

## Comparing Linux media players

## SOUNDS

We compare some popular Linux media players, including Banshee, Rhythmbox, Amarok, and Songbird. **BY SHASHWAT PANT**

**M**edia player applications have come a long way and are now a primary source of entertainment for many computer users. Linux has several enchanting media player offerings with many advanced features and a plethora of add-ons to spice up your listening sessions.

Today's media players offer much more than just playback for media files. Most media players come with exquisite features, such as ID3 tag editing, online streaming support, and external device synchronization. For this article, I took a look at a few popular media players for Linux, including Banshee, Amarok, Songbird, and Rhythmbox.

### Banshee: The Controversial Queen

The Banshee media player [1] has triggered controversy in open source circles because of its dependence on the Mono software stack. Banshee (Figure 1), which was first called Sonance when started in 2005, is built on top of Mono and Gtk+, making it more of a Gnome-based player. Banshee can use both GStreamer and Helix for media streaming.

The Banshee project provides frequent updates to the software, giving you easy

access to bleeding edge features right out of the box. Banshee offers a clean and hassle-free interface with a three-way navigation panel. The Album browser panel can be set to horizontal or vertical according to your preference.

The left navigation panel has a number of easily accessed options, including *Now Playing*, *Play Queue*, *Music Library*, *Video Library*, *Podcasts*, *Last.fm*, and *Radio*. A new section will appear if you attach any externally supported media player, allowing synchronization and music sharing with portable players. Banshee lets you add music collections on the fly; the only problem is it will not automatically start fetching content – you have to enable the option manually in *Tools | Rescan Music Collection*. Banshee will fetch Album art while synchronizing media collections, add media covers from the media folders, and fetch covers from the Internet. On the downside, Banshee doesn't let you set cover art manually.

Banshee supports video playback (Figure 2). As for media streaming, Banshee

### Testing Criteria

Media players and media devices now offer more than just listening. On the basis of the belief that a complete media player should offer more than just the basics, I rated the media players in this article according to the following criteria:

- **Basic Media Capabilities** – Apart from extra bells and whistles, how did the player perform with the basic functions? The test included a comparison of media codec support, playlists, user interfaces, and media device support.
- **Extended Media Capabilities** – A complete media player should offer good media streaming capability, along with a handful of other goodies. I looked at support for a complete tag editor, album art fetcher, online streaming and buying options, interoperability with other players, and expandability.
- **Ripping and Burning** – Many users like to burn their favorite tracks to disc; in fact, this feature has become a de facto standard, and all media players should support easy burning through a native burning client.

To test these media players, I used Fedora 11 and Mandriva 2009.1 Spring KDE. All players were tested in their native environment (i.e., KDE or Gnome). The test system includes all the necessary GStreamer and Xine codecs. To test the syncing capabilities, I used both an iPod Shuffle and a Nano 5th generation, and the tests included various audio file formats to see the codec spectrum of the media software.

supports a handful of media formats. It was able to play FLAC, MP4, Ogg Vorbis, WMV, and MP3. However, don't expect Banshee to play container formats, and it fails to play some less popular formats like AMR.

Banshee has support for an array of portable players, including the latest iPods, Androids, and Creative players. However, the iPod support in Banshee is flaky (Figure 3); syncing my iPod Nano with Banshee unset all the cover art set by other iPod managers. Another shocker was that all of my iPod Shuffle songs went orphan and were left inaccessible, so I could only play the songs synced with Banshee. This demonstration underscored Banshee's generally weak iPod integration.

Banshee has support for a number of online streaming websites, along with varied support for online radio and podcasts. Even Last.fm integration seemed mediocre; Banshee was unable to fetch and play songs from Last.fm, which seems to be another setback for a mainstream player. Apart from these major hiccups, Banshee does have some positive features. For instance, it offers a decent ID3 tag editor (although it lacks an album art editor). Also, Banshee comes with an equalizer.

The Banshee media player offers easy playlist creation and even allows you to export playlists in universal format, offering seamless integration over different media players. Banshee also lets you bookmark video media, allowing quick access to your favorite scenes, and then provides effortless CD burning with Brasero. Creating audio CDs couldn't be much easier. However, Banshee lacks support for other Linux disc-burning software, be it the mammoth Nero or K3b.

