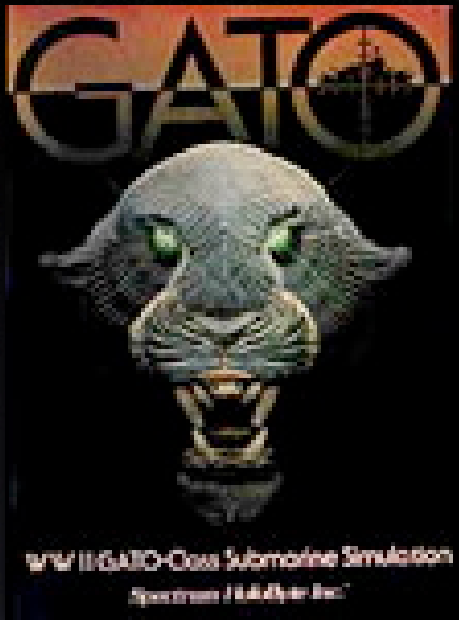




Prototyping the Rich Web Experience

Bill Scott
Yahoo! Ajax Evangelist
b.scott@yahoo.com

stuff i've done



stuff i've done



Rico

JavaScript for Rich Internet Applications

[Home](#) [Features](#) [Demos](#) [Documentation](#) [Downloads](#) [About](#)

An open-source JavaScript library for creating rich internet applications. Rico provides full Ajax support, drag and drop management and a cinematic effects library.

BACKGROUND

Rico is a Spanish word meaning *rich*. The goal of Rico is to provide a rich experience for web sites using Ajax technology.

Rico is just one small part of a larger effort at Sabre Airline Solutions to create a suite of rich internet components, behaviors and effects for the web application space.

The library is a fully object-oriented JavaScript library. Recently we refactored the library to extend the excellent [prototype.js](#) effort from the Ruby on Rails folks.

OPEN SOURCE

Rico is provided free and open-source ([Apache 2.0 License](#)) for either your personal or commercial use. [Sabre Airline Solutions](#) retains the copyright on the Rico code produced at Sabre.

BROWSER SUPPORT

Rico has been tested on IE 5.5, IE 6, Firefox 1.0x/Win, Camino/Mac, Firefox 1.0x/Mac. Currently there is no Safari or Mac IE 5.2 support. Support will be provided in a near future release for Safari.

AJAX SUPPORT

Ajax is the term that describes a set of web development techniques for creating interactive web applications. One of the key ingredients is the JavaScript object XMLHttpRequest. Rico provides a very simple interface for registering Ajax request handlers as well as HTML elements or JavaScript objects as Ajax response objects. Multiple elements and/or objects may be updated as the result of one Ajax request.

Want to get started learning? Check out our [demos](#) and then read our two Ajax tutorials on the [Documentation page](#).

DRAG AND DROP

Desktop applications have long used drag and drop in their interfaces to simplify user interaction. Rico provides one of the simplest interfaces for enabling your web application to support drag and drop. Just register any HTML element or JavaScript object as a draggable and any other HTML element or JavaScript object as a drop zone and Rico handles the rest.

CINEMATIC EFFECTS

When actions are no longer occurring just at the page level but within the page itself, more clues are required to clue the user on what has transpired. Cinematic effects such as scaling and smooth sliding transitions can communicate change in richer ways than traditional web applications have explored before. Rico provides several cinematic effects as well as some simple visual style effects in a very simple interface.

BEHAVIORS

Take some raw HTML and sprinkle in some behaviors and what do you get? Well in Rico you can get an [Accordion](#) component like those found in Macromedia Flex and Laszlo. Just nest some DIVs and with one line of JavaScript turn your div panels into an accordion. And the latest behavior is the LiveGrid. LiveGrid allows you to connect an HTML table up to a stream of Ajax responses. Ajax requests are automatically called during table scrolling. The result is now HTML tables can hold an unlimited amount of data scrolled into view on the fly as needed! More behaviors are planned!

NEW! LiveGrid Behavior!

Check out the Alternative to Paging!

The screenshot shows a search results page titled "RICO A JAZZ SEARCH". It features a search bar and a list of results. The results are displayed in a table with columns for "Item Name", "Description", and "Price". The table is scrollable, and the "LiveGrid" behavior is demonstrated by showing a large amount of data that is scrolled into view as the user scrolls down the page.

Current Conditions

77°F

Humidity: 70%
Dewpoint: 73.4°F
Wind: From SW at 8 mph
Pressure: 30.79
Heat Index: 87.9

See Rico in Action!

The screenshot shows a weather widget for Dallas, TX (75201). It displays the current temperature as 77°F. Below the temperature, there are several weather-related metrics: Humidity (70%), Dewpoint (73.4°F), Wind (From SW at 8 mph), Pressure (30.79), and Heat Index (87.9). The widget is styled with a blue background and white text.

stuff i've done



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JavaScript for Rich Internet Applications

Home Features Demos Documentation Downloads

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Ajax is the term that describes techniques for creating interactive web applications. Rico provides a very simple interface for handling Ajax requests and responses as well as HTML objects as Ajax response objects can be updated as they are received.

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DRAG AND DROP

Desktop applications have long used drag and drop to simplify user interfaces. Rico provides the simplest interfaces for enabling drag and drop. Just register a JavaScript object as a draggable and Rico handles the rest.

CINEMATIC EFFECTS

When actions are no longer required to clue the user on what transitions can communicate. Rico provides several cinematic effects as well as some simple visual style effects in a very simple interface.

BEHAVIORS

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The screenshot shows the Yahoo! Developer Network Design Pattern Library. The page has a navigation menu on the left with categories like 'USER NEEDS TO', 'EXPLORE DATA', 'ORGANIZE DATA', 'GIVE FEEDBACK', 'PERFORM ACTION', and 'CUSTOMIZE'. The main content area features a 'Welcome' message, a 'What's a Pattern?' section, and a grid of 'Recent Patterns' including examples like 'Auto-Complete', 'Breadcrumbs', 'Drag and Drop Modules', 'Module Tabs', 'Navigation Tabs', 'Object Pagination', 'Results Page', 'Search Pagination', 'Rating an Object', and 'Review Title'. Each pattern includes a brief description and a link to more information.



stuff i've done



Rico

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Home Features Demos Documentation Downloads

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AJAX SUPPORT

Ajax is the term that describes techniques for creating interactive web applications. The key ingredients is the JavaScript. Rico provides a very simple interface to request handlers as well as HTML objects as Ajax response objects. Objects may be updated as they are received. *Want to get started learning then read our two Ajax tutorials.*

DRAG AND DROP

Desktop applications have long used interfaces to simplify user interaction. Rico provides the simplest interfaces for enabling drag and drop. Just register a JavaScript object as a draggable and Rico handles the rest.

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The screenshot shows the Yahoo! Developer Network Design Pattern Library homepage. At the top, there's a navigation bar with 'Developer Network Home' and 'Help'. Below that is the 'YAHOO! DEVELOPER NETWORK' logo and the page title 'Design Pattern Library'. A sidebar on the left contains a 'USER NEEDS TO' menu with categories like 'NAVIGATE', 'EXPLORE DATA', 'ORGANIZE DATA', 'GIVE FEEDBACK', 'PERFORM ACTION', and 'CUSTOMIZE'. The main content area features a 'Welcome' message, a 'What's a Pattern?' section, and a 'Recent Patterns' grid. The grid includes items like 'Auto-Complete', 'Breadcrumbs', 'Drag and Drop Modules', 'Module Tabs', 'Navigation Tabs', 'Object Pagination', 'Results Page', 'Search Pagination', 'Rating an Object', and 'Review Title'. Each item has a small thumbnail image and a brief description. At the bottom, there's a 'See Rico in Action!' link with a small weather widget showing 'Dallas, TX (75201)' and '77°F'.

