devel@lists.sourceforge.net

3. Do you accept patches?

Happily! Your best course of action is to let us know what you plan to do before you do any work so we can discuss it, but don't fret we haven't turned down a patch yet! Discussion is mostly to help you patch the correct bits of Amarok. Then either submit a patch to the mailing list, or commit if you have svn access. However, please let us know before you commit new features to svn! If you have a bug fix then just go ahead, this is open source after all:)

4. Why did you choose the name Amarok?

Amarok is an album by British composer Mike Oldfield. I happen to like it a lot, and I think the name's got a nice sound. Plus, of course, it contains the all important "K".. :)

5. *Is it Amarok, AmaroK or Amarok?*It is Amarok! Yes, we understand this is unconventional ;-)

## 6.7 Tips and Tricks

1. How do I use Amarok as an alarm clock?

Actually, thanks to the magic of DCOP you already can:) Simply set an alarm in your favorite calendar program and tell it to run the following command: **dcop amarok player play** This command will tell Amarok to start playing. Make sure that Amarok is running before you go to bed, and you should wake up to the merry tune of whatever you pressed stop on before going to bed.

- 2. How do I get what Amarok is playing right now, when I'm on another computer? If you have a properly set up ssh environment, you can use that to get the information. The following command will return the Now Playing string. ssh -i /.ssh/id\_rsa yourip dcop --user yourusername amarok player nowPlaying Make sure that you replace yourip with your IP and yourusername with your username. Also note that this expects your identification to be found in the /.ssh/id\_rsa file.
- 3. What kind of tricks can the Player Window do?

The Amarok player analyzers can be detached from the Player Window. By pressing d on your keyboard the active analyzer will open in an independent, re-sizeable window.

4. What kind of tricks can the Playlist Window do?

Holding Control and clicking the right mouse button enqueues files in the order in which you clicked them. Pressing Enter after making a playlist search will play the first search item and will clear the search.

5. I see the Player Window and Playlist Window have neat tricks, what about the tray icon?

Hovering your mouse on the icon will display a nice popup with current track information. Clicking the middle mouse button on the icon play-pauses the current track. Scrolling the mouse wheel changes volume. Holding Shift while scrolling the mouse wheel seeks through the current track. Holding Control while scrolling the mouse wheel will skip through tracks in the playlist. Dragging and dropping items into the tray icon opens a pop up menu allowing you to choose from three options, Append to Playlist, Append and Play, and Queue after Current Track. Tray icon is also a song position indicator.

6. Where do I find the settings for Amarok?

/.kde/share/apps/amarok /.kde/share/config/amarokrc

7. How do I disable a browser section in Amarok?

Clicking with the right mouse button on any browser title shows up a list of visible browsers. You can use this list to disable/re-enable any browsers available.

## 6.8 General Questions

- 1. How Do I use an external MySQL database with Amarok? See MySQL HowTo.
- 2. My \$HOME is located on NFS. After startup, Amarok fails to build the Collection, printing many database errors to the console. What to do?

The internal SQLite database which Amarok uses by default does not work on NFS. You must either link your /.kde/share/apps/amarok directory to a local drive, or use the MySQL support.

3. How can I rip/encode Audio-CDs with Amarok?

Insert your CD, then click on "Play Audio CD" in the menu. The File-Browser will come up and show a tree with several folders. For normal ripping, go to the "wav" folder, select some tracks and drag them to the desired destination in a Konqueror window. For automatic encoding, drag files from the "mp3" or "ogg" folder instead.

### NOTE

CD-ripping requires the "AudioCD KIO-slave" to be installed. It is part of KDE-Multimedia.

4. How are track ratings determined?

Amarok assigns a rating (a number 1-100) to a song based on how many times you've listened to it and whether you skip the song without it finishing. Every time the song finishes playing, the rating is changed. The code for changing the rating is in collectiondb.cpp. As of version 1.2.2, it was on line 1181, though you can find it by searching for "CollectionDB::addSongPercentage". When defining a score for a track which has never been played before, Amarok uses the calculation score = ( ( 50 + percentage) / 2) This sets the score equal to a number from 25-75, depending on how far through the song was allowed to play. For example, if the user stops or skips the song after only 25% of it has played, the score will be set to (50+25)/2, or 37.5. Scores are displayed as integers, however, so this number is rounded to the nearest integer before being displayed. The score is kept internally as a floating point number however, since after a song has been played several times, it may be impossible to alter the score by more than a point with a single play (see below). When defining a score for a track which has been played before, the calculation is a bit more complicated. In the source, it is score = ( ( values[2].toDouble() \* values.first().toInt() ) + percentage ) / ( values.first().toInt() + 1);Substituting in the values from this line:

```
QStringList values = query( QString(
    "SELECT playcounter, createdate, percentage ↔
    FROM statistics "
    "WHERE url = '%1';" )
    .arg( escapeString( url ) ) );
```

We have score = ( ( statistics\_percentage.toDouble() \* PlayCounter.toInt() ) + percentage ) / ( PlayCounter.toInt() + 1 ); Basically, this adjusts the previous score (statistics\_percentage) by a decreasing amount depending on how many times the track has been played. The more times the track has been played, the less of an impact each play has on the score.