Unlike other media players, Banshee offers video as well as audio streaming capabilities. Perhaps a deeper range of video codec support would be a worthy addition.

Overall, Banshee is a decent media player with extraordinary audio and video streaming capabilities. However the flaky iPod support is an issue – at least for me. Another downside for Banshee is its sketchy ID3 tag editor and Last.fm integration. The developers have already laid out plans for upcoming revisions, and hopefully they will fill the

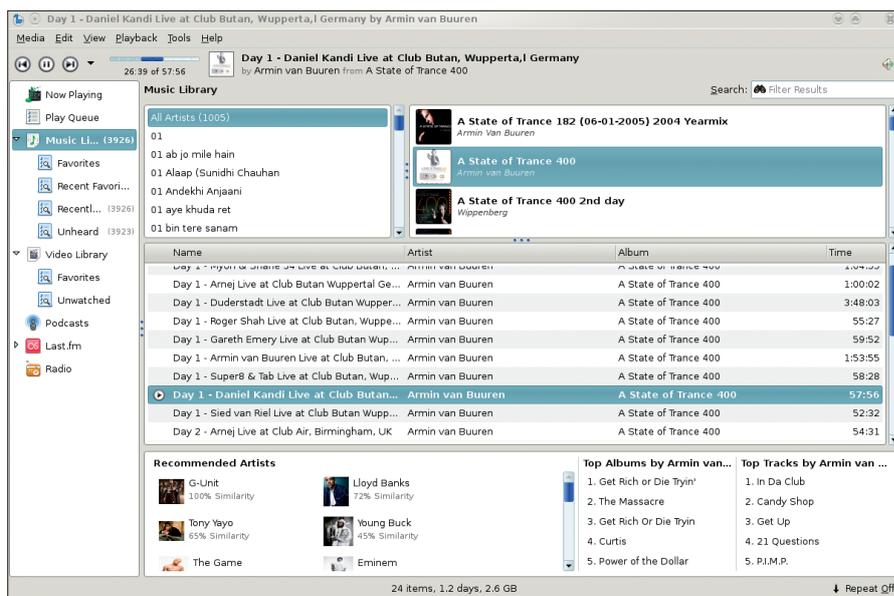


Figure 1: Banshee showing added albums and recommendations.

gaps to make Banshee more usable and complete.

## Rhythmbox: Piling On Simplicity

Rhythmbox [2] is the default media player for many Gnome-based distributions. The interface, reminiscent of the behemoth iTunes, is one of the easiest to use. Like other Gnome-based players, Rhythmbox thrives on GStreamer and offers seamless integration with Gnome applications, such as the Nautilus file manager or the Brasero disc-burning suite.

The interface is very easy to use. Unlike Banshee, Rhythmbox will fetch all content automatically once you set the source media directory – just make sure

you check *Watch my library for new files*.

Rhythmbox comes with a ubiquitous three-way navigation panel that is similar to Banshee, but with some cosmetic changes (Figure 4). The navigation system comes with a fixed panel that includes options such as *Play Queue*, *Music*, *Podcasts*, *Last.fm*, *Radio*, *Stores*, and *Playlists*. Rhythmbox automatically adds album art if it is present in the media folder, and it will fetch content from the Internet if necessary.

Media streaming capabilities are good, thanks to the GStreamer back end. Rhythmbox can render any format you throw at it. Unlike Banshee, Rhythmbox has proper Last.fm integration and plays