The screenshot shows the Yahoo! Gobbler Scratchpad interface. At the top, it says 'YAHOO! GOBBLER' with a search box. Below that is the 'Scratchpad' section, which includes a 'Add Website to Scratchpad' button and a 'Projects(3)' section. The projects listed are 'National Mapping - Fab Facts, Landforms' with a URL, 'Geography: Landfor...', and 'Civil War Battles'. Each project has a 'Add Website to Project' button and a 'Create a new Project' button at the bottom. There are also some decorative elements like a blue vertical bar on the right and a quote about metabolic activity.

prototyping

- Have been involved with prototyping for a number of years
- Last summer wrote a quick dragdrop proto library that was based on CSS class names and associating behavior to these classes ('dragme', 'drophere')
 - Goal was to make it easy for designers to start prototyping
 - However it was not possible to provide enough logic without resorting to writing code
 - Been planning to get back to the idea for a year.
- This got me thinking about simplifying the experience of prototyping with dhtml/ajax

what i really want



Bill Scott
Total Projects 12
Total Points 24

My Portfolio

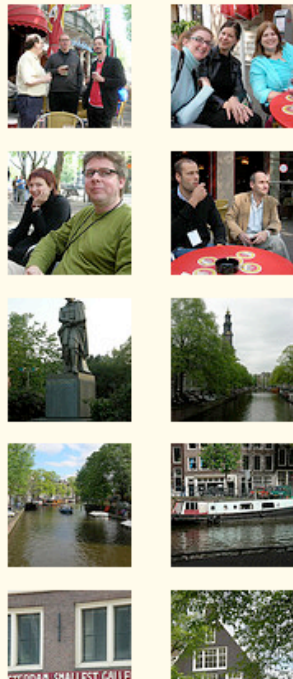
Sort by: Recent | Alpha | Points

▼ **Project One** [view](#) | [delete](#)
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin tempor, lectus aliquet ornare suscipit, diam turpis suscipit velit, rhoncus feugiat purus metus gravida turpis. Nam nisl. Nulla et est in neque laoreet consequat. Quisque quis pede. Curabitur pretium. Etiam varius. Suspendisse tempus nisl eu lectus. Integer et velit. Quisque quis magna. Nunc pellentesque pharetra ligula. Morbi semper.

▼ **Project Two** [view](#) | [delete](#)
Quisque nunc. In ac urna egestas arcu egestas imperdiet. Donec id erat id nulla molestie venenatis. Nam a quam. Nulla ornare. Fusce dignissim ultricies turpis. Fusce molestie odio ac eros. Nunc auctor massa in metus. Etiam mollis lorem in eros. Aliquam mi. Nam feugiat ante et felis.

▼ **Project Three** [view](#) | [delete](#)
Maecenas est mauris, volutpat sed, sollicitudin sed, dignissim ac, risus. Praesent rutrum gravida tortor. In in mi. Donec porttitor massa ut velit. Cras mollis sollicitudin quam. Cras felis sapien, dictum et, auctor eget, volutpat at, magna. Nunc id augue non quam varius molestie. Vestibulum quis ligula. Nunc semper. Vivamus ut turpis vel lorem vulputate sagittis. Proin tincidunt elit vitae augue tempus sagittis. Ut convallis nunc ut metus. Vestibulum dictum. Sed posuere est quis arcu. Suspendisse vitae nibh pretium velit lacinia venenatis. Nullam mattis congue neque. Vestibulum mattis, mauris quis eleifend ornare, ligula lectus ullamcorper enim, vel tempor tellus eros sed du.


Scratchpad



A vertical scrollbar is located to the right of the image grid.

take a rough prototype

what i really want



Bill Scott
Total Projects 12
Total Points 24

My Portfolio


Sort by: Recent | Alpha | Points

▼ Project One [view](#) | [delete](#)
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin tempor, lectus aliquet ornare suscipit, diam turpis suscipit velit, rhoncus feugiat purus metus gravida turpis. Nam nisl. Nulla et est in neque laoreet consequat. Quisque quis pede. Curabitur pretium. Etiam varius. Suspendisse tempus nisl eu lectus. Integer et velit. Quisque quis magna. Nunc pellentesque pharetra ligula. Morbi semper.

▼ Project Two [view](#) | [delete](#)
Quisque nunc. In ac urna egestas arcu egestas imperdiet. Donec id erat id nulla molestie venenatis. Nam a quam. Nulla ornare. Fusce dignissim ultricies turpis. Fusce molestie odio ac eros. Nunc auctor massa in metus. Etiam mollis lorem in eros. Aliquam mi. Nam feugiat ante et felis.

▼ Project Three [view](#) | [delete](#)
Maecenas est mauris, volutpat sed, sollicitudin sed, dignissim ac, risus. Praesent rutrum gravida tortor. In in mi. Donec porttitor massa ut velit. Cras mollis sollicitudin quam. Cras felis sapien, dictum et, auctor eget, volutpat at, magna. Nunc id augue non quam varius molestie. Vestibulum quis ligula. Nunc semper. Vivamus ut turpis vel lorem vulputate sagittis. Proin tincidunt elit vitae augue tempus sagittis. Ut convallis nunc ut metus. Vestibulum dictum. Sed posuere est quis arcu. Suspendisse vitae nibh pretium velit lacinia venenatis. Nullam mattis congue neque. Vestibulum mattis, mauris quis eleifend ornare, ligula lectus ullamcorper enim, vel tempor tellus eros sed du.

Scratchpad



take a rough prototype

Animate ColorAnimate Fade Move Spotlight
Close DragDrop Hide Open Popup
ReplaceClass Script SetClass SetStyle
Show ToggleClass ToggleOpenClose
ToggleShowHide FetchHtml SetHtml Blur
Click DbClick Focus Keypress Mousedown
Mousemove Mouseout Mouseover
Mouseup Timer

sprinkle in some behaviors

what i really want

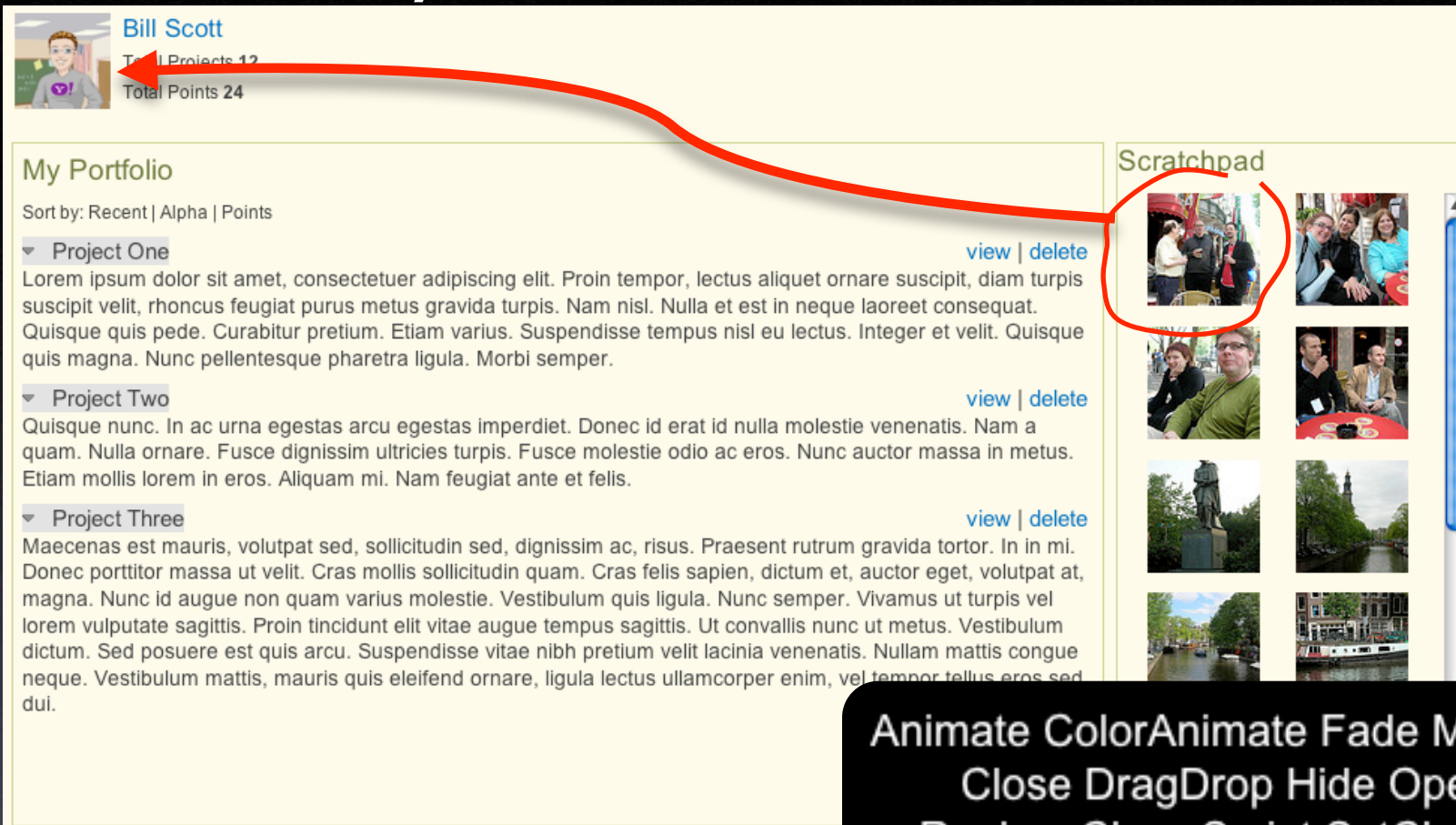
The screenshot shows a user profile for Bill Scott. The profile includes a small avatar, the name 'Bill Scott', and statistics: 'Total Projects 12' and 'Total Points 24'. Below this is a 'My Portfolio' section with a sort menu set to 'Recent | Alpha | Points'. There are three project entries, each with a title, a 'view | delete' link, and a paragraph of placeholder text. To the right is a 'Scratchpad' section containing a grid of image thumbnails. A large yellow arrow points from the right side of the image towards the Scratchpad section.

