



Banshee 2.0

Aaron Bockover

#gcds July 7, 2009



What is it?

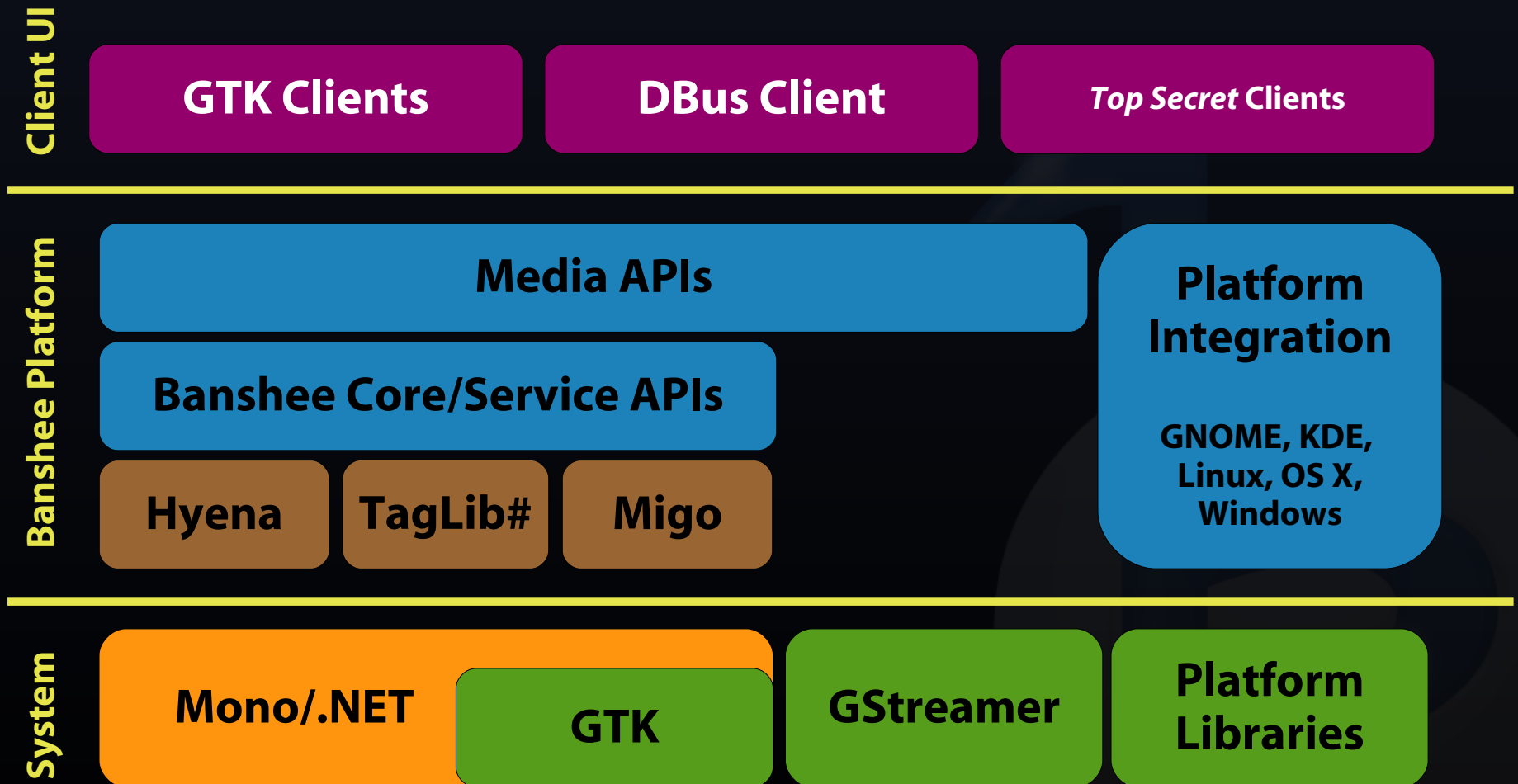
- ♦ Media management platform and some cool user interfaces on top of it
- ♦ Insane amount of awesome features
- ♦ Very fast, SQL-driven
- ♦ Powered by Mono, GStreamer, and SQLite
- ♦ 4.5 years old, in its third generation
- ♦ Umbrella project for lots of Mono libraries
- ♦ 105,000 lines of C# + 2,500 lines of C (GStreamer)

It's not just an app, it's a platform

- ♦ I know, sounds cliché. I don't like saying it either, but it's true
- ♦ Here's why



It's not just an app, it's a platform



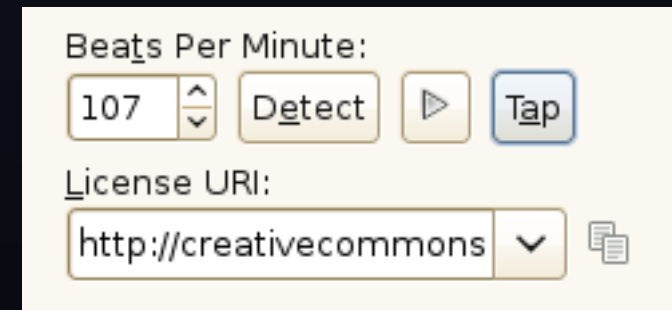
I'm implementing a no more diagrams policy now.

