

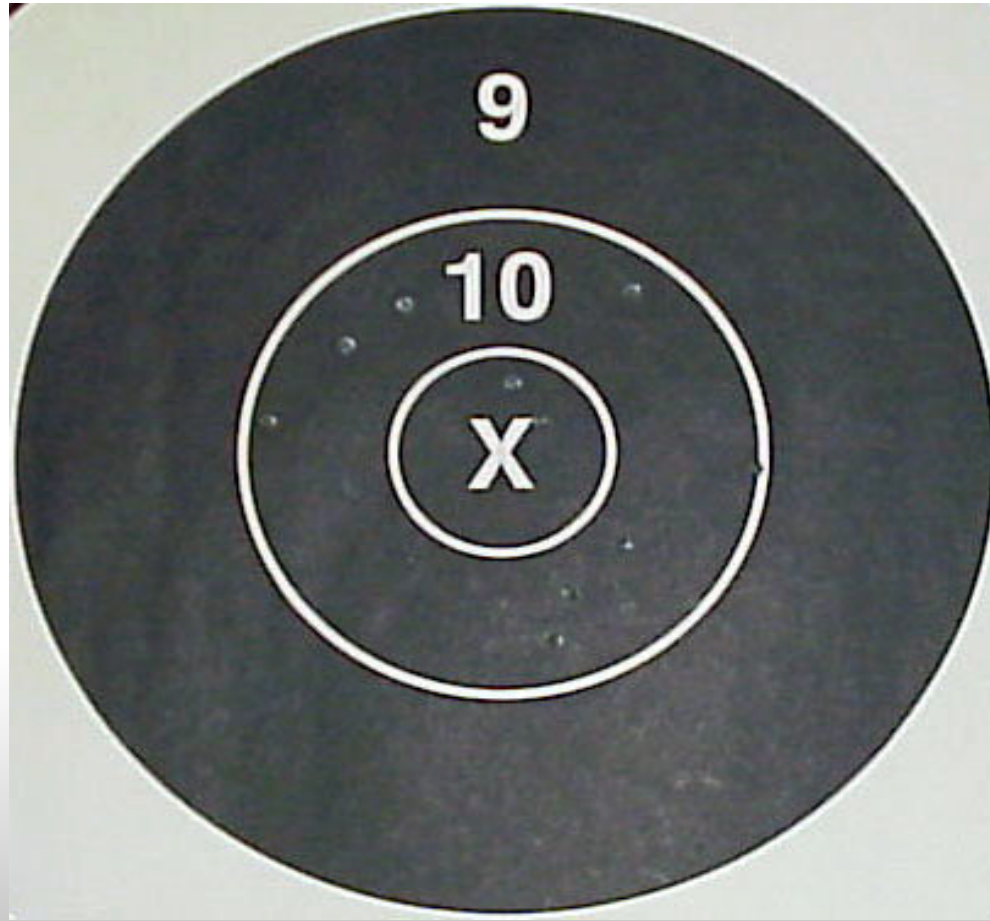
# Shrinking Add-ons

Porting to Firefox Mobile

Mozilla/Maemo Danish Weekend, Copenhagen -  
May 30 2009

# Target Application

It's more than just an install.rdf change!



Picture: <http://www.flickr.com/photos/wmode/1697207772/>

# Look, no phone!

Desktop build of Fennec are available

- Major releases only
- No nightlies yet
- Build your own

A Maemo virtual image for developing and running Maemo applications



Picture: <http://www.flickr.com/photos/darwinbell/522009553/>

# Stepping Back

- Does your add-on make sense in the mobile context?
- Does it use interfaces not available
- Performance, performance, performance
- How much does the UI need to change?

# Be an Early Adopter

- Not many add-ons for Fennec yet
- Documentation sparse (post what you learn!)
- Use the source