take a rough prototype

Animate ColorAnimate Fade Move Spotlight
Close DragDrop Hide Open Popup
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ToggleShowHide FetchHtml SetHtml Blur
Click DbIClick Focus Keypress Mousedown
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sprinkle in some behaviors

what i really want

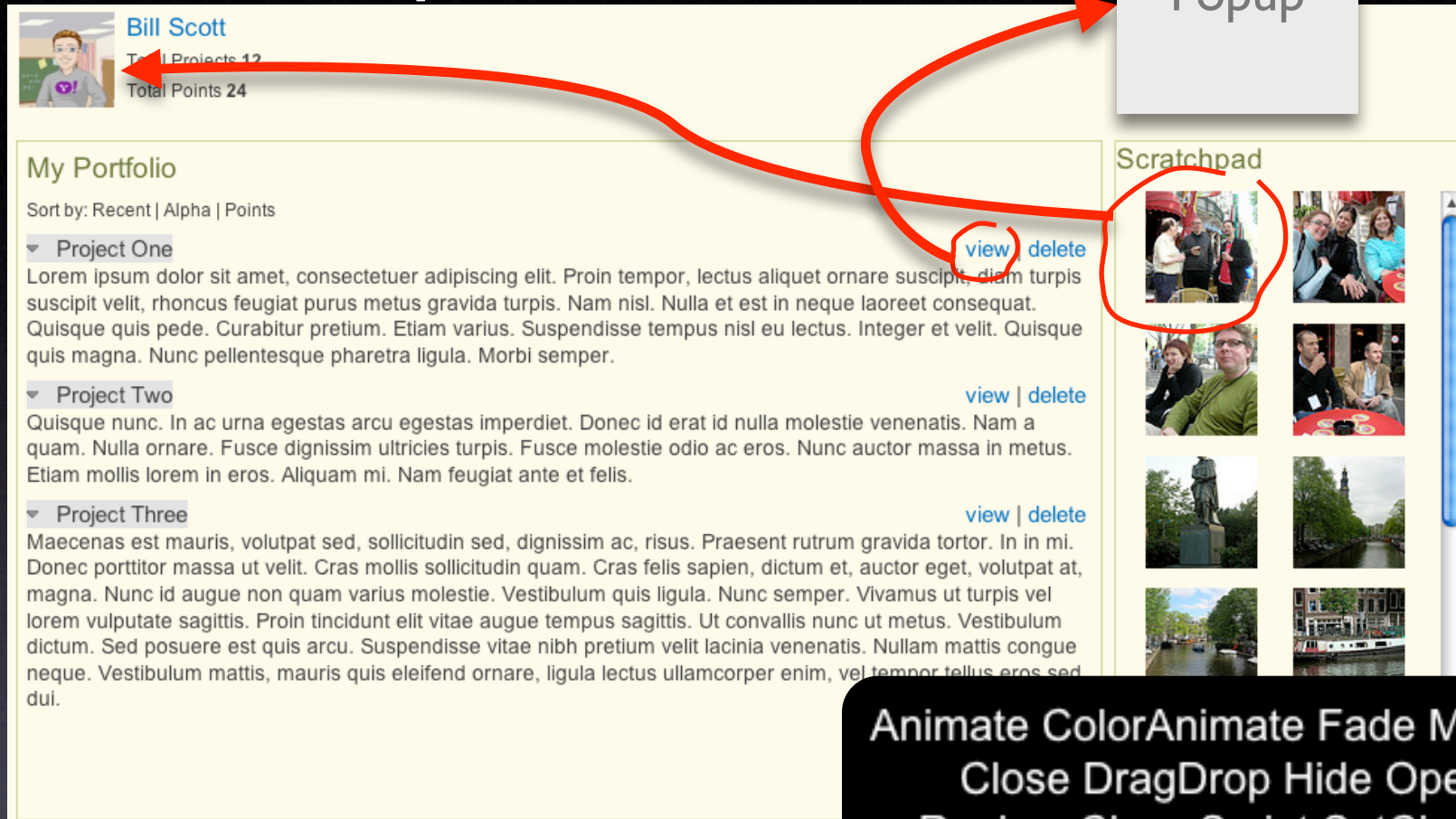


take a rough prototype

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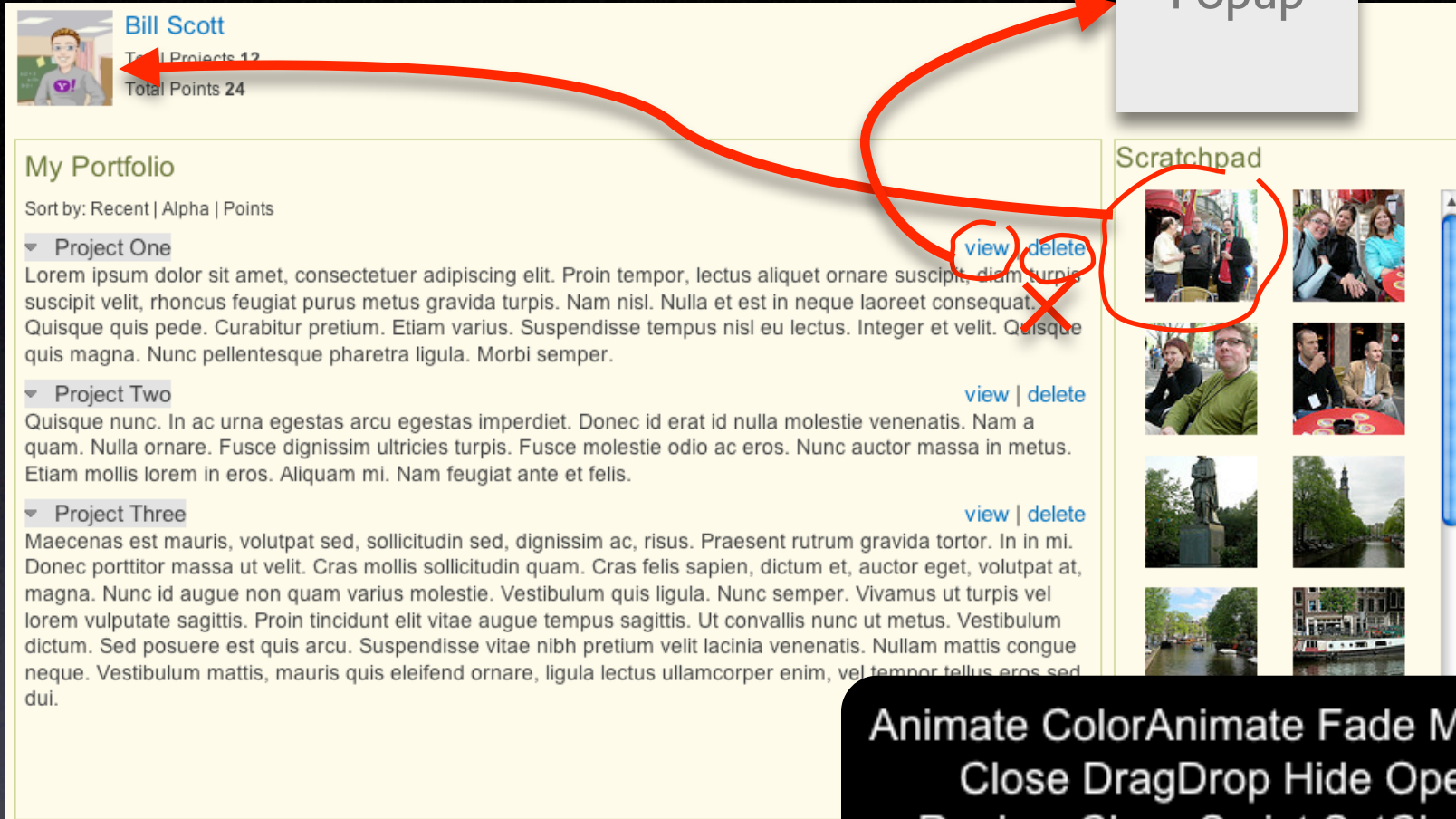
Popup

