

Add-on Audacity

How Extension Developers Pushed the Boundaries and had Fun doing it

Brian King
Briks Software and Mozdev

Noun

Singular

audacity

Plural

audacities

audacity (*plural* **audacities**)

1. Insolent boldness, especially when imprudent or unconventional.

2. Fearless, intrepid daring.

Source : [Wiktionary](#)

Pushing the Limits



Bringing Firefox and other Mozilla applications to new places.

[Image source](#)

In The Beginning*

*(*left blank on purpose)*

Netscape Extensions

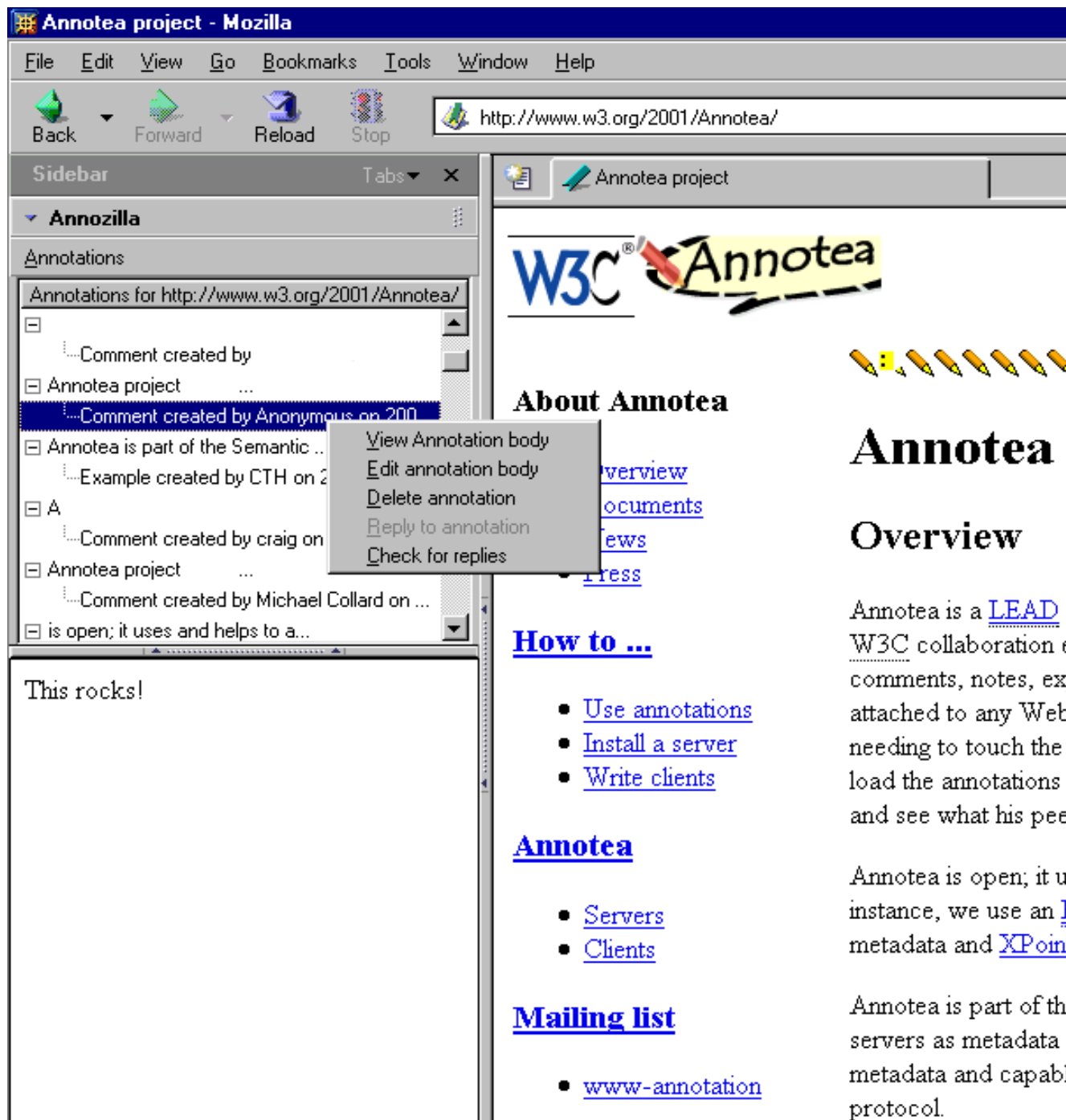
The screenshot displays the Netscape 6 browser interface. The title bar reads "Netscape.com - Netscape 6". The menu bar includes File, Edit, View, Search, Go, Bookmarks, Tasks, and Help. The address bar shows "http://www.netscape.net/". The sidebar on the left is titled "My Sidebar" and contains a search field, a list of tabs (Local startpage, Daily News - MozillaZine, Netscape.com, mozdev.org - multizill...), and a "Personal Toolbar Folder" with various items like "Mozilla Project", "Developer Information", and "Community".