Any questions? That was an important diagram and you'll want to understand it for the rest of the talk.




What follows are ~450 slides taking a dependency on that diagram.

New for 1.6



- ♦ Import from Rhythmbox
- ♦ BPM detection
- ♦ Automatic scoring
- ♦ Creative Commons
- ♦ Separate library locations
- ♦ Unicode-aware, case insensitive queries
- ♦ 200+ and counting bugs fixed since 1.4.3



Beats Per Minute:

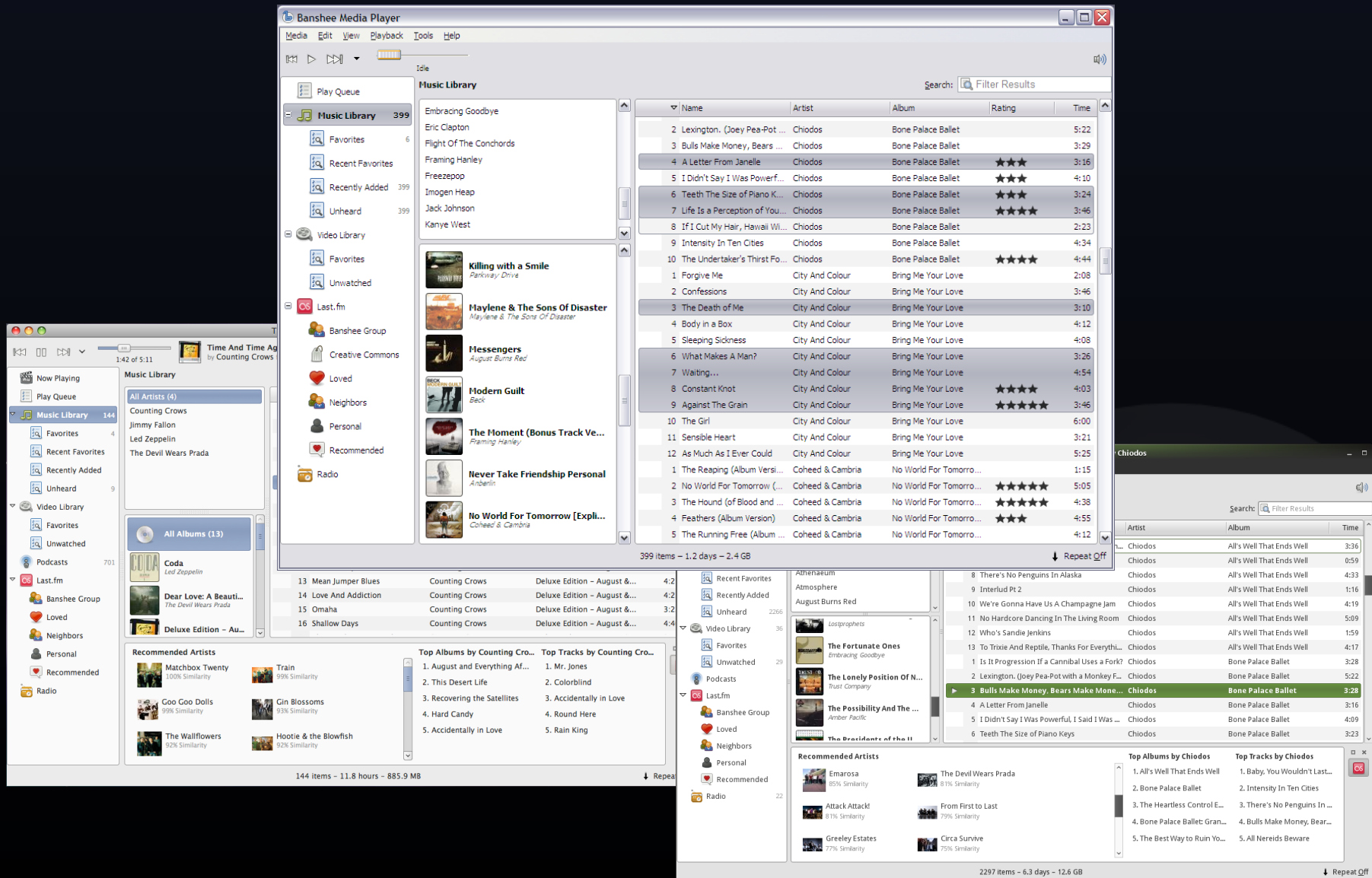
107   Detect  Tap

License URI:

The screenshot shows a user interface for BPM detection. It includes a numeric input field set to 107, up and down arrow buttons, a 'Detect' button, a play button, and a 'Tap' button. Below this is a 'License URI' section with a text input field containing 'http://creativecommons', a dropdown arrow, and a copy icon.