take a rough prototype

- Animate
- Color
- Animate Fade
- Move
- Spotlight
- Close
- DragDrop
- Hide
- Open
- Popup
- ReplaceClass
- Script
- SetClass
- SetStyle
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- Mouseout
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- Mouseup
- Timer

sprinkle in some behaviors

what i really want

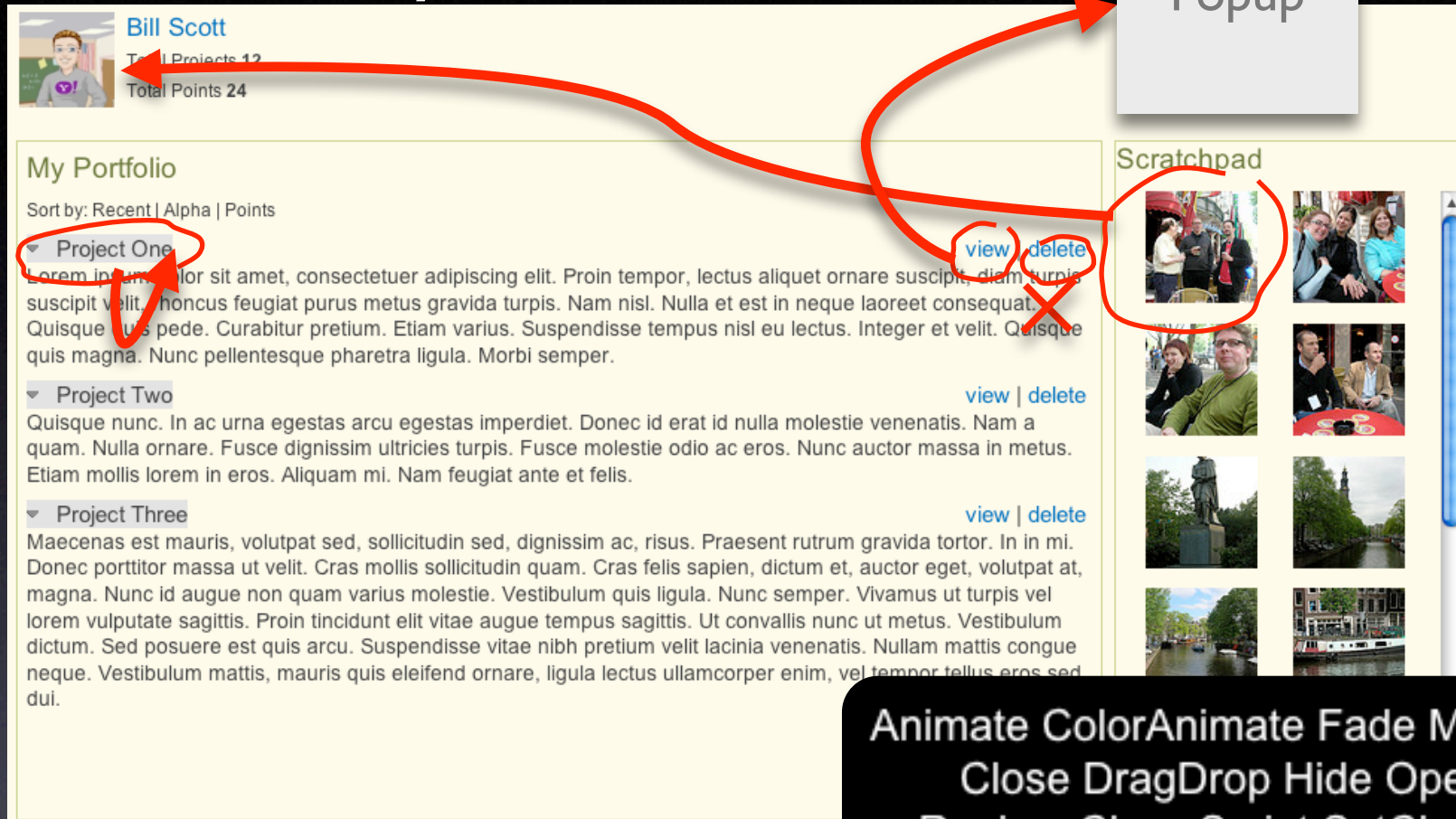


take a rough prototype

- Animate
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sprinkle in some behaviors