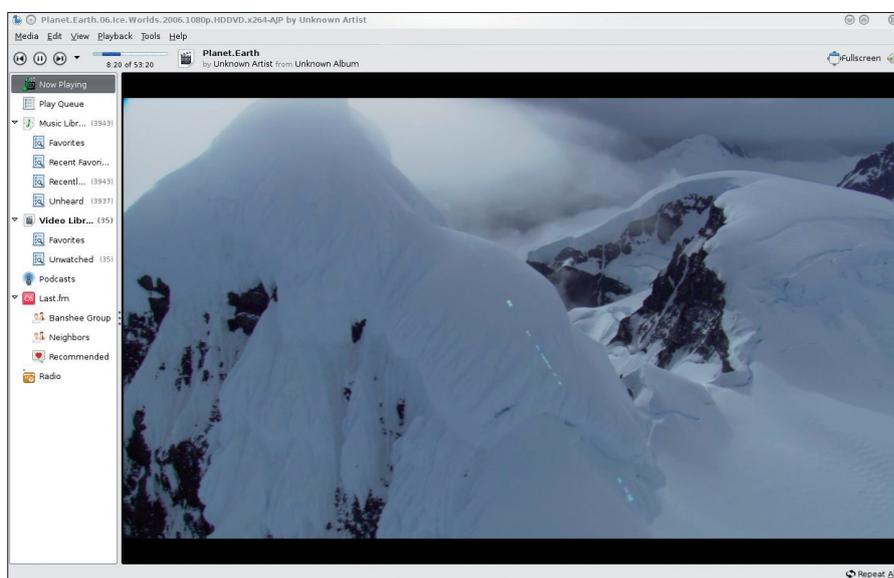


Figure 2: Video playback with Banshee.

Last.fm content without faltering. Despite its minimalist nature, Rhythmbox offers more juice than Banshee does and

even allows you to buy and download tracks from online music websites like Jamendo (Figure 5) and Magnatune.

Rhythmbox also comes loaded with some stunning plugins that you can enable from *Edit | Plugins*. Another interesting feature shows the current song as a status message in your instant messenger, although this feature is limited to Empathy and Gossip.

Rhythmbox lets you customize the player windows: Opt for either a small window configuration or a full screen, which is known as Party mode. Playlist creation is child's play; with a few easy clicks, you can create and sync your favorite tracks and even export the playlist. Rhythmbox offers more options than Banshee for exporting a playlist.

Rhythmbox has some issues, though. For instance, although it boasts iPod support, I wasn't able to transfer data to an iPod. The ID3 tag bundled with the player is niche and doesn't even allow you to edit complete tags; nor does it allow you to change or save album art in the media file itself. So if you are willing to edit the metadata, you must resort to a full-blown ID3 tag editor like EasyTAG.

I am not a Rhythmbox fan, nor have I used Rhythmbox in a Gnome distro, but during the course of the review, I discovered that Rhythmbox is a very powerful alternative and a perfect replacement for the other bloated media players. Of all the media players tested, Rhythmbox used the least amount of resources. With a mere 25MB of memory utilization, Rhythmbox gains the top spot in the usage/performance section.

Rhythmbox is a great media player, although the lack of an equalizer is unfortunate. A plus would be a better interface with a more complete ID3 tag editor and more comprehensive iPod support. Another downside is the Rhythmbox development timeline. Unlike the other media players, development in Rhythmbox is rather passive and less innovative. Overall, I am impressed with Rhythmbox's features and low resource usage.

## Amarok 2: Resurrecting the Wolf

Often touted as the most powerful and dominant media player, Amarok [3] (Figure 6) doesn't stand back when it comes to innovation. With the release of the much-hyped KDE4, Amarok developers were adamant to deliver an unblemished media player for the refreshing KDE/Q4 desktop. However, everything doesn't al-