Windows release, really. Soon.



<http://banshee-project.org/download/development#windows>

Context Pane

Media Edit View Playback Tools Help

0:22 of 5:24 Jacksonville by Sufjan Stevens from Illinois

Search: Filter Results

Music Library

Now Playing
Play Queue
Music Library 838
Creative Co... 14
Favorites 26
Unrated 812
Video Library 41
Podcasts
Last.fm
Radio 26

All Artists (52)
A Perfect Circle
Beastie Boys
Ben Folds
Bloc Party

All Albums (69)
03>98 *Volta do Mar*
Abbey Road *The Beatles*
All of a Sudden I Mis...

	Artist	Album	Name	Time
8	Strangefolk	Lore	Rather Go Fishin'	3:49
9	Strangefolk	Lore	Woman Child	4:24
10	Strangefolk	Lore	Poland	4:54
11	Strangefolk	Lore	Far From Yourself	10:19
1	Sufjan Stevens	Illinois	Concerning The UF...	2:09
2	Sufjan Stevens	Illinois	The Black Hawk War	2:14
3	Sufjan Stevens	Illinois	Come On! Feel Th...	6:45
4	Sufjan Stevens	Illinois	John Wayne Gacy, Jr.	3:19
5	Sufjan Stevens	Illinois	Jacksonville	5:24
6	Sufjan Stevens	Illinois	A Short Reprise Fo...	0:47
7	Sufjan Stevens	Illinois	Decatur, Or, Roun...	3:03
8	Sufjan Stevens	Illinois	One Last "Whoo-h...	0:06

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Sufjan Stevens

From Wikipedia, the free encyclopedia

Sufjan Stevens (pronounced /ˈsuːfjɑːn/, born July 1, 1975) is an American [singer-songwriter](#) and [musician](#) born in [Detroit, Michigan](#). Stevens first began releasing his music on the [Asthmatic](#)

Sufjan Stevens

838 items - 2.3 days - 4.3 GB [Repeat All](#)

Context Pane

Media Edit View Playback Tools Help

1:15 of 5:24

Jacksonville
by Sufjan Stevens from Illinois

Search:

Filter Results

Now Playing

Play Queue

Music Library 838

Creative Co... 14

Favorites 26

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All Artists (52)

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Sufjan Stevens

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Sufjan Stevens (pronounced /ˈsuːfjɑːn/, born July 1, 1975) is an American [singer-songwriter](#) and [musician](#) born in [Detroit, Michigan](#). Stevens first began releasing his music on the [Asthmatic Kitty](#) label, a label he formed with his stepfather, beginning with the 2000 release *A Sun Came*. He is best known for his 2005 album *Illinois*, which hit number one in the [Billboard Top Heatseekers](#) chart, and for the song "Chicago".

Stevens has released albums of varying styles, from the [electronica](#) of *Enjoy Your Rabbit* and the [lo-fi folk](#) of *Seven Swans* to the symphonic instrumentation of *Illinois* and [Christmas](#)-themed