what i really want

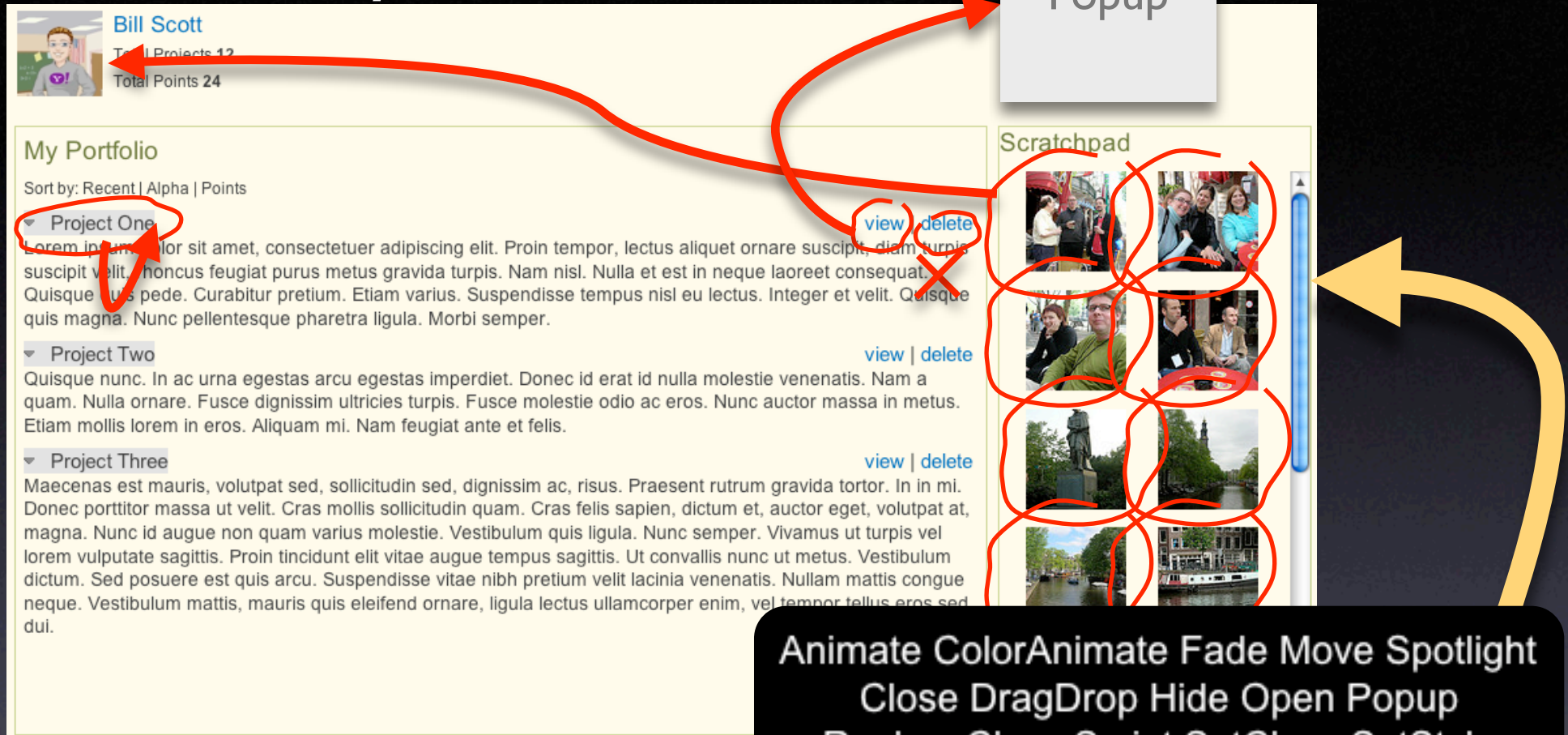


take a rough prototype

Animate ColorAnimate Fade Move Spotlight
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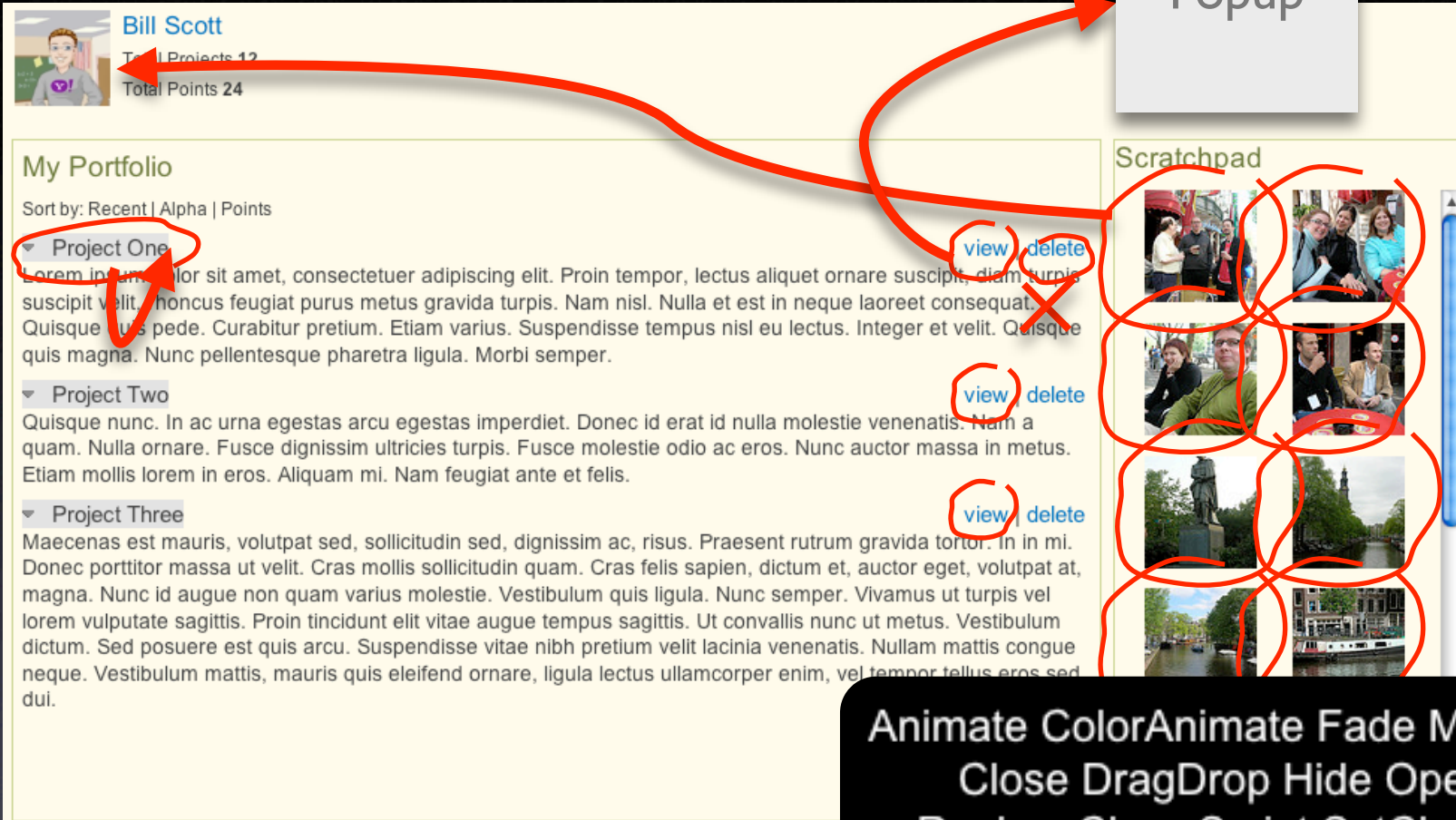


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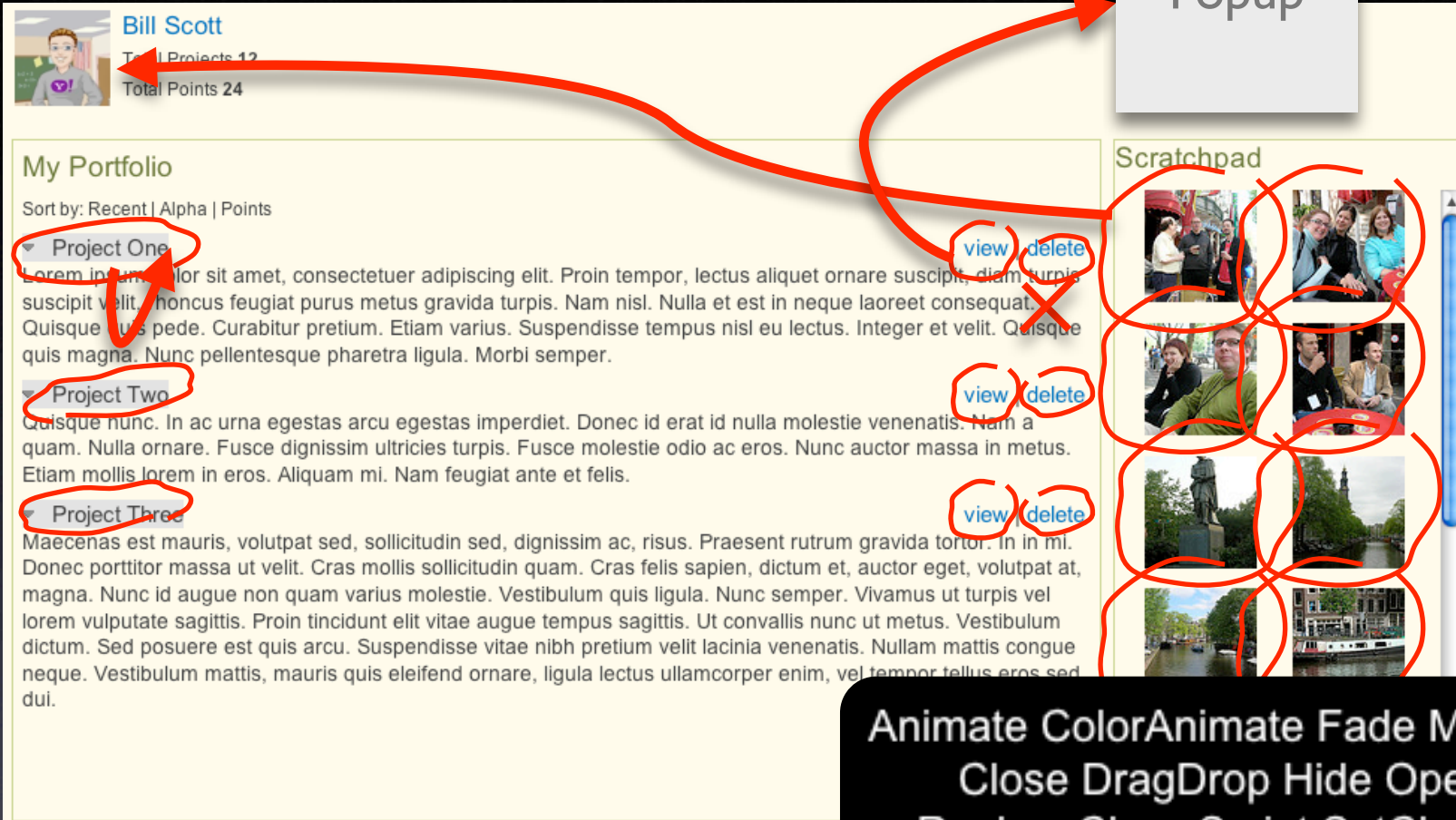
Popup