<http://mxr.mozilla.org>

# Different Structures

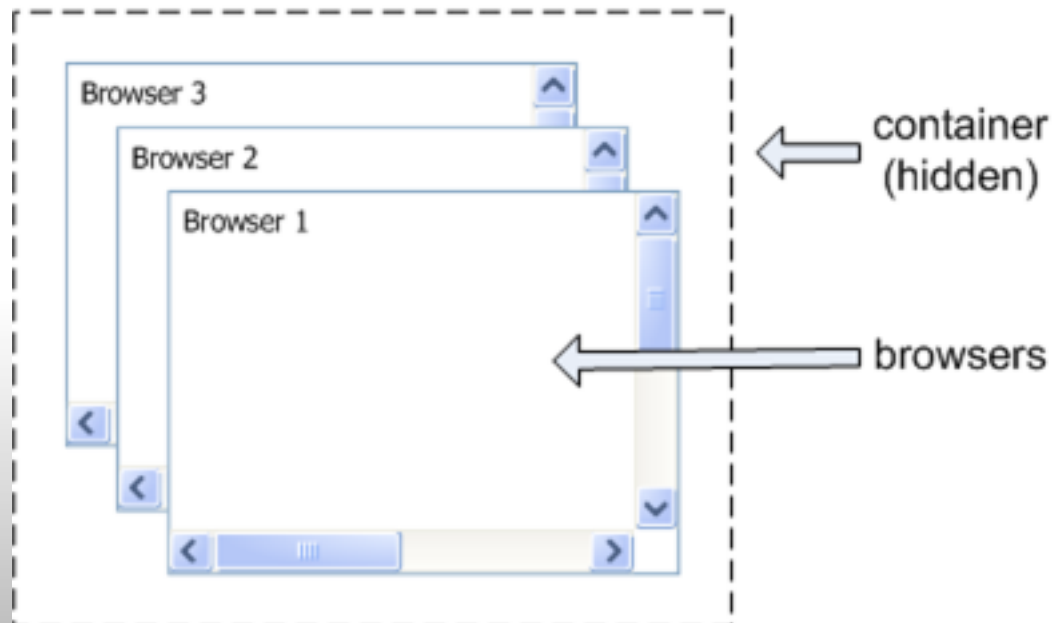
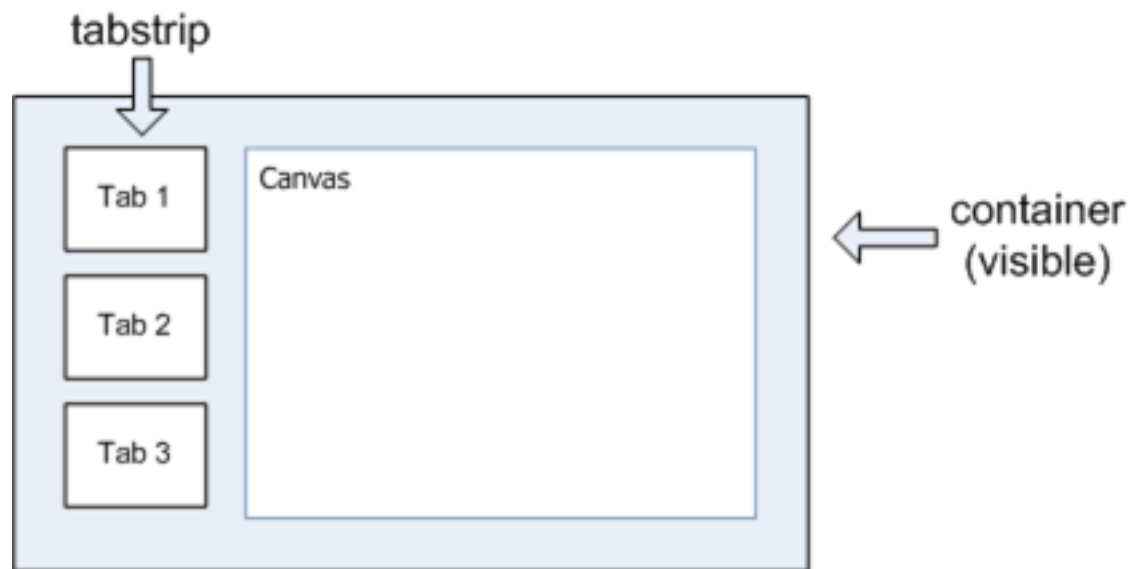
- chrome:// uris similar to Firefox Desktop
- some of the same overlay hooks exist, but...
- they may be in different places or contain different content (DOM)

Example:

- Navigation buttons
- URL Bar

# Display

- `<canvas>` is primary display surface
- `<browser>` elements are hidden
- `<browser>` draws into `<canvas>` as needed
- `<canvas>` redirects events to `<browser>`
- tabs are thumbnails of the web content



# UI Elements

- All UI elements live in a `<stack>`
- `<vbox>` is used in place of `<panel>` - e.g. awesomebar
- Toolstrips "glue" to sides of web content

# Panning

- WidgetStack is a JS object used to manage panning
- Special attributes on the XUL elements affect WidgetStack

Panning moves the **entire UI**. How does your UI fit into moving parts?