Sufjan Stevens



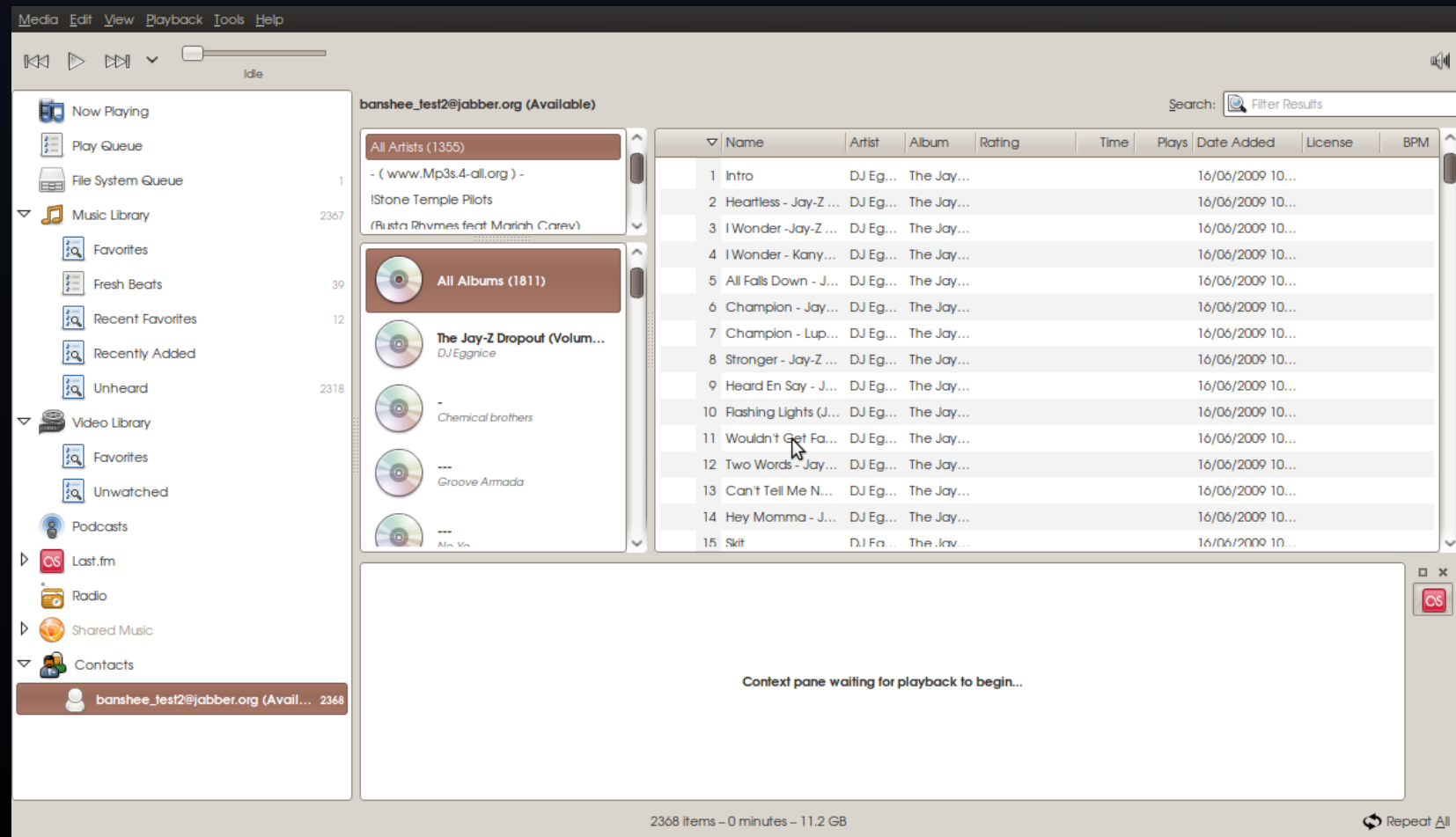
Stevens in concert at the Pabst Theater in 2006.

838 items - 2.3 days - 4.3 GB

Repeat All

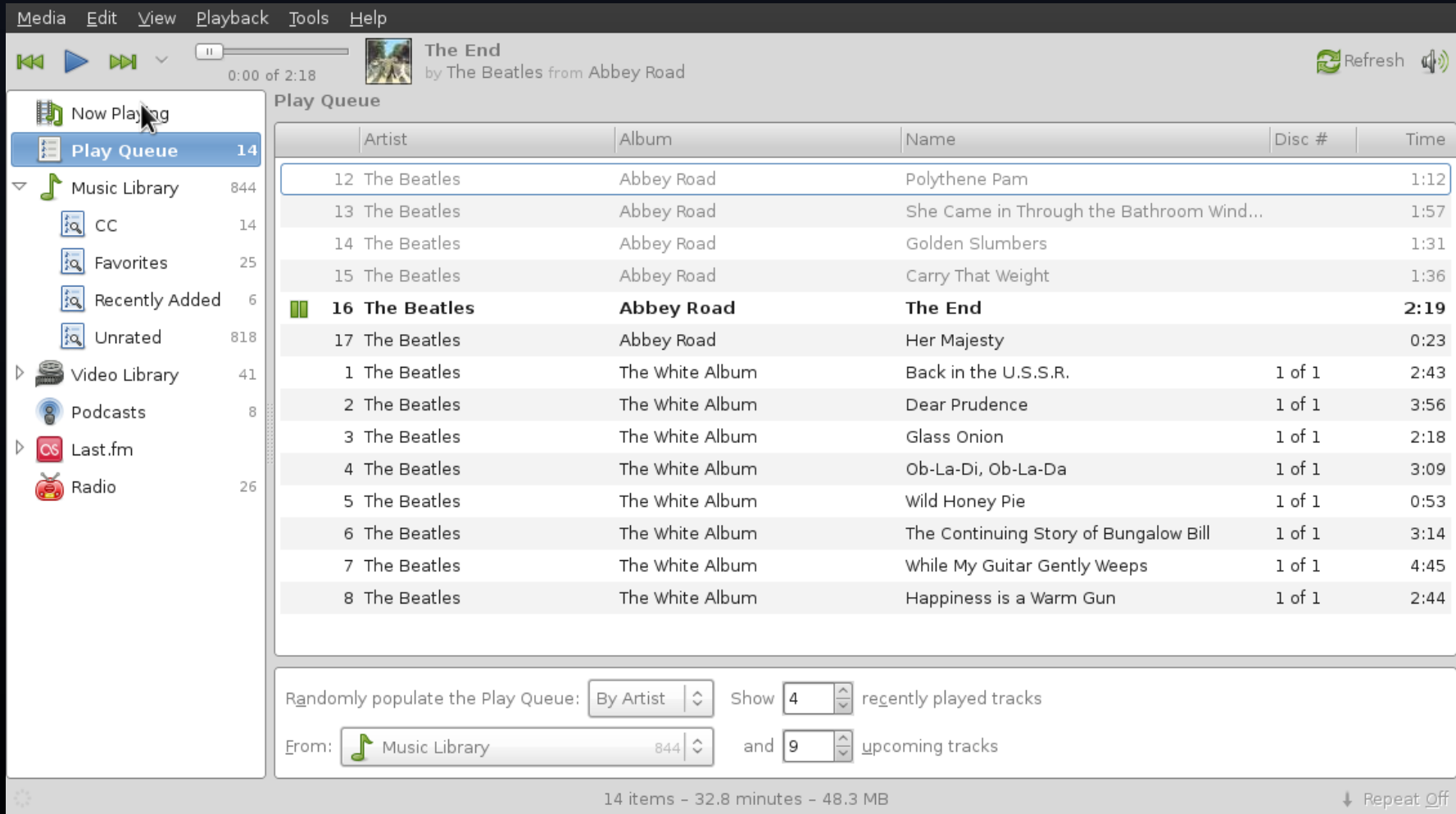
**And now, slides of stuff
that *may* make 1.6, but
will definitely be in 2.0**