The main content area features a "Welcome!" message with navigation buttons for Mail, Calendar, Instant Messenger, My Netscape, and Download. A search bar is present with the text "Search the Web" and a "Search" button. A prominent advertisement for "CHEAP FLIGHTS" is displayed, featuring a search box for "Chicago" and a "GO" button. Below this, there are several news and feature sections:

- Monday, September 3, 2001**
 - Labor Day**: Find a relaxing respite from the rat race this weekend with a complete guide to activities near you. Weekend Activities > Find Cheap Gas >
 - Poll**: Do you feel secure in your job? Yes No
 - Back to School Cool**: A complete online resource for students and parents. Complete Guide > Surviving the Transition > Celebrity I.Q. Photo Gallery >
- People.com**: 'Friends' and Family: Marital bliss for Cox, Kudrow and Aniston.
- LATEST NEWS**:
 - News: Scientists make blood from stem cells (from CNN.com)
 - Celebs: Anne Heche Marries
 - Tennis: Agassi, Capriati Advance
 - Computers: Avoid Virus Hell
- TOP PICKS**:
 - Do Biz Online
 - Love@Netscape
 - Netscape 6.1
 - Win a Walk-on
 - Your Horoscope
 - Yellow Pages
- WEATHER**: Enter ZIP or City
- SPECIAL OFFERS**:
 - Printing Frenzy: Find the Right Printer
 - Motorola AT&T: Prepaid Wireless
 - Labtec Axis-002 PC Headset \$24.95
 - Aspen, Colorado: 7th Night Free
- business & finance**:
 - Vacation**: Find the time and help you need to get away.
 - SMALL BUSINESS**: Netbusiness Poll: How do you plan to spend Labor Day? Travelling, Barbecue, Shopping.
 - PERSONAL FINANCE**: Back to School: How to pay for school at any grade level.
 - MARKET UPDATE**: Stock Quotes by Salomon Smith Barney. Symbol Lookup table with Dow and Nasdaq data.

The status bar at the bottom shows "Document: Done (1.242 secs)".

Mozilla Suite Extensions



The screenshot shows the Mozilla Suite browser window titled "Annotea project - Mozilla". The address bar displays "http://www.w3.org/2001/Annotea/". The browser interface includes a menu bar (File, Edit, View, Go, Bookmarks, Tools, Window, Help), navigation buttons (Back, Forward, Reload, Stop), and a sidebar on the left. The sidebar contains a "Annotations" panel for the current page, listing various annotations with a context menu open over one of them. The context menu options are: View Annotation body, Edit annotation body, Delete annotation, Reply to annotation, and Check for replies. The main content area displays the "Annotea" logo, a row of colored pencils, and sections for "About Annotea", "How to ...", "Annotea", and "Mailing list".

Annotations for http://www.w3.org/2001/Annotea/

- Comment created by ...
- Annotation project ...
- Comment created by Anonymous on 200...
- Annotation is part of the Semantic ...
- Example created by CTH on 2...
- A ...
- Comment created by craig on ...
- Annotation project ...
- Comment created by Michael Collard on ...
- is open; it uses and helps to a...