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sprinkle in some behaviors

what we will discuss

- quick overview of common design patterns (behaviors)
- quick survey of techniques to prototype a rich web experience
- dive into protoscript and discuss how it can be used to sprinkle behaviors into web pages
- look at similar techniques emerging (jQuery, css behaviors, DED | Chain, etc.)

patterns
(common interaction behaviors)

ria patterns

invitation. cursor invitation. hover invitation. tooltip invitation. page invitation. drop invitation. available. selected. auto complete. live suggest. refining search. dynamic filtering. live search. on-demand scrolling. deferred content loading. fresh content. on-demand content. periodic refresh. resizable modules. scrolling modules. hover detail. narrowing actions. narrowing choices. auto form fill. in-place drill down. dependent choices. look before you leap. drag and drop. drag and drop modules. drag and drop objects. persistent portals. in page edit. inline text edit. inline custom edit. direct state edit. rating an object. inline custom edit. inline tag edit. popup custom edit. grid cell edit. slide out custom edit. module configure. module flip configure. module inline configure. module slide out configure. module faceplate. expandable content. in-context tools. in-context links. in-context hover menu. silent submit. remembered collection. auto save. remembered preferences. hover spy. inline assistant. inline validation. validate then suggest. indicator. busy indicator. progress indicator. inline status. in-context busy. cursor busy. opacity fade. high contrast. balloon error tip. dynamic goal. opacity focus. detail zoom. lightbox. transition. brighten. cross-fade. dim. expand. fade-in. fade-out. flip. move. self-heal. collapse. slide. animate.

Design Pattern Library

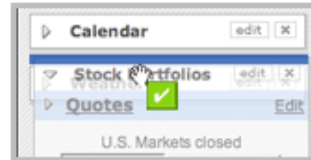
Yahoo! Developer Network > Design Pattern Library > Patterns from A to Z

Patterns from A to Z



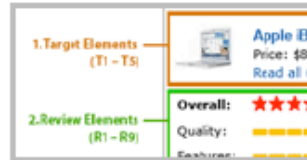
Alphanumeric Filter Links

The user needs the ability to look up information alphabetically within a large data set.



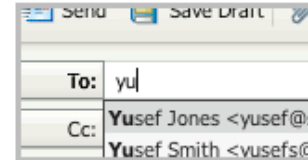
Animate Transition

The designer needs to communicate that an object is changing its spatial relationship within the page.



Architecture of a Review

A product or website needs to present ratings and reviews with a variety of informational elements.



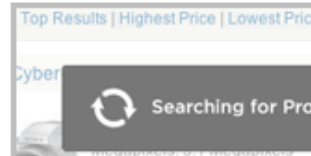
Auto Complete

The user needs to enter an item into a text box which could be ambiguous or hard to remember and therefore has the potential to be mis-typed.



Breadcrumbs

User needs to navigate potentially large quantities of information efficiently, without becoming lost.



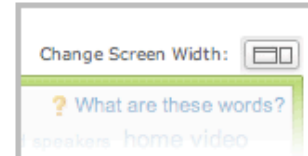
Brighten Transition

Designer wants to make a previously dimmed object a point of focus by making the object bright again.



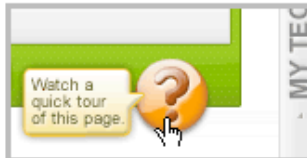
Calendar Picker

User wants to find or submit a particular piece of information based on a date or between a date range.



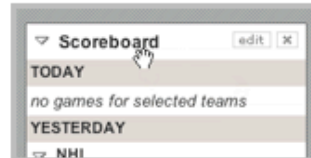
Collapse Transition

The designer needs to communicate that an object is no longer of primary importance, yet wants to keep it available in a smaller form.



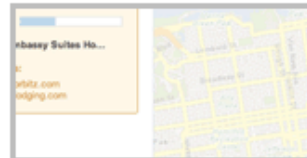
Cross Fade Transition

Designer wants to communicate that a new view of an object is replacing the previous view.



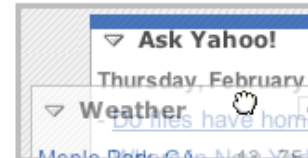
Cursor Invitation

Designer needs to cue the user that an object can be interacted with.



Dim Transition

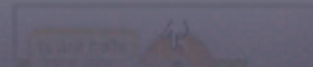
Designer needs to communicate that an object is of secondary importance.



Drag and Drop Modules

The user needs to re-arrange the layout of modules on a web page directly with the mouse.

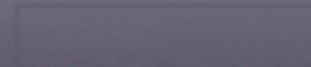
the previous view:
view of an object is replacing
communicate that a new
Designer wants to



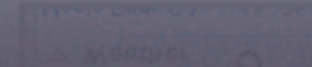
interacted with:
user that an object can be
Designer needs to cue the



is of secondary importance:
communicate that an object
Designer needs to



directly with the mouse:
modules on a web page
re-arrange the layout of
The user needs needs to



patterns

patterns

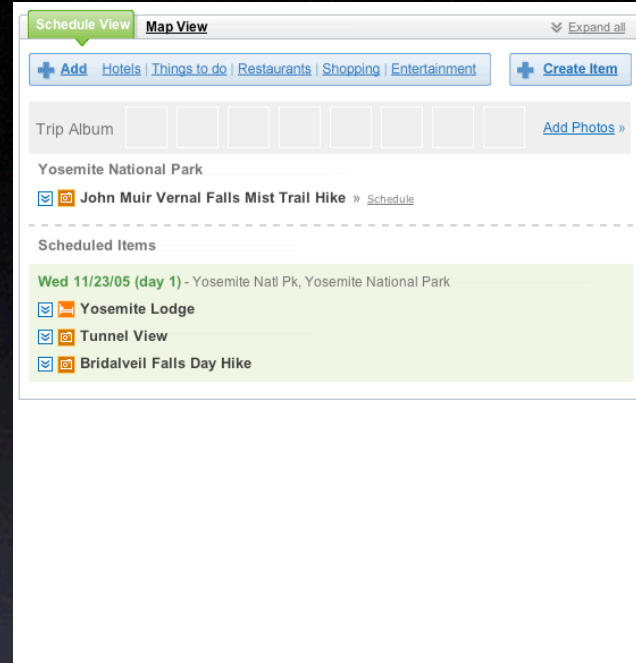


pattern. in-page action.

patterns



pattern. in-page action.

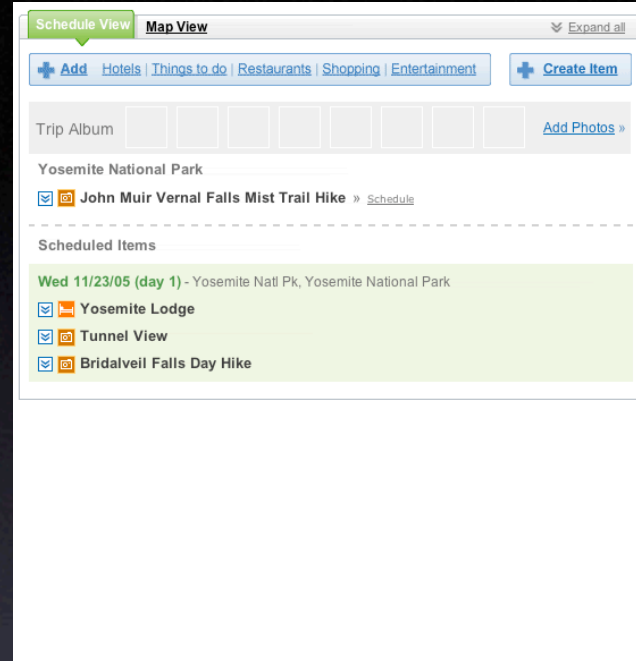


pattern. in-context expand.