Music sharing with Telepathy



GNOME GSoC 2009: Neil Loknath

Partying with Play Queue



The screenshot shows the iTunes application window. The top menu bar includes Media, Edit, View, Playback, Tools, and Help. Below the menu bar is a playback control area with buttons for previous, play/pause, and next, along with a progress slider showing 0:00 of 2:18. The current track is 'The End' by The Beatles from Abbey Road. On the left sidebar, the 'Now Playing' and 'Play Queue' sections are visible. The 'Play Queue' section shows a list of 14 tracks. The tracks are as follows:

	Artist	Album	Name	Disc #	Time
12	The Beatles	Abbey Road	Polythene Pam		1:12
13	The Beatles	Abbey Road	She Came in Through the Bathroom Wind...		1:57
14	The Beatles	Abbey Road	Golden Slumbers		1:31
15	The Beatles	Abbey Road	Carry That Weight		1:36
16	The Beatles	Abbey Road	The End		2:19
17	The Beatles	Abbey Road	Her Majesty		0:23
1	The Beatles	The White Album	Back in the U.S.S.R.	1 of 1	2:43
2	The Beatles	The White Album	Dear Prudence	1 of 1	3:56
3	The Beatles	The White Album	Glass Onion	1 of 1	2:18
4	The Beatles	The White Album	Ob-La-Di, Ob-La-Da	1 of 1	3:09
5	The Beatles	The White Album	Wild Honey Pie	1 of 1	0:53
6	The Beatles	The White Album	The Continuing Story of Bungalow Bill	1 of 1	3:14
7	The Beatles	The White Album	While My Guitar Gently Weeps	1 of 1	4:45
8	The Beatles	The White Album	Happiness is a Warm Gun	1 of 1	2:44

Below the queue list, there are controls to 'Randomly populate the Play Queue'. The dropdown menu is set to 'By Artist', and the 'Show' dropdown is set to '4'. The 'From' dropdown is set to 'Music Library' (844 items), and the 'and' dropdown is set to '9' upcoming tracks. At the bottom, it shows '14 items - 32.8 minutes - 48.3 MB' and a 'Repeat Off' button.

BGO bug #565767, try it out, give some feedback!

