

Songbird

Integrating Media & The Web



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Songbird in One Slide

- Cross platform media player
- Built on Mozilla
- Customizable
 - Extensions
 - Skins Feathers
- Open APIs
 - Client side via extensions
 - Web side via Webpage API
- Desktop client, NOT a service





Mozilla FTW!

Songbird

Library

Downloads

Concerts (973)

Radio

Last.fm

SHOUTcast

Favorite Stations

Stores

7digital Music Store

Playlists

Highest Rated

Most Played

Recently Added

Recently Played

Artists on Tour

Bookmarks

☒ Songbird Add-ons

☒ Songbird Help

☒ The Hype Machine

Genre (7 items)

All

Alternative

Alternative Rock

Classic Rock

New Age

Pop

Artist (12 items)

All

3 Doors Down

ABBA

Ace of Base

Black Eyed Peas

The Cure

Album (12 items)

All

3 Doors Down

Abba Gold

Away from the Sun

The Better Life

The E.N.D. (The Energy Never Dies)

Search Library

Title	Time	Artist	Album	Genre	Rating
Live for Today	3:47	3 Doors Down	Seventeen Days	Rock	★★★★★
My World	3:00	3 Doors Down	Seventeen Days	Rock	★★★★★
Here by Me	3:47	3 Doors Down	Seventeen Days	Rock	★★★★★
Dancing Queen	3:52	ABBA	Abba Gold	Pop	★★★★★
Knowing Me, Knowing You	4:02	ABBA	Abba Gold	Pop	★★★★★
Take A Chance On Me	4:04	ABBA	Abba Gold	Pop	★★★★★
Mamma Mia	3:33	ABBA	Abba Gold	Pop	★★★★★
Lay All Your Love On Me	4:34	ABBA	Abba Gold	Pop	★★★★★
Super Trouper	4:14	ABBA	Abba Gold	Pop	★★★★★
I Have A Dream	4:44	ABBA	Abba Gold	Pop	★★★★★
The Winner Takes It All	4:55	ABBA	Abba Gold	Pop	★★★★★
Money, Money, Money	3:08	ABBA	Abba Gold	Pop	★★★★★
SOS	3:21	ABBA	Abba Gold	Pop	★★★★★
Chiquitita	5:26	ABBA	Abba Gold	Pop	★★★★★
Fernando	4:13	ABBA	Abba Gold	Pop	★★★★★

Now Selected

Artist Info

Reviews

News

Photos

Videos

ABBA

GOLD

GREATEST HITS

Artist Bio

The ABBA story began in June 1966 when [Björn Ulvæus](#) (born 1945) met [Benny Andersson](#) (born 1946) for the first time. Björn was a member of the [Hootenanny Singers](#), a very popular folk music group, while Benny played keyboards in Sweden's biggest pop group of the 1960s, the [Hep Stars](#).

The pair wrote their first song together later that year, and by the end of the decade they had established a regular partnership as composers. By that time, Benny had left The Hep Stars, while the Hootenanny Singers

[Read More](#)

Discography

188 items

1:32

5:26

Chiquitita • ABBA • Abba Gold

7:35

2:36

Remember these?





AOL



(The Internet)

“mashup”

Mashup (digital)

- ▶ a digital media file containing any or all of text, graphics, audio, video, and animation, which recombines and modifies existing digital works to create a derivative work.

Mashup (web application hybrid)

- ▶ a web application that combines data and/or functionality from more than one source

from Wikipedia

<http://en.wikipedia.org/wiki/Mashup>

(so it must be true!)



Songbird is ~~neither~~ both





2 styles for 2 types

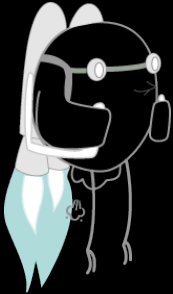
Client side development: Extensions

Web development: Webpage API



Extensions

- Just like Firefox
- Can be easily ported (in most cases)
- Many Firefox extensions already support Songbird
- Easily integrate with the web:
 - Pull in web content
 - Push content up to the web



Mozilla Technologies & APIs

(aka the buzzword & acronym slide)

AJAX, Canvas, CSS, DOM, E4X, HTML, JS, RDF
RSS, SVG, XBL, XML, XPath, XSLT, XUL

SpiderMonkey, Gecko, XULRunner



What can I do with it?