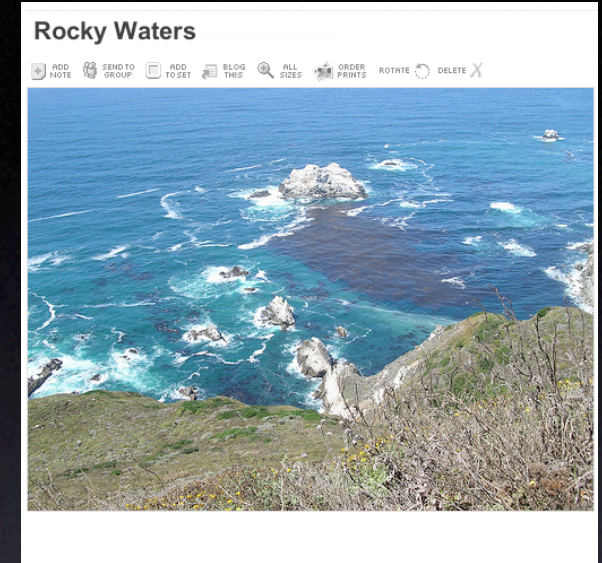
patterns



pattern. in-page action.



pattern. in-context expand.

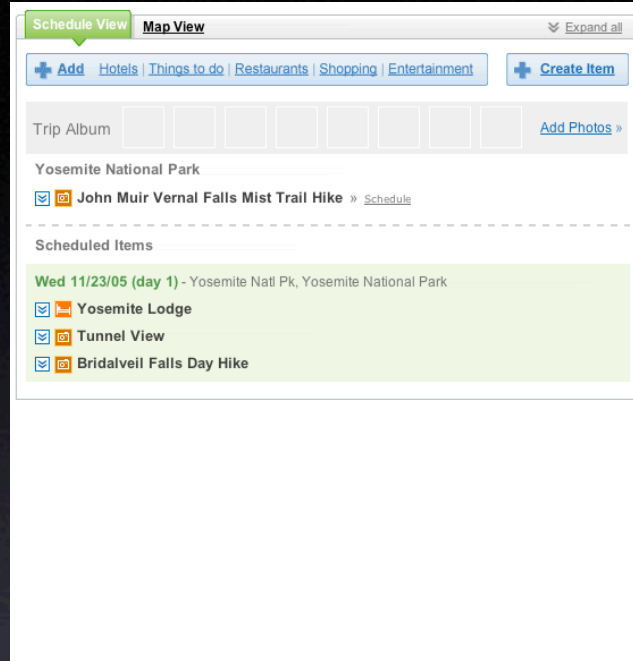


pattern. inline editing.

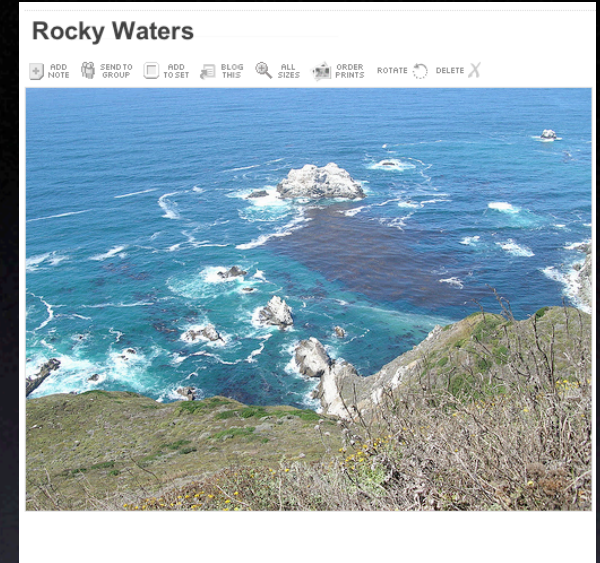
patterns



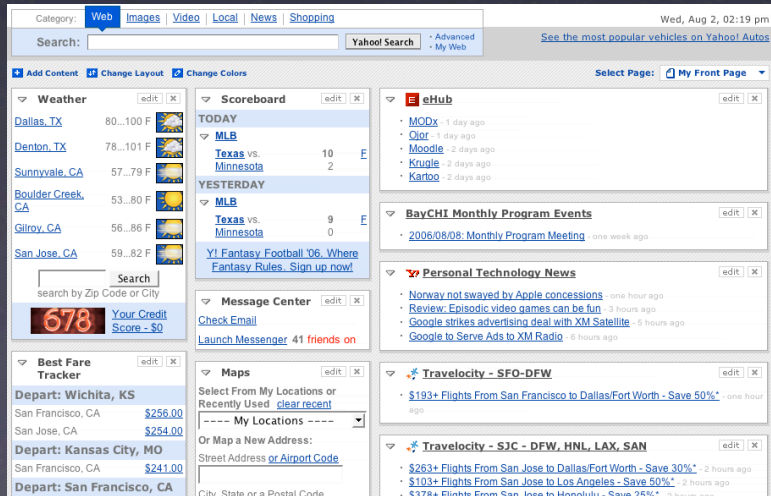
pattern. in-page action.



pattern. in-context expand.



pattern. inline editing.

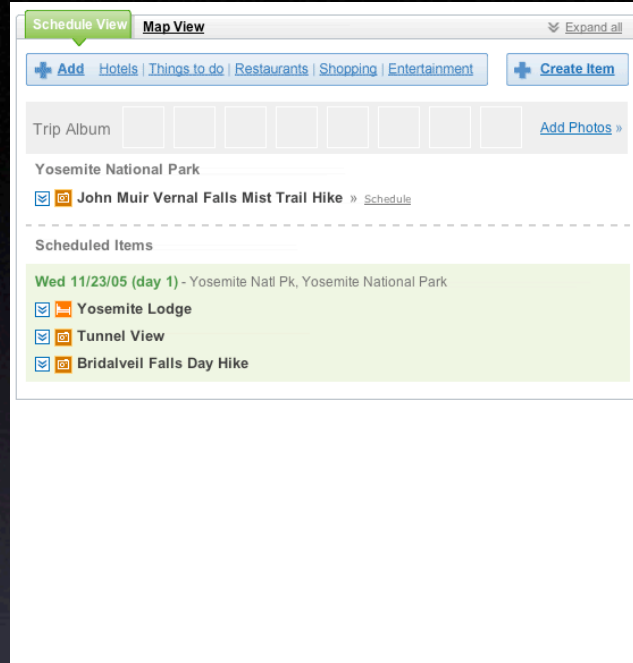


pattern. drag & drop.

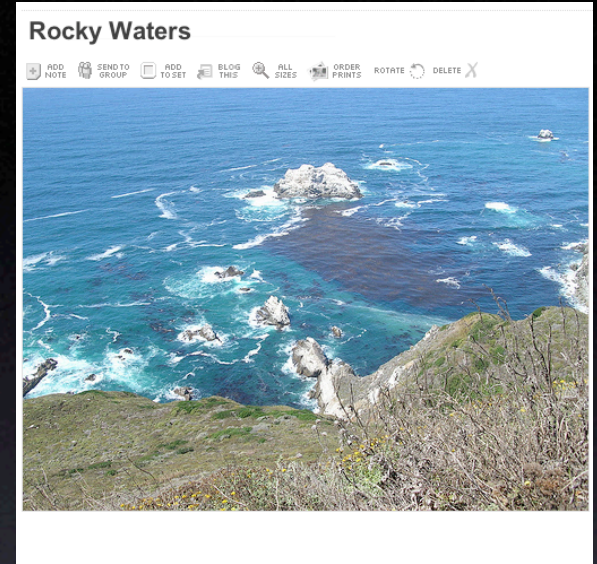
patterns



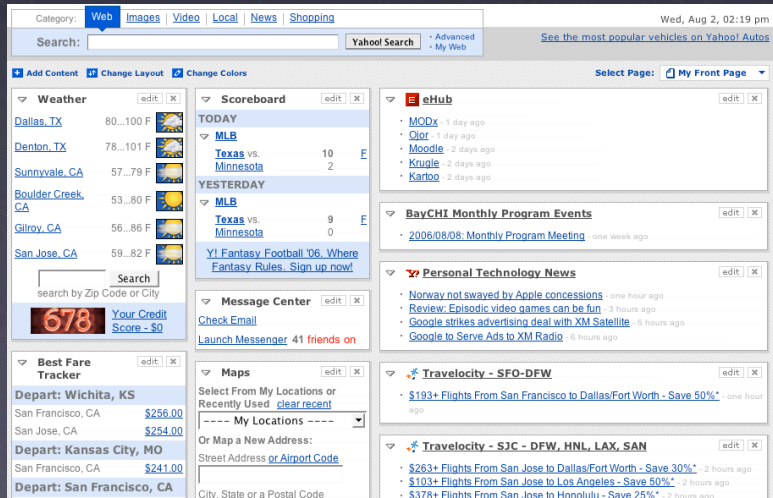
pattern. in-page action.