About Annotea

W3C[®] Annotea

Overview
Documents
News
Press

How to ...

- Use annotations
- Install a server
- Write clients

Annotea

- Servers
- Clients

Mailing list

- www-annotation

This rocks!

Annotea is a [LEAD](#) (W3C collaboration e-comments, notes, exp attached to any Web needing to touch the load the annotations : and see what his pee:

Annotea is open; it u: instance, we use an [F](#) metadata and [XPoint](#)

Annotea is part of the servers as metadata : metadata and capabl protocol.

install.js and XPInstall

API

- addFile
- addDirectory
- registerChrome
- ...

Flexible but verbose and not friendly to first-timers.

contents.rdf

Install Manifest for chrome registration and package metadata.

```
<RDF:Description about="urn:mozilla:skin:My_Theme"  
  chrome:displayName="My Theme"  
  chrome:accessKey="N"  
  chrome:author=""  
  chrome:authorURL=""  
  chrome:description=""  
  chrome:name="My_Theme"  
  chrome:image="preview.png">  
<chrome:packages>  
  <RDF:Seq about="urn:mozilla:skin:My_Theme:packages">
```

m/b -> phoenix -> Firebird -> Firefox

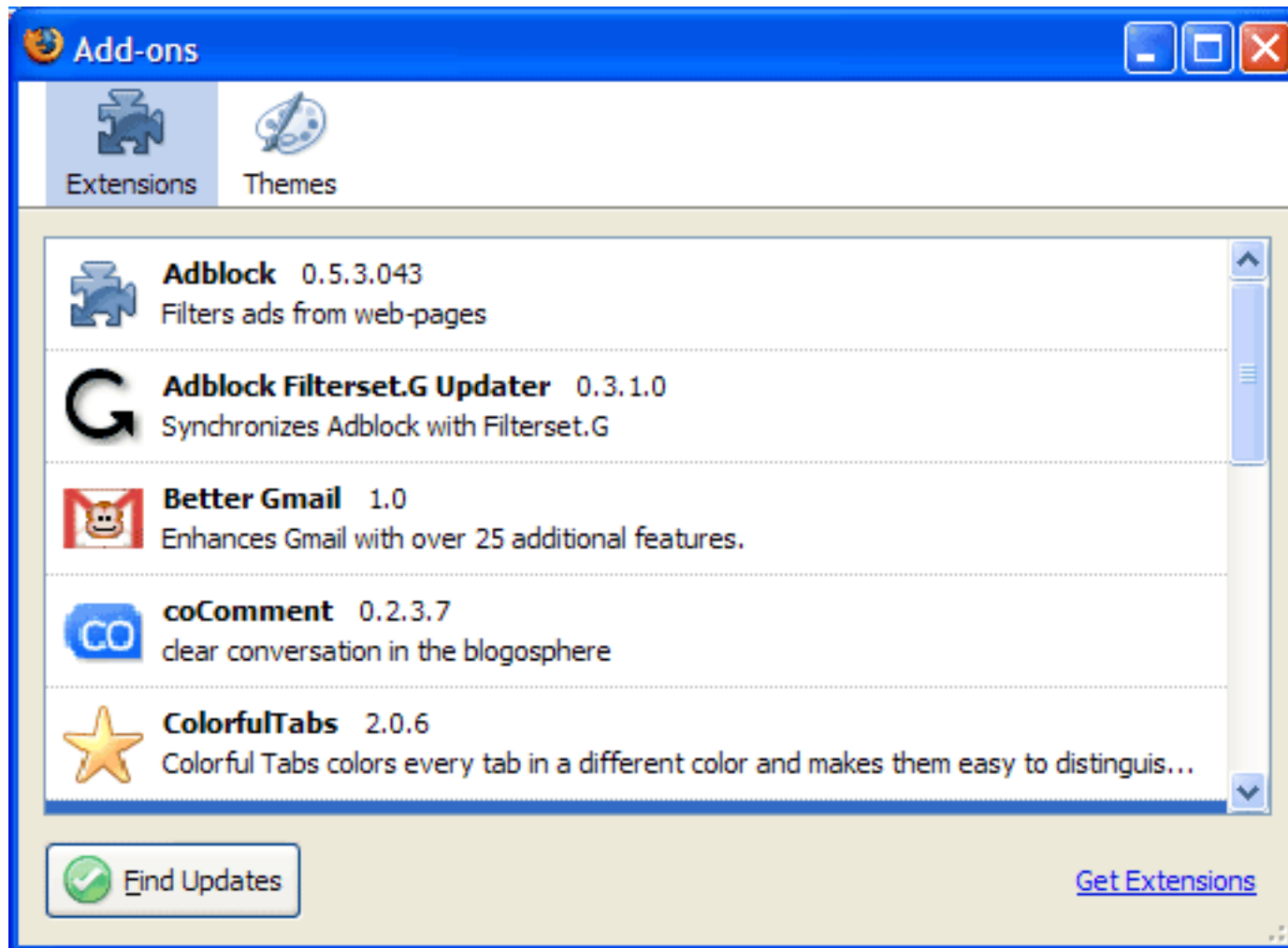
Separate the browser from the suite.