Accessibility: polishing an invisible user interface

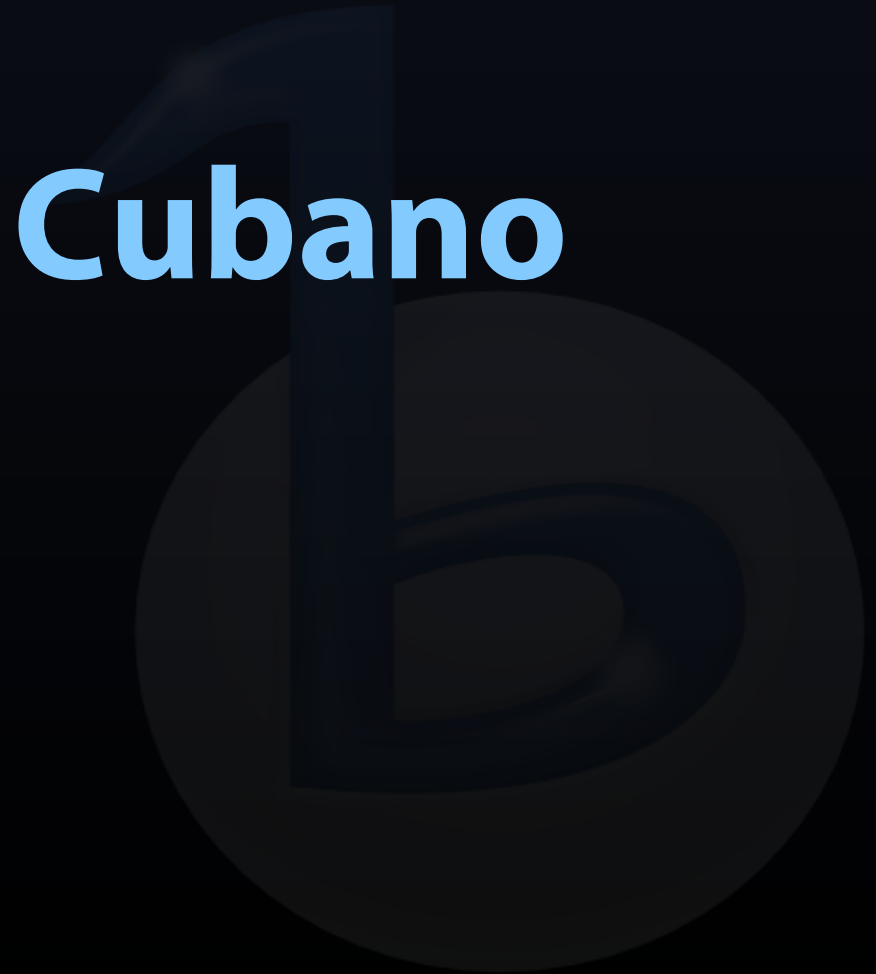
- ♦ Exposing context data properly on standard GTK+ widgets in the Banshee UI
- ♦ Little things that can be fixed by using tools like Accerciser
- ♦ Some work being done by a 11y super-star, Mike Gorse
- ♦ We really need a lot of community push here! Banshee's main UI elements are entirely *“owner drawn”*

Accessibility: using Atk# for our awesome custom widgetry

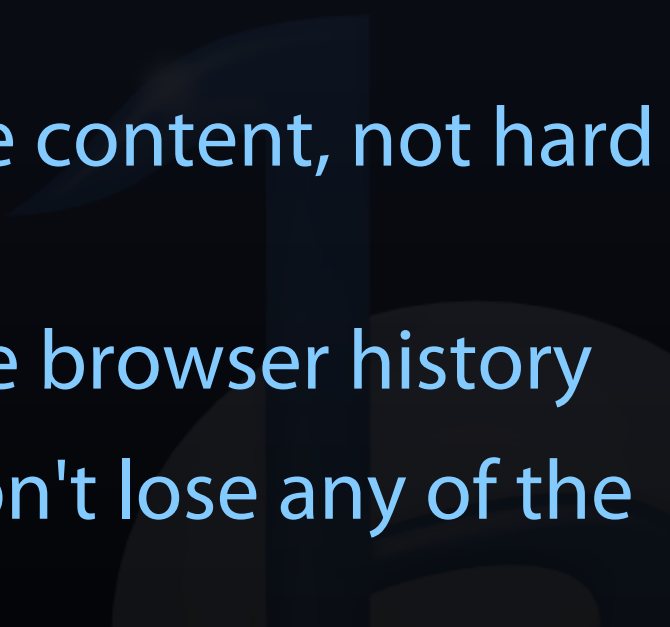
```
public class RatingAccessible
    : Atk.Object, Atk.Value, Atk.ValueImplementor
{
    ...
}

internal class RatingAccessibleFactory
    : Atk.ObjectFactory
{
    public static void Init ()
    {
        Atk.Global.DefaultRegistry.SetFactoryType (
            (Glib.GType)typeof (RatingEntry),
            (Glib.GType)typeof (RatingAccessibleFactory));
    }
    ...
}
```

Introducing Cubano



It's for Netbooks. And Desktops...

- ♦ Cubano is designed to work on a smaller screen
 - ♦ With a clean, concise UI
 - ♦ Using whitespace to separate content, not hard toolkit lines
 - ♦ Sources can be navigated like browser history
 - ♦ Even with minimal UI, you don't lose any of the power you may be used to
- 

Cubano focuses on simple

The screenshot displays the Cubano music player interface. At the top, there is a control bar with a 'Repeat Off' button, a search bar, and 'Import', 'Save', and 'Close' icons. The main area is divided into three sections: a left sidebar with a scrollable list of album titles, a central album cover carousel, and a right playlist panel.