5. How do I manually change a track's rating?

You may change the rating manually by right-clicking on the playlist columns titles (the ones that say title, artist, album etc) and select Score. You can then change the score like any other song attribute, by right clicking it and selecting "Edit Tag 'Score'" or pressing F2. You can also edit the score in the Tag dialog, available by right clicking on a track.

6. Why isn't Amarok part of KDEmultimedia?

The developers don't want the man telling them when they can release. (Meaning, packages in KDE proper have a release schedule that doesn't fit with Amarok's fast-paced development).

7. How do I prevent the Amarok icon from blinking in my system tray?

This is a new feature that has been added that some users might find distracting. Simply uncheck the "Flash icon tray when playing" option under General Options.

8. How can I show/remove the analyzer in the playlist window?

The playlist analyzer is part of the playlist toolbar. Select Settings  $\rightarrow$  Configure Toolbars Add/Remove Analyzer to the Current actions Press OK

9. How do I change the Context Browser theme?

Download a theme or make your own. Install it through Configure Amarok... → Appearance → Context Browser Style, click Install New Style.

10. What legal issues caused "Blue Wolf" icon replacement?

The icon was way too similar to the Warp Graphics, Inc. logo (elfquest.com), so it had to be removed to avoid problems.

11. *I don't have any visualizations. Where can I obtain these?* Install the latest version of libvisual.

12. How can I add my favorite streams to Amarok?

First of all, load the stream into the playlist. There are several ways to do this. You can simply click on a Stream-Playlist URL in Konqueror; Amarok will then automatically open the stream. E.g. on shoutcast.com,

click on the "Tune In" button. Or you can use the "Add Media" function to load a stream. Once the stream is loaded, you can save it by right-clicking on "Current Playlist" in the Playlist-Browser, then select "Save", and give it a meaningful name. The Stream will then be added to the Playlist-Browser view for later reference.

# 6.9 Konqueror Sidebar

1. What is Konqueror Sidebar?

Konqueror sidebar allows you to monitor/control Amarok while browsing with Konqueror. To see it, run Konqueror, press F9 to see sidebar, click on preferences (top one) button, in dropdown menu choose Add → Amarok Konqueror Sidebar.

### 6.10 Audioscrobbler

1. What is Audioscrobbler?

Audioscrobbler is a free service that is sends information regarding which songs are played to an independent server. The service signup is free and only requires that you pick a user name and password that is not already in use. Audioscrobbler is currently utilized in Amarok.

- I do not want Amarok to send information to Audioscrobbler!
   Uncheck "Submit tracks I play" to prevent querying Audioscrobbler for suggested tracks.
- 3. How do I get to the Audioscrobbler Amarok group?

  The Audioscrobbler Amarok group is located here: Amarok Audioscrobbler Group

# 6.11 General Engine/Playback Questions

- Which sound engine should I use?
   Please refer to the Audio Engine Comparison.
- 2. What version of ALSA should I use?

If you output to ALSA, you should use the newest available version of ALSA possible! Old versions of ALSA have caused plenty of crashes, and have caused plenty of wrongly attributed crash-reports.

3. I've installed GStreamer/xine/etc., but the relevant audio-engine won't show up. What gives?

Amarok was probably compiled before you had xine and/or gstreamer installed, so the ./configure routine did not include them in the list of engines to be built. You will have to rebuild Amarok.

4. But I did rebuild Amarok after installing gstreamer and/or xine, but the engine still does not show up. What happened?

You most likely are using a distro that packages development libraries separately from the main library, so even though gstreamer is installed, Amarok cannot link to it because gstreamer-devel is not installed. The same issue exists for xine, you must install xine-devel if your distro splits packages in this fashion. Don't forget to rebuild Amarok after installing the devel packages.

# 6.12 GStreamer engine

- 1. Why is there always a gap although I have crossfading enabled?

  Make sure you don't have gst-ffmpeg installed. Instead, install the gst-mad plugin.
- 2. I'm getting this error: "GStreamer-CRITICAL \*\*: Factory for 'adder' has no type.". How to fix?

Your GStreamer was built with Prelinking, which is not compatible with GStreamer. You must rebuild it without this option. merlin-tc advises: 'In addition, don't use any ldflags when building GStreamer.'

- 3. You receive an error "There is no element present to handle the file's mimetype audia/mp4" even though you have the correct gstreamer-faad plugin is installed.