Stripped down user-friendly browser removing much of the bloat added by Netscape.

But wait....

What about extension developers?

Extension Manager



[Source](#)

install.rdf

Simpler than XPInstall API but less flexible

```
<em:id>myextension@mysite.com</em:id>
```

```
...
```

```
<em:targetApplication>
```

```
<Description>
```

```
<em:id>{ec8030f7-c20a-464f-9b0e-13a3a9e97384}</em:id>
```

```
<em:minVersion>2.0</em:minVersion>
```

```
<em:maxVersion>3.0.*</em:maxVersion>
```

```
</Description>
```

```
</em:targetApplication>
```

Freedom!

... to dream up and implement your own ideas

... to customise

... to innovate

... to extend

Power!

"With great power comes great responsibility"

aka

Don't delete all the files on your user's computer.

Fun!

Developers put together extensions to scratch an itch - the OSS way

Made new friends along the way (irc, mailing lists, and other developers forums)



Sacrifices

"So it's Saturday evening (I think), I am working on an extension, wife asks me if I wanted to do anything together and I reply, -Code review. And she says, OK. I think I fell of the chair."

- Mozdev Project Owner

Going Grippy

AKA How to make extension developers mad

- Remove Toolbar Grippies ([bug 112534](#)) - *"My reading today of the toolbars.xml shows grippies are gone. I PLEAD FOR SANITY. I PLEAD FOR STABILITY IN THE TOOLKIT."* - [comment 73](#)
- Security change in FF3 RC3 timeframe that hundreds of extensions - [bug 292789](#)

Leading the Way / Incubators

Multizilla - tabbed browsing.

Total Recall - a precursor for Session Restore

Googlebar

Forumzilla - feed reading in Thunderbird

... and [many more](#)

Strategic Asset for Mozilla

- Core to the Mozilla mission of “choice & innovation”
- Huge momentum versus Internet Explorer (200), Safari (100) and Opera (42)
- Platform for innovation and experimentation
- Many startups have made their bet with the Firefox user base as the entry point
- Major web properties have invested in building & distributing add-ons
- Customization is a key differentiator for Firefox and helps users feel like Firefox is “mine”