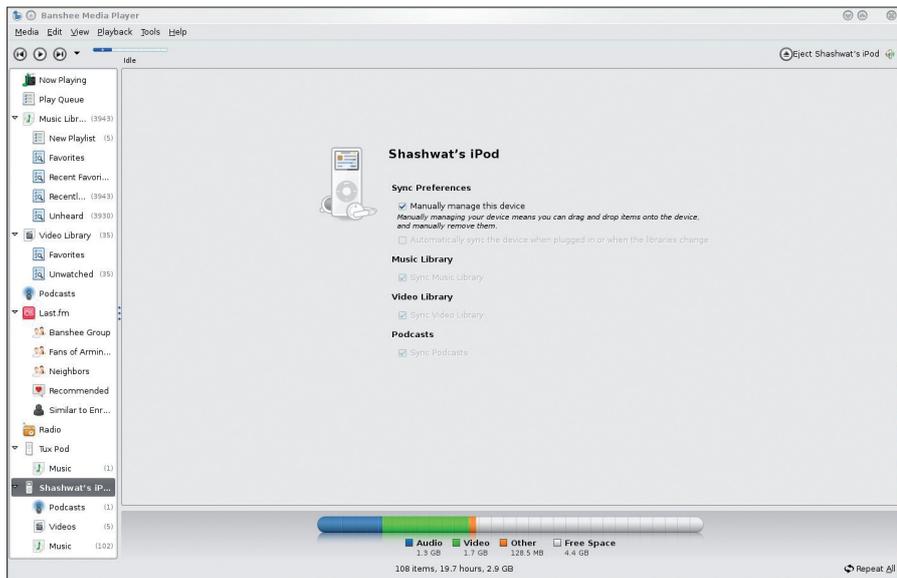


Figure 3: Banshee had some problems with iPod support.

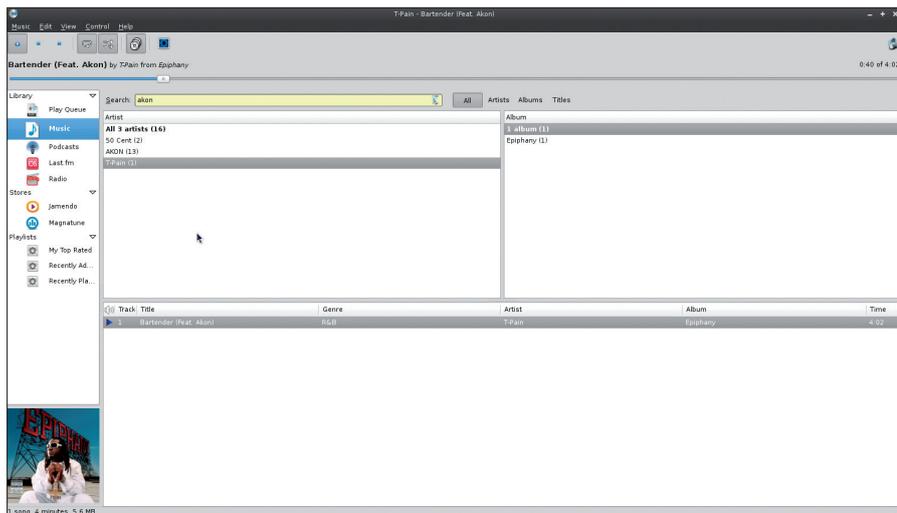


Figure 4: The Rhythmbox default user interface provides a three-panel structure.



Figure 5: Shopping for music at the Jamendo online music site.

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Figure 6: Managing music with Amarok.

ways go according to plan. The Amarok developers had a fate similar to other KDE projects, in that the first stable Qt4/KDE4 release was KDE 4.1 rather than 4.0. Initially, the port to Amarok 2.0 was rather unsatisfactory and failed to deliver all the features of the highly acclaimed version 1.4.x. With time, developers have added many features and released the new version 2.1.1, which was used in this review. Even now, not all the features are ported in the Qt4 version of Amarok, but development is going full swing, and you can hope for a much better version in the upcoming 2.2 or 2.3 release.

With KDE4 onboard and loaded, Amarok gains some advantage from the new Plasma desktop shell and other new features. Amarok uses almost all the KDE4 back ends. Unlike other players, Amarok starts with a beautiful splash screen and

comes with an overhauled user interface. The interface is very customizable: You can add or remove plasmoids, and you will find some very unique plasmoids that display recent tracks, lyrics, and media devices. Additionally, you can fetch content from Wikipedia.

Amarok made its debut in 2003, and very soon it set the standard for media players in the Linux environment. The wolf spread its tail, making the most of the KDE desktop. With 2.0 and KDE4, Amarok will entice even more users with its enhanced interface and streaming capabilities. Adding a collection was quick and easy, and it will automatically start syncing as soon as you apply the changes.

Amarok supports both Xine and GStreamer. Permissible formats include FLAC, Ogg, MP3, AAC, WAV, Windows Media Audio, Apple Lossless, WavPack,

TTA, and Musepack. Despite this versatility, Amarok failed to play MP4 and WAV, both of which are on the supported list. (All the other players were able to stream these formats without any issues.) Amarok had no problems with MP3 and a host of other media formats.

