Dashboard Widget Development

Mario Aquino
mario@ociweb.com

I wanted to track my expenses & budget

(really, my wife wanted this)

Ahh, I'll write software!

We have Macs (2 laptops)

no iPhones :-(

I want to track

what my budget is
how much we spend
how much is left to spend
I want it to cycle
& I want it to be easy

Me: Aha! I'll write a Dashboard widget

What is a Dashboard widget?

- Vista has a similar thing
- Also Yahoo! desktop widgets...
- But what I wrote won't work for them :-p

Made of:

HTML
CSS
JavaScript
Pretty images
*Other stuff

Made with Dashcode (...meh)

I like that it has:

A debugger
Drag & drop UI components
i18n support
I can use TextMate from it
Dashcode editor is teh suck!
Files loaded in memory quirkiness

Widget lifecycle (events):

load (Called by HTML body element's onload)

widget callbacks:

show/hide

remove

*sync

Interaction events you can create:

showFront / showBack

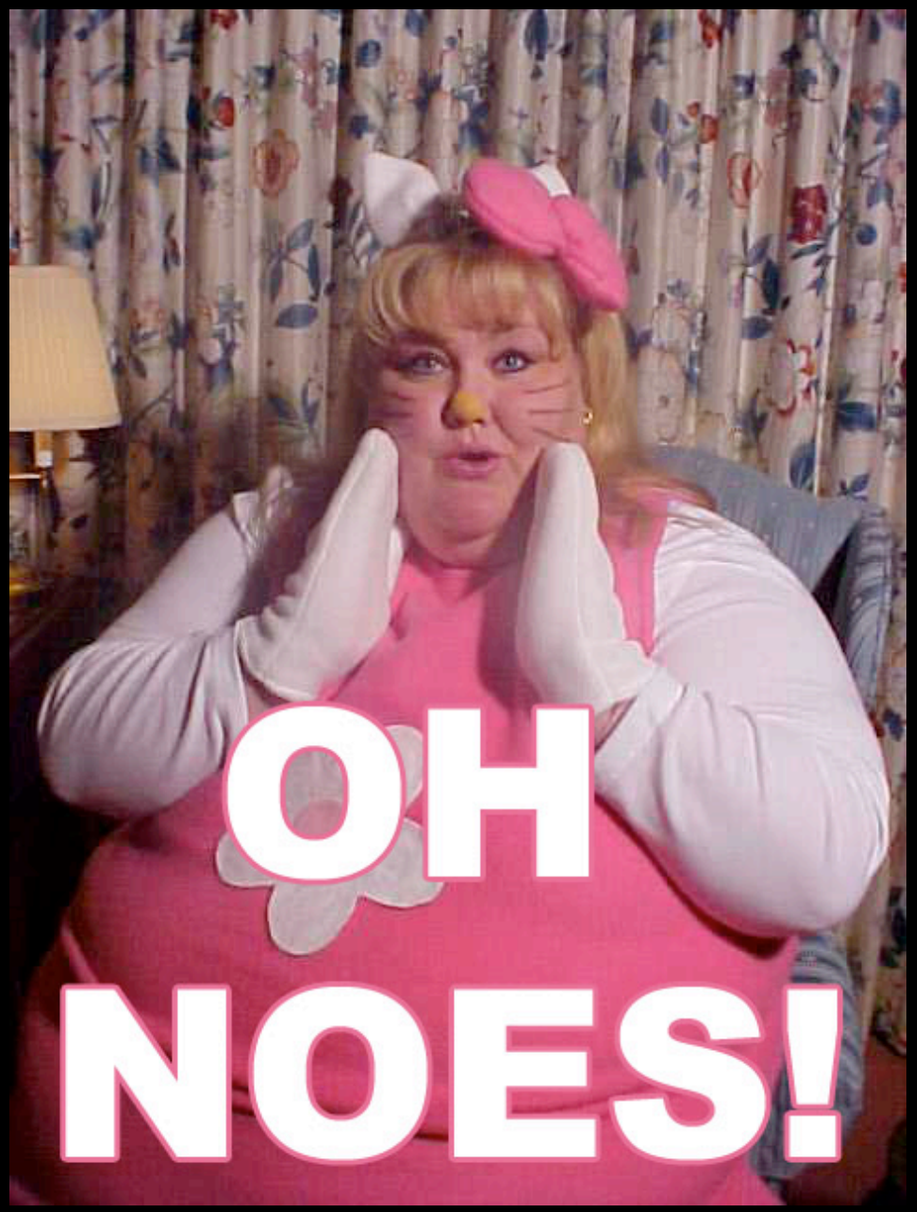
What I like about JavaScript:
You can totally mix-in stuff!

```
function CommandMonitor()
{
    this.timeOut = 300;
    this.restartAfter = 60;
}
CommandMonitor.prototype start = function() {...}
function BudgetMonitor() {...}
BudgetMonitor.prototype = new CommandMonitor();
```

It's dynamically typed!

*Other stuff (from previous slide)

My widget tracks data
Google spreadsheet FTW!



How to call from widget?!!?!

Dashboard widget JavaScript can call:

Objective-C plugins
Anything from the command line (Ruby!)

Using Ruby from Widget:

widget.system(call command line stuff here)
Returns object used to register output readers
Calls are asynchonous
Used Ruby gem to call Google Spreadsheets
Apple keychain to store Google credentials

What I like about Ruby... Where do I start?

My favorite part about this thingy:

```
def parse(lookup, pattern)
  $1 if lookup.find { |s| s =~ pattern }
end

def user_and_pass
  # Redirect stderr (where password is written to), to stdout
  lookup = `security 2>&1 find-generic-password -gs BudgetMinder`

  username_pattern = /^[\s]+"acct"<blob>="(.*)"$/
  password_pattern = /^password: "(.*)"$/

  username = parse lookup, username_pattern
  password = parse lookup, password_pattern
  [username, password]
end
```

OH NOES!
I GOT TEH
SHITS ON ME!

http://github.com/marioaquino/budgetminder/tree/master