Vibrant Ecosystem of Startups



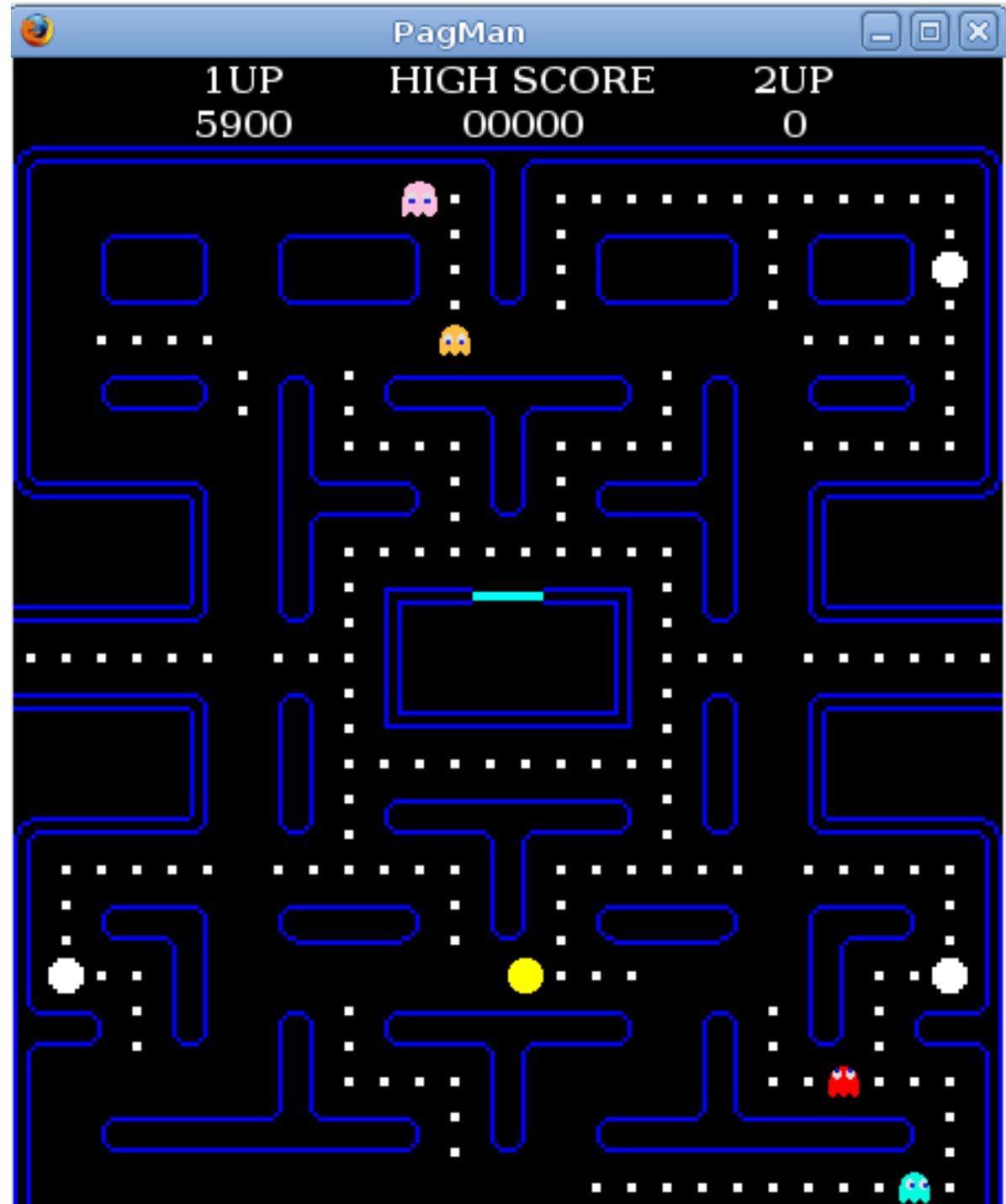
The Majors get in on the Act



Even Games

games.mozdev.org

(since 2002)