Managing and creating a playlist couldn't be easier. The Amarok playlist manager is the most powerful I have ever come across. The playlist manager comes with a plethora of useful options to help you make the most out of your collection. It even allows you to repopulate the playlist by selecting random tracks. (This feature comes in very handy if you have a big collection.)

The Amarok player provides the best assortment of online streaming and purchase options, including seamless integration with some online vendors.

The user interface is highly customizable; you can customize nearly every navigation panel. Amarok even comes with a small file manager that lets you navigate through your hard disk and easily append the tracks to the playlist.

Amarok grabs the crown for album covers as well, letting you easily remove and add cover art. With a search online, you can set the cover, or you can add it manually. The icing on the cake is the cover art manager (Figure 7), which lets you keep an eye on all the albums with or without a cover, and from there, you can set up covers easily without going through the massive collection. Amarok comes with media device synchronization and offers support for iPods and MTP-based media players. Although I didn't encounter any transfer and compatibility issues, the interface and copying options were a bit confusing. You can only sync music from the left music pane and cannot perform the similar function from the middle or right pane.

Expandability is also strong for Amarok. The built-in script manager lets you add scripts and plugins easily. Scripts installed from kde-look provide more juice to the marching wolf.

Amarok 2 has opened a whole new dimension in the Linux world by delivering an extraordinary audio experience; however, streaming had some issues, and the player became unresponsive while I was adding a WAV file. Amarok 2 offers great features of its own, and it is even better when combined with trade-

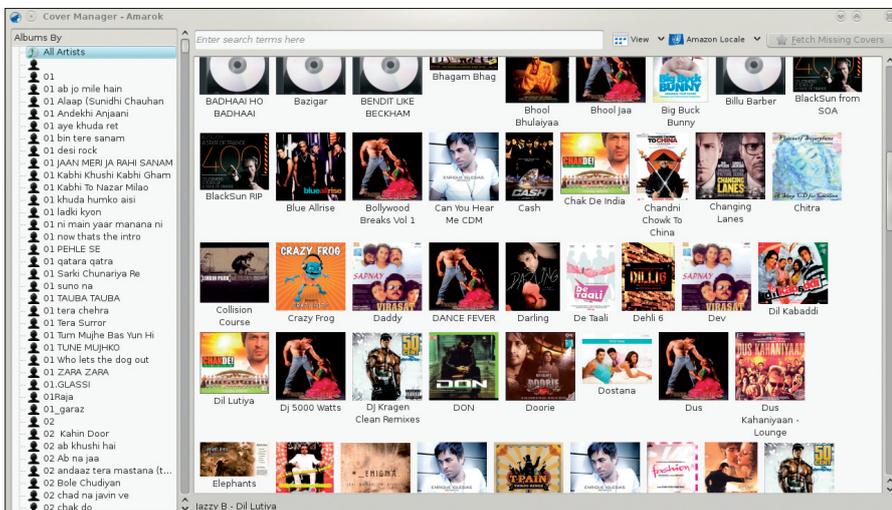


Figure 7: Keeping track of cover art with Amarok's Cover Manager.

mark KDE features such as Phonon, Solid, and Plasma.

With its highly customizable and easy-to-use user interface, Amarok offers an impressive new version. The developers are working hard to deliver a more refined and feature-laden version with the 2.2 release, which will include some much-awaited improvements to USB drive support.

### Songbird: A New Arrival

Songbird [4] (Figure 8) is a new name in the Linux world. This bird has emerged as one of the better media players. Built on top of XULRunner, it offers the most revolutionary blend of media player and web browser, providing a cross-platform media experience with GStreamer as its back end.