  To correctly play mp4 or m4a files with gstreamer, you must also have gstreamer-quicktime in addition to gstreamer-faad installed.
- 4. You receive an error "There is no element present to handle the stream's mimetype audio/mpeg"

You are trying to play an mp3 stream without the gstreamer-mad plugin installed. Install the gstreamer-mad plugin and run "gst-register" as root before restarting Amarok.

5. I have a second soundcard and I'm using ALSA. How do I make Amarok use it instead of the default?

In Settings  $\rightarrow$  Configure Amarok  $\rightarrow$  Engine, check the 'Device' checkbox and fill in the device. Typical this is 'hw:0' for the default soundcard, and 'hw:1' for the second soundcard.

## 6.13 xine engine

1. How can I change where the audio is output to?

If you are using ALSA, you can output to a specific device with xine. Set up an /.asoundrc (user only) or /etc/asound.conf (system wide) file that aliases your hardware devices, and then insert that alias in the "device used for stereo output:" box in the xine-engine configuration tab. Alternatively, you can directly enter the alsa device (hw:0,0 or hw:1,0 and so on). If you choose this latter (alternate) method, be aware that ALSA's corresponding plugfoo (e.g. plughw:0,0 or plughw:1,0 and so on) routing through alsa-lib is much preferred.Here is a sample /.asoundrc for a machine that has an onboard Intel AC97 codec and a usb-audio device:

```
pcm.intel8x0 {
    type plug
    slave.pcm "hw:0"
}

ctl.intel8x0 {
    type hw
    card 0
}

pcm.usb-audio {
    type plug
    slave.pcm "hw:1"
}

ctl.usb-audio {
    type hw
    card 1
}
```

Now enter usb-audio in the xine-engine setup screen and output should go to the usb-audio device (with alsa-lib properly handling sample rate conversion, channels, and so on). To use a dmixed virtual device, ensure that the "sound card can do mmap" checkbox is unchecked.

# 6.14 aRts engine

#### Note

Sorry, aRts-engine has no maintainer, but feel free to fix it yourself! You could be the new aRts-engine maintainer we need so desperately!

# Chapter 7

# **Credits and License**

Program copyright 2003-2005 Mark Kretschmann markey@web.de and The AmaroK Team.

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# **Chapter 8**

# Requirements

Amarok requires the installation of some software packages. The required packages are listed below along with several other packages to enhance your Amarok experience.

### REQUIRED:

- KDELIBS 3.3
- TagLib 1.4

### RECOMMENDED:

• GStreamer-0.8.6 and Gst-Plugins-0.8.6

### OPTIONAL:

- aRts 1.3
- K3B 0.11
- KDE-Base 3.3 (needed for Konqueror Sidebar)
- KDEMULTIMEDIA 3.3
- libtunepimp 0.3
- Libvisual 0.2.0 and Libvisual plugins
- MAS 0.6.3
- MySQL 4
- NMM 0.7.0
- OpenGL accelerated X-Server
- ProjectM 0.96

- Real Player 10
- SDL 1.2
- xine 1.0.0
- XMMS 1.2 and XMMS visualization plugins

### Note

If you obtain these dependencies via a packaging system, you must also install the devel versions of these packages!

# Appendix A

# Installation

## A.1 How to obtain Amarok

Amarok can be downloaded from The Amarok home page

The latest development version can be obtained from KDE SVN, module /trunk/extragear/multimedia/amarok/.

## A.1.1 How to compile Amarok

In order to compile and install Amarok on your system, type the following in the base directory of the Amarok distribution:

./configure --prefix='kde-config --prefix' make su -c "make install"

Note

The --enable-final configure flag is no longer supported.

Since Amarok uses **autoconf** and **automake** you should have no trouble compiling it. Should you run into problems please report them to the KDE mailing lists.

## A.1.2 Configure Options

Amarok is like most other apps in that it has several compile time options that can be enabled or disabled during configure. This is a list of the options that can be configured.

### Note

Some compile time options require specific dependencies to be used. See the requirements section for more details.

Option	Default	Description
enable-debug=		Enables debug
	no	symbols. Choose
		from 'yes', 'no', and
		'full'. Please use the
		'full' option if you
		intend to help with
		Amarok
		development.
enable-mysql		Enables MySql
	Disabled	database support for
		Amarok
disable-amazon		Disables Amazon
	Enabled	cover art
		downloading support
		in Amarok
without-arts	With	Disables aRts support
		for Amarok
without-gstreamer	With	Disables GStreamer
	VVICII	support for Amarok
with-helix	With	Enables Helix engine
	VVILLI	support for Amarok
without-xine	With	Disables xine support
	VVIIII	for Amarok
with-nmm	Without	Enables NMM
	VIIIIOUL	support for Amarok
with-mas	Without	Enables MAS support
		for Amarok
without-opengl	With	Disables OpenGL
		(analyzer) support for
		Amarok
without-included-s- qlite	With	Do not use the
		included sqlite
		sources (requires
		sqlite to be installed)