Pros: Pretty much anything

Cons: Pretty much anything



Media Interaction

- APIs for querying metadata
- Controlling playback
- Creating local and remote media items
- Creating playlists
- Observers/listeners



Songbird Points of Integration

Display Panes
Media Views
Faceplate
Browser Areas



Demo Time!

(sorry for anyone viewing the PDF)
just imagine a really compelling and cool demo
(and then imagine me delivering it)



Webpage API

- Javascript'able interactions with Songbird
- Integrate into user's media player
- Build your site, not a media player
- Observe and interact with Songbird's media functionality

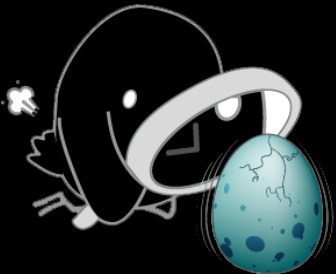


What can I do with it?

- Query what's currently playing
- Attach asynchronous listeners/observers to media player actions
- Enumerate and observe user library
- Build site-local libraries and playlists



Find out what your users like
Find out what your users hate



```

var propArtist = "http://songbirdnest.com/data/1.0#artistName";
var listener = {
    onEnumerationBegin: function() {
        this.artists = new Object();
    },
    onEnumeratedItem: function(list, item) {
        var artistName = item.getProperty(propArtist);
        if ((artistName != null) && (artistName != '')
            && (artistName != '\"\"')) {
            if (this.artists[artistName])
                this.artists[artistName]++;
            else
                this.artists[artistName] = 1;
        }
    },
    onEnumerationEnd: function() { }
};

var mainlib = songbird.mainLibrary;
songbird.mainLibrary.enumerateAllItems(listener, 0);
for (artist in listener.artists) {
    alert("You have " + this.artists[artist] + " tracks by " + artist);
}

```



Serendipitous discovery

(a.k.a. it's all about me, it's all about now)



What's happening right this minute

Metadata on the currently playing track:

- `songbird.currentArtist`
- `songbird.currentTrack`
- `songbird.currentAlbum`

Current activity and state:

- `songbird.playing`
- `songbird.paused`
- `songbird.repeat`
- `songbird.shuffle`
- `songbird.position`
- `songbird.volume`
- `songbird.mute`

Synchronous and asynchronous observers



```
var obs = {  
  observe: function ( aSubject, aTopic, aData) {  
    if (aTopic == "metadata.artist") {  
      alert("Current artist:" + aData);  
    } else if (aTopic == "metadata.album") {  
      alert("Current album:" + aData);  
    } else if (aTopic == "metadata.title") {  
      alert("Current track:" + aData);  
    }  
  }  
}
```

```
songbird.addListener("metadata.title", obs);  
songbird.addListener("metadata.artist", obs);  
songbird.addListener("metadata.album", obs);
```



List & Library Integration

- Use lists to represent playlists, or conceptual lists:
 - Shopping cart
 - Favourite songs/tracks
 - Recommended tracks (“You might also like...”)
 - Relevant songs (“Other people who bought also bought...”)
- Playback main library (e.g. the user’s) lists
- Playback site library (e.g. local to the website) lists
 - Remote playlists, e.g. .m3u, .pls
 - Playlists built programmatically using the Webpage API



List & Library Integration

```
// Create a default site-specific library
var library = songbird.siteLibrary;

// Set the scope of the site library
songbird.setSiteScope("whacked.net", "/music");

// Create a media item and put it in the library
var mediaItem = library.createMediaItem("http://whacked.net/music/wired-01.mp3");

// Make a playlist
var mediaList = library.createSimpleMediaList("TheWiredCD");
mediaList.add(mediaItem);

// Let's be obnoxious and play it, whether the user requested it or not
songbird.playMediaList(mediaList);

// I'm sure the user loved it so much - let's integrate it into their library for them
songbird.downloadItem(mediaItem);
```



Thanks!

IRC:

- <irc://irc.mozilla.org/#songbird>

IRL:

- <http://www.mozilla.org/USA/California/San%20Francisco>

Lists/forums:

- <http://groups.google.com/group/songbird-dev>



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