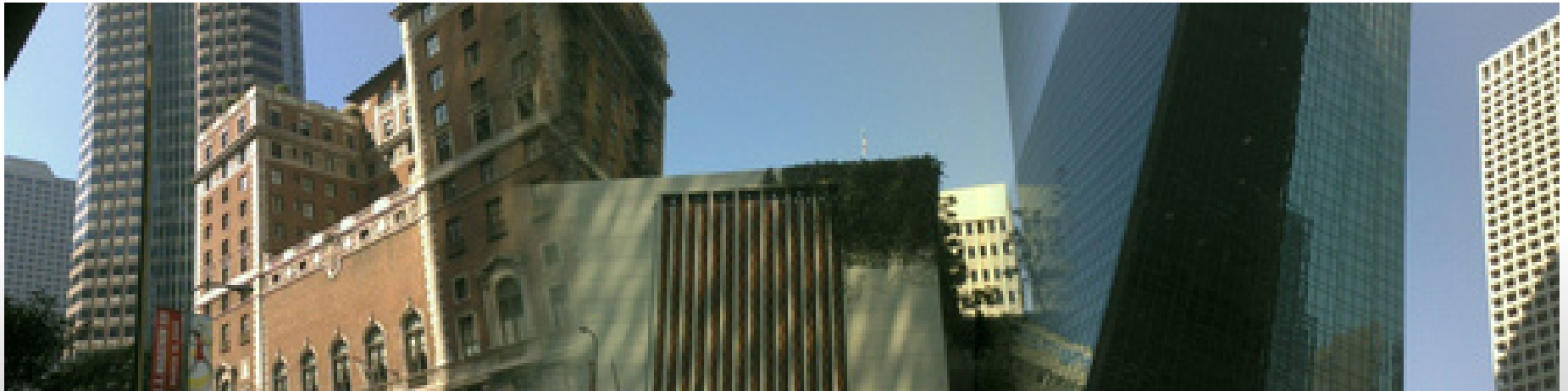


Photo: <http://www.flickr.com/photos/indiemer/103890275/>

# No Nos

Dialogs : Fennec has no dialogs of its own and is trying to eliminate platform dialogs

Context menus: Bad user experience, alternatives are being explored.

# Performance

Page Load - Anything happening in there is expensive ... try to delay your code.

XUL Panels - Can degrade the user experience, look for alternatives

Page Refresh - browser->canvas reload is expensive, avoid unnecessary reloads, e.g. XUL content in a tab.

File I/O - Avoid useless i/o.

# Deployment - Single XPI

Distributing Firefox Desktop and Fennec add-on in same XPI.

Fork files (e.g. in `chrome.manifest`)

or...

Fork code

```
var info = Components.classes["@mozilla.org/xre/app-info;1"]
    .getService(Components.interfaces.nsIXULAppInfo);
// Get the name of the application running us
info.name; // Returns "Fennec" for Fennec

if (info.name == "Fennec")
{
    ...
}
else
{
    ...
}
```

# Page Load

```
if (info.name == "Fennec")
{
    let browsers = document.getElementById("browsers");
    browsers.addEventListener("DOMContentLoaded", this.onPageLoad,
true);
}
else // Firefox desktop
{
    var appcontent = document.getElementById("appcontent");
    appcontent.addEventListener("DOMContentLoaded", this.
onPageLoad, true);
}
```

# Bugs - Flex

flex=1 on XUL elements in browser does not fit canvas which is sized differently

# Bug - Scrolling

Scrolling XUL content loaded in a browser is not working well -  
bug [460678](#).

# Tracking Bug

If you find other XUL issues in Fennec, please file a bug and add it to the tracking bug 492546.

*Develop an extension showing a xul page in BrowserCanvas*

[https://bugzilla.mozilla.org/show\\_bug.cgi?id=492546](https://bugzilla.mozilla.org/show_bug.cgi?id=492546)

Vivien Nicolas - Mozilla Europe

# Themes

*... intentionally blank!*

# Thanks!

Email me.

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