Other Consumers of the Extension Manager

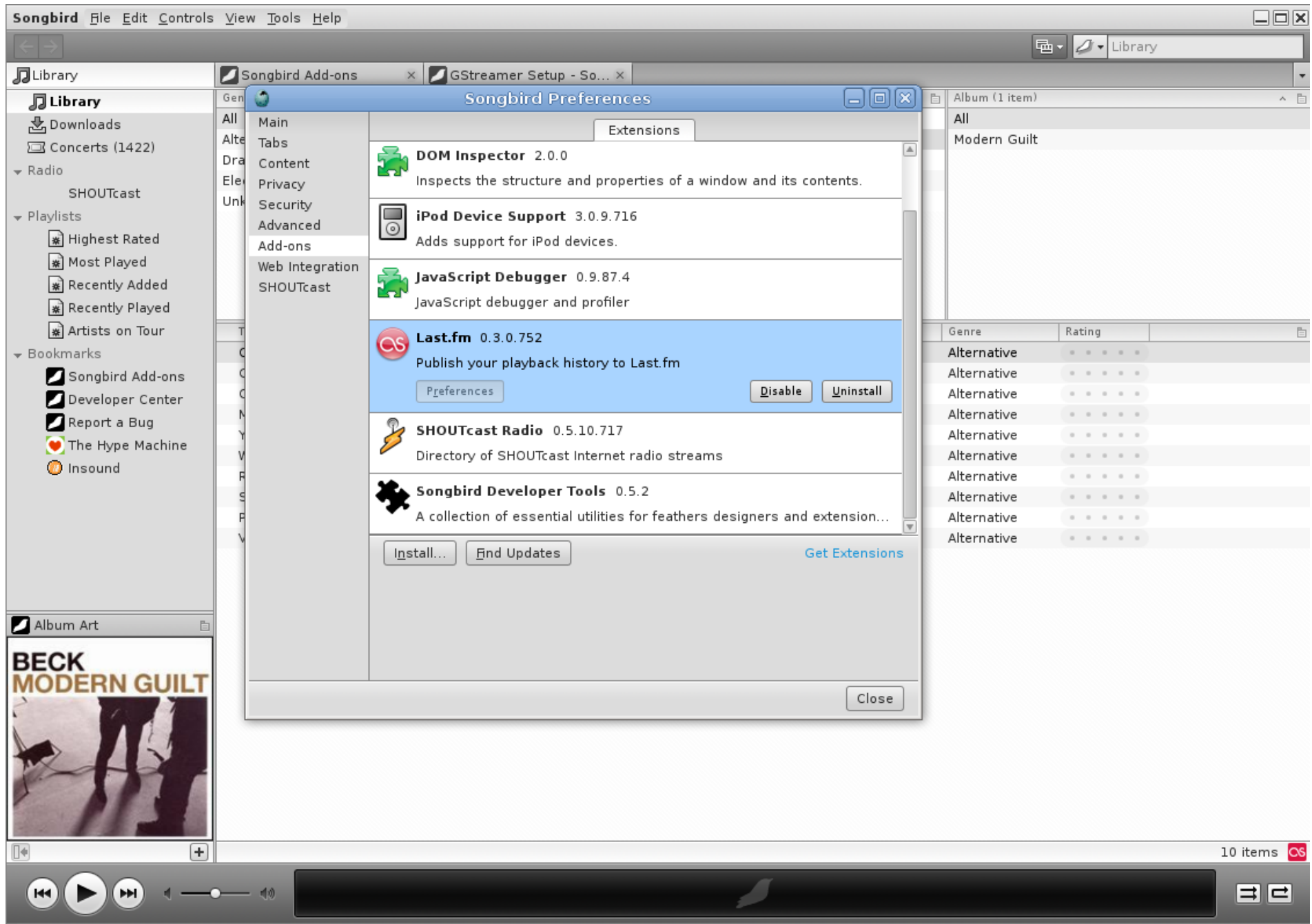
TomTom

The screenshot shows the TomTom HOME application window. The title bar reads "TomTom HOME" and the menu bar includes "File", "Device", "Tools", "Help", and "Debug". A "Log in" link is in the top right corner. The main content area is titled "Available extensions" with a puzzle piece icon. Below the title is a instruction: "Click 'Install' next to the extension you want to use in TomTom HOME." A table lists extensions, categorized into "Installed extensions" (2), "Disabled extensions" (1), and "Available extensions" (1). The "Available extensions" section shows the "MapShare Indicator" extension, which is "Tiny" in size and "Online" in location, with an "Install" button. At the bottom of the window are two buttons: "Back" and "Check for updates".