After you install Songbird, you will see a configuration wizard that helps you set up the plugins and music collection. Music synchronization is very fast, but it fails to add album art from the media folder, so you must resort to fetching covers, which isn't a convenient solu-

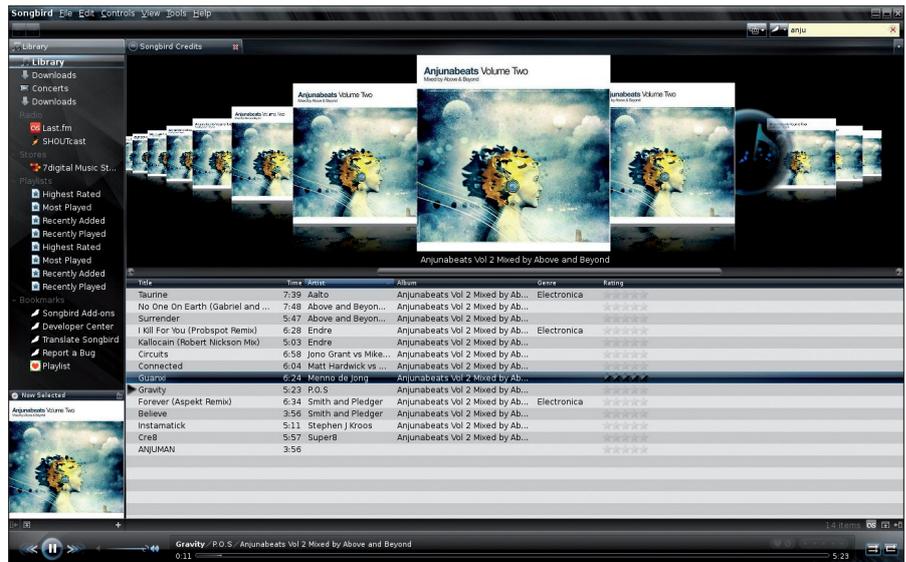


Figure 8: Songbird's user interface with some personal modifications.

tion. I noticed that the interface looks very similar to iTunes.

The user interface is smooth, and it will seem familiar in no time. It wasn't long before I noticed that Songbird comes with a browser as well. This bird is not only a media player but also a full-

blown browser built on the Firefox engine. I encountered no problems when using the browser – the pages loaded smoothly. But songbird offers much more than a chance to surf the web. Another stunner is its ability to install add-ons just like Firefox.

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Songbird was able to play every file I used during the test, including MP3, AAC, Ogg Vorbis, FLAC, Apple Lossless, and WMA files. Also included is a 10-band equalizer – unfortunately, with no preset audio profiles. The player provides automatic fetching of audio content and segregation into different pre-configured playlists, such as *Recently Played*, *Most Played*, *Recently Added*, *Highest Rated*, and so on. Songbird is the only media player that comes with a decent ID3 tag editor, allowing you to edit many tags, and the Songbird interface includes a feature that lets you change cover art.

Songbird offers hassle-free online radio integration, providing two online streaming options and one music store out of the box. More stores and radios are available as add-ons. The Songbird base package doesn't come with support for external media devices, making for a bare bones media player. Songbird also uses the most memory of all the tested media players, at a massive 100MB. The player feels bloated and is not as responsive as the others, even when run on a Quad core system.

Songbird, however, is the most tweaker-friendly media player, with a monstrous collection of plugins, ranging from helpful to cosmetic add-ons (Figure 9). Even Zune can be supported, which was supposed to work only in Windows. The Songbird media player has no support for disc burning in version 1.2, but this feature has been planned for an upcoming release.