Left Sidebar (Albums):

- August Burns Red
- Avenged Sevenfold
- Barenaked Ladies
- Ben Folds Five
- Between Home & Serenity
- Between the Buried and Me
- Black My Heart
- Blessid Union Of Souls
- Brand New
- Breaking Benjamin
- Brett Dennen
- Bright Eyes
- Bury Your Dead
- Cherry Poppin' Daddies
- Chiodos
- Circle Takes Square

Central Album Carousel:

- Alaska** - *Between the Buried and Me*
- Allegiance** - *As Blood Runs Black*
- All's Well That Ends Well** - *Chiodos*
- As The Roots Undo** - *Circle Takes Square*
- Awaken The Dreamers** - *All Shall Perish*
- Be Here Now** - *Oasis*
- Before The Devil** - *Black My Heart*
- Believe**

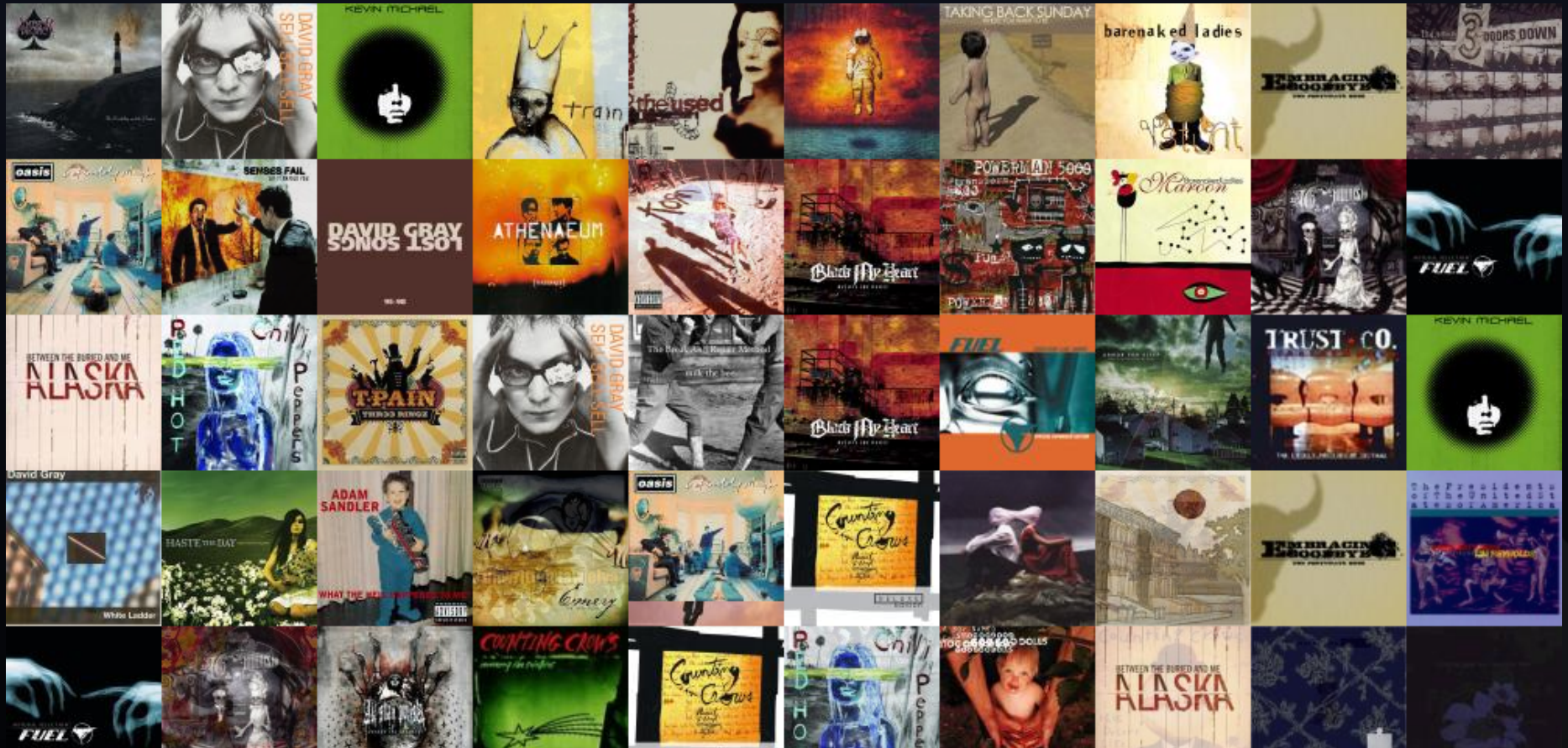
Right Playlist Panel:

- 1 Intro ★★★★★
- 2 In Dying Days
- ▶ 3 My Fears Have Become P... ★★★★★
- 4 Hester Prynne ★★
- 5 Pouring Regn
- 6 Brighter Side Of Suffering
- 7 Beautiful Mistake
- 8 Strife (Chug Chug)
- 9 Beneath The Surface ★★★★★
- 10 Legends Never Die
- 1 94 Hours ★★★★★**
- 2 Falling Upon Deaf Ears
- 3 Forever
- 4 Collision
- 5 Distance Is Darkness ★★★★★☆☆

Bottom Player Bar:

- Navigation: Back, Home, Forward
- Library: Music Library (1758 items)
- Current Track: **Allegiance** (3:36 / -0:22)
- Controls: Play/Pause, Stop, Previous, Next, Volume

And it's colorful



Now Playing



And it's Banshee

- ♦ Banshee is designed to allow for separate client UIs
 - ♦ Nereid – the traditional Banshee UI (875 LOC)
 - ♦ Cubano – Netbook friendly UI (2400 LOC)
 - ♦ Muinshee – Port of the Muine UI to Banshee (800 LOC)
- ♦ Cubano is defining new UI elements that will move into the Banshee core platform

But I like the old UI!