Name	Size	Location		
Installed extensions 2				
DOM Inspector Inspects the structure and properties of a window and its contents. More info...	0.7 MB	My Computer	Disable	Uninstall
Live HTTP headers View HTTP headers of a page and while browsing. More info...	0.1 MB	My Computer	Disable	Uninstall
Disabled extensions 1				
JavaScript Debugger JavaScript debugger and profiler More info...	0.9 MB	My Computer	Enable	Uninstall
Available extensions 1				
MapShare Indicator TomTom The Map Share status indicator will assist you in keeping your map up to date ... More info...	Tiny	Online	Install	

Back Check for updates

Songbird



eMusic

The screenshot displays the eMusic Remote web browser interface. The main window title is "eMusic Remote" and the address bar shows "http://www.emusic.com/promo/remote_demo/index.html?fref=".

Sidebar:

- DOWNLOAD MANAGER**
 - album view
 - track view
 - audiobooks view
- EMUSIC STORE**
 - home
 - browse
 - new
 - charts
 - magazine
 - audiobooks
 - save for later
- Tweetbar**
 - sign in!
 - twitter
 - what are you doing? (140)
 - Update
 - everyc friend friend followe
 - refresh: 1 min. [clear tweets]
 - tomaat, komkommer, tonijn, rucola, bleekselderij, pijnboompitten, mmmm
 - penny - about a minute ago

Add-ons Window:

- Extensions Themes
- Console Filter 0.3**
A text filter for the JavaScript/Error Console.
Buttons: Preferences, Disable, Uninstall
- DOM Inspector 1.8.1.2**
- tweetbar 1.0**
- Buttons: Install..., Find Updates, Get Extensions

Main Content Area:

- note experience.
- ownload from eMusic. and click 'Play' to
- eMusic Remote works as a web browser so you can browse the eMusic catalogue, post album and audiobook reviews and download music and audiobooks just like you would with Internet Explorer, Firefox or any other web browser. Click on the eMusic Store links to go directly to the main areas on eMusic.
- Media Library Sync**
eMusic Remote automatically copies your eMusic downloads directly to your media player. Click on 'Media Library Sync' to change your player settings at any time.

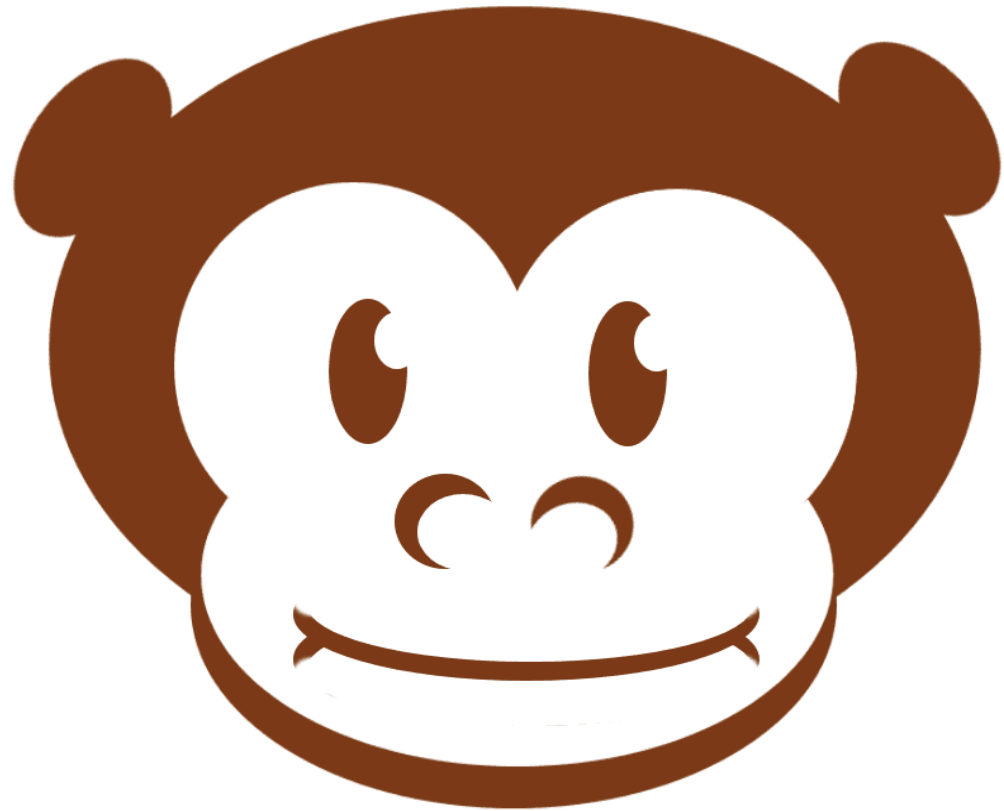
Footer:

- twitter is © 2007 obvious.
- tweetbar created by mike demers.

Diversions

User Scripts

The Cult of
Greasemonkey



XULRunner Applications

More Front-End Flexibility

More Build Voodoo

... more complex



[Image Source](#)

Where Are We Now?

AMO

- Over 1 million visitors per day, approximately 6-7M daily page views
- Site is available in 28 languages
- AMO add-on population:
 - 4800+ Extensions
 - 850+ Themes
 - 50+ Language Packs
 - 50+ Dictionaries
- Sizable number of add-ons not hosted on AMO
- Over 100M active daily add-on pings
- 10-20 blog/news articles daily reviewing or mentioning specific Firefox add-ons

Quality

In Firefox 2, extensions slowed down Firefox and gave it a bad name as a memory hog.

Not all ext. developer fault, but...

Better quality control on AMO where extension are reviewed thoroughly (bad UI, namespaced code, memory leaks, remote JS, ...)

AMO Features Roadmap

Goal	Q3 2008	Q4 2008	Q1 2009
Ease of Use (cf. Bugzilla)	<ul style="list-style-type: none">• Full-Text Search• Find-as-you-type• Revise FAQ	<ul style="list-style-type: none">• AMO for Firefox Mobile• Replace Vanilla forums	<ul style="list-style-type: none">• {TBD}
Find & Discover	<ul style="list-style-type: none">• Add-on & Feeds Sharing• Revised popularity algorithm	<ul style="list-style-type: none">• Add-on/Author Badges• New discovery: find add-ons by tag, function or site	<ul style="list-style-type: none">• Glimpse/add-on clustering• Favorite-ing• Add-on Recommender
Breadth	<ul style="list-style-type: none">• Support for search engines	<ul style="list-style-type: none">• Entries for non-AMO add-ons• PFS update	<ul style="list-style-type: none">• Support for add-on locale packs

AMO Features Roadmap (cntd.)

For...	Q3 2008	Q4 2008	Q1 2009
Add-on Devs	<ul style="list-style-type: none">• Revised Developer Tools• Developer Survey	<ul style="list-style-type: none">• Developer Stats API• CVS, MXR for public add-ons• Taggable library	<ul style="list-style-type: none">• Mini AMO on developer's site
AMO Editors & Localizers	<ul style="list-style-type: none">• XPI Version differ• Editor Leaderboard & Badges	<ul style="list-style-type: none">• Sandbox vs. Review Queue• Editor Tools revision• Pattern scanners• Metadata upload API	<ul style="list-style-type: none">• New L10n tools
Stats, Data & Infrastructure	<ul style="list-style-type: none">• New MoCo Add-ons dashboard• AMO performance release• Urchin 6 for web analytics	<ul style="list-style-type: none">• Public AMO Stats Dashboard	

Mozdev

mozdev.org

- Community run site providing free hosting for Mozilla applications and extensions since 2000
- Established as a non-profit organization in 2004
- Over 250 active projects today (Over 1800 total projects and several new projects started each week)
- Over 500 developers discussing issues on the project_owners@mozdev.org list
- Over 1/3 of Top 50 AMO add-ons hosted on mozdev or started there
- Over a dozen Mozilla-based applications have extensions under development on mozdev

What Next?

Less UI?

Simpler install manifest (not RDF)

More Web content interaction?

Faster Javascript (TraceMonkey)

THANK YOU!

Contact me - brian@mozdev.org

Credits:

Basil Hashem - for AMO related content

Mozdev project owners - for inspiration and input