Songbird is one unique player, with a

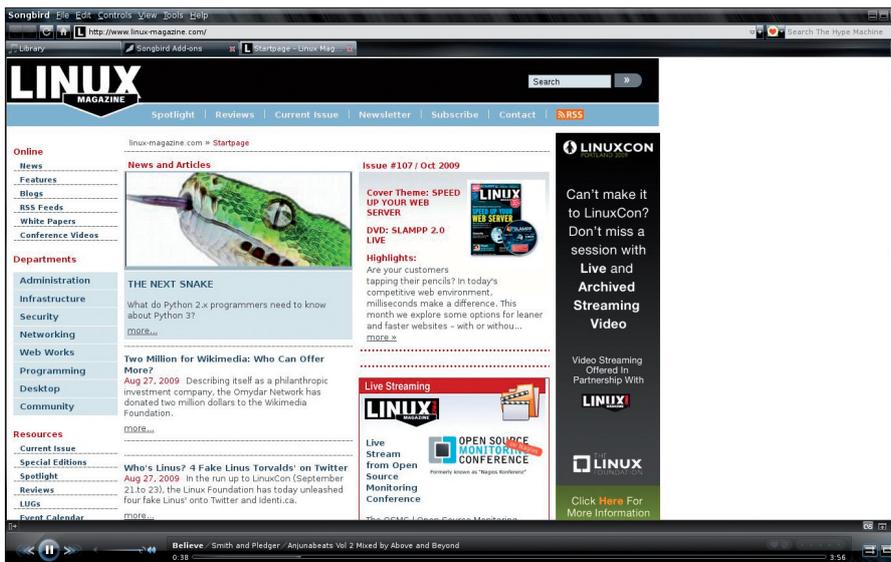


Figure 10: Songbird packs web and music features in the same user interface.

perfect blend of web and media features (Figure 10), a plethora of add-ons, and a pliable interface, although it is missing support for an external media device, and it suffers from high system utilization and sluggish performance out of the box. Overall, though, it is a great media player.

### Fading Acoustics

The Media player options in Linux are worthy enough to sustain an audioophile's enthusiasm. The only gripe I had with the media players reviewed here is that none of them really offered a complete solution out of the box. Songbird does provide a complete solution if you consider the sheer number of add-ons, but no player fulfills all expectations without some tweaking.

Every player has its own strengths: Amarok with plasmoids, Songbird with add-ons, Rhythmbox with a minimalist interface and low utilization, and Banshee with video/audio streaming.

Overall, I found Songbird to be the most feature-laden and customizable media player. The next in line is Amarok. With a simple interface and plasmoids, Amarok is very easy to work with, with an unparalleled playlist manager and many online streaming stations.

Banshee is the only contender that offered both audio and video streaming on the fly, and with version 1.6/2.0, developers are planning to build in picture support and roll out a netbook-specialized version. Rhythmbox, on the other hand, offers a simple interface with minuscule system utilization.

Are you ready for the music? Which media player is right for you? ■

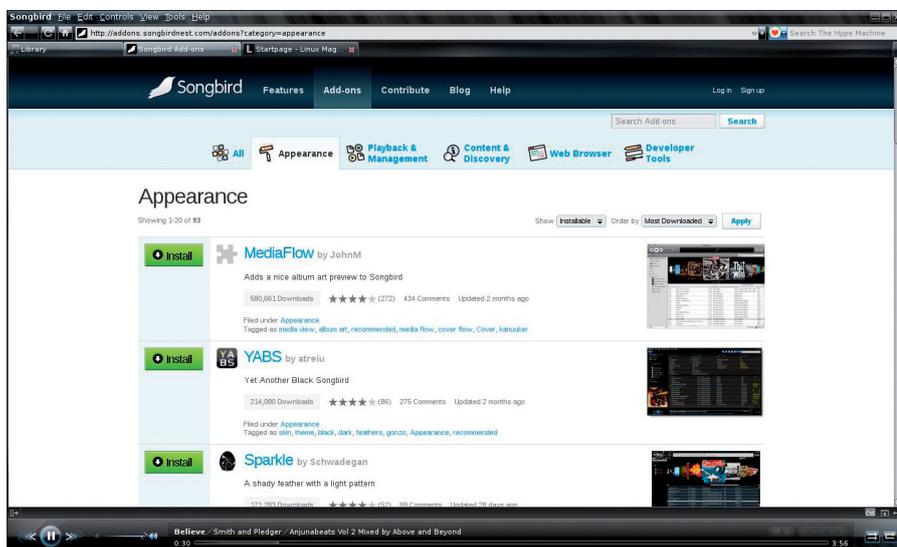


Figure 9: Browsing for plugins at Songbird's plugin portal.

**INFO**

- [1] Banshee: <http://banshee-project.org/>
- [2] Rythmbox: <http://projects.gnome.org/rhythmbox/>
- [3] Amarok: <http://amarok.kde.org/>
- [4] Songbird: <http://getsongbird.com/>

**THE AUTHOR**

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