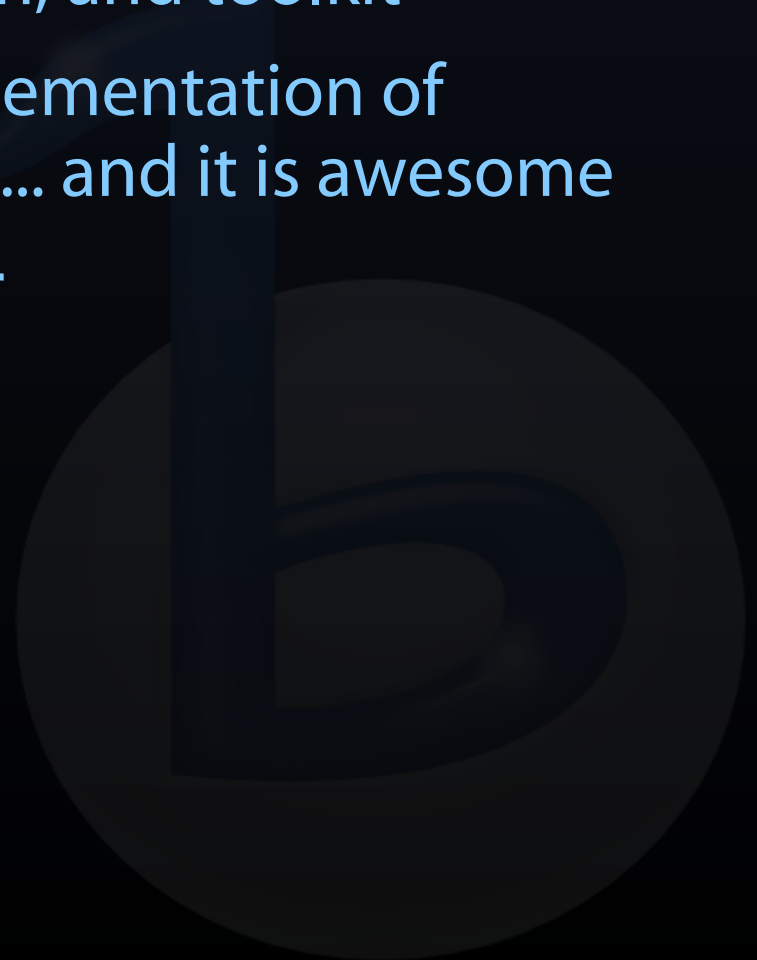
- ♦ So do we! It's not going away :-)
- ♦ Innovative features in Cubano will end up in Banshee proper, but adapted for the traditional UI
 - ♦ Clutter-based Now Playing
 - ♦ Redesigned track info display

Cubano Future

- ♦ Lots of UI work still going on, it's not finalized
 - ♦ That painful combo box will go away, don't worry
 - ♦ We're working on a grid view for artists and albums
 - ♦ I don't care for the header either
 - ♦ Any thoughts? Now is the time to speak up!
- ♦ First release before the end of August
 - ♦ Code will move into the Banshee git tree as well
 - ♦ Currently in github.com/abock/cubano

Cubano ... Moonlight

- ♦ Long term goal is to write the UI in Moonlight
 - ♦ Declarative UI canvas, scene graph, and toolkit
 - ♦ Moonlight is an open source implementation of Microsoft's Silverlight technology... and it is awesome
- ♦ Now Playing will still use Clutter



Is everyone seated?

You're going to want to be seated for this part. I hope.

A rope walks into a bar...

**So two muffins are
sitting in an oven...**

Celine Dion walks into
a bar. The bartender says,
"So, why the long face?"

Banshee is going to do photos

- ♦ What?
- ♦ Yep. We're adding the data-fundamentals for photo management to the Banshee platform
- ♦ And adding a Photos source to Banshee
 - ♦ Remember that grid view I said we were writing?
- ♦ We do video... why not photos?

Uh, what about **F-Spot**?

- ♦ Well you know how I've been calling Banshee a platform? And saying buzzy things like “Client UI”?
- ♦ We're re-basing the F-Spot core on top of Banshee
 - ♦ And F-Spot will be just another Banshee client
- ♦ This will allow the F-Spot UI to evolve into a more serious or professional photo tool. Think Adobe Lightroom.
- ♦ Most users will be happy with the basic management we're introducing in the traditional Banshee UIs.

A **skeleton walks into a
bar and says, "Gimme a
beer, and a mop."**



getbanshee.org / gnome.org / mono-project.com