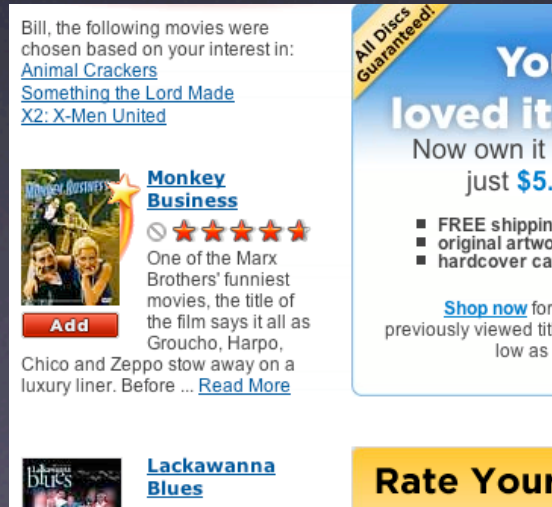
pattern. in-context expand.



pattern. inline editing.



pattern. drag & drop.

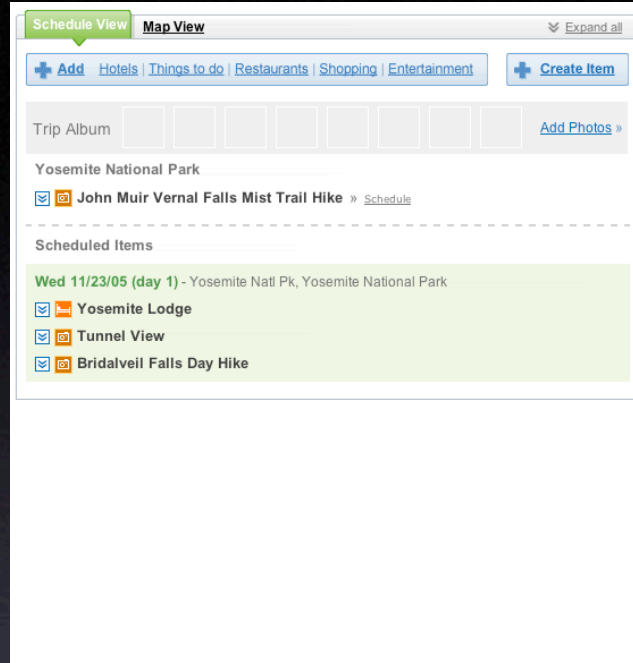


pattern. hover details.

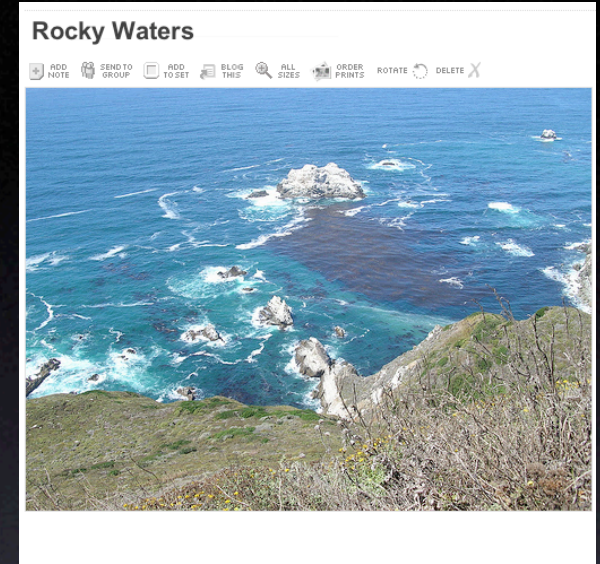
patterns



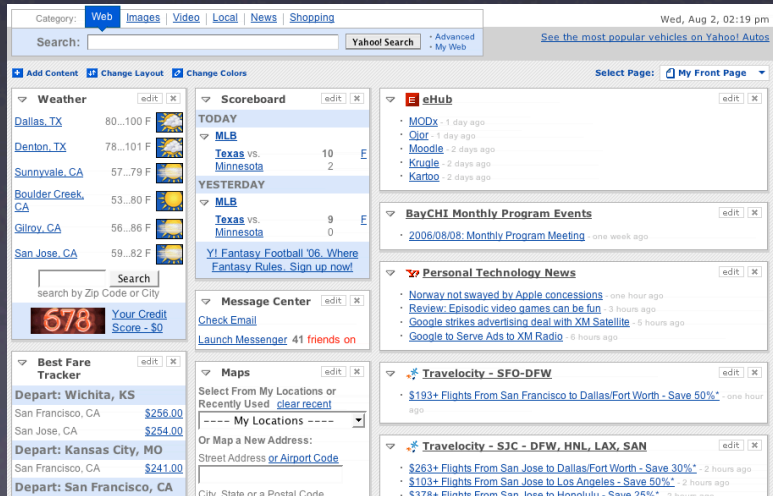
pattern. in-page action.



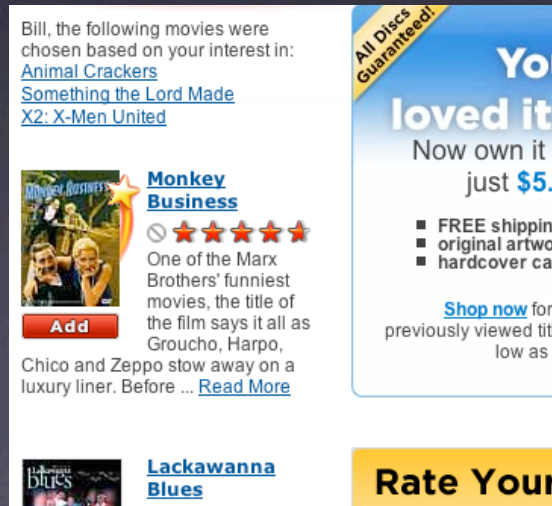
pattern. in-context expand.



pattern. inline editing.



pattern. drag & drop.



pattern. hover details.



pattern. in-context tools.

patterns

patterns

0 items in [my bag](#) [checkout](#)

Pique polo

only at gap.com

[overview](#) [you'll also like](#)

Soft cotton pique knit.
Short-sleeved, button neckline.

- [Need large quantities? Click for Corporate Apparel](#)
- 100% Cotton. Machine wash. Imported.

[regular](#) [tall](#)

Buy More and Save #346927
prices may vary

select Color: **royal grape**
\$29.50 **Buy 2 or more, \$25.00 each**

~~\$29.50~~ **\$9.99**

select Size:

XS S M L XL XXL XXXL

[size chart](#)

Quantity:

royal grape
~~\$29.50~~ **\$9.99**

pattern. remembered collections.

patterns

0 items in **my bag** **checkout**

Pique polo

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overview | you'll also like

Soft cotton pique knit.
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regular | tall

Buy More and Save #346927 prices may vary

select Color: **royal grape**

\$29.50 **Buy 2 or more, \$25.00 each**

Color swatches: white, dark blue, grey, black, purple, pink

~~\$29.50~~ **\$9.99**

select Size: XS | S | M | L | XL | XXL | XXXL

size chart

Quantity: 1 | **royal grape** ~~\$29.50~~ **\$9.99** **add to bag**

pattern. remembered collections.

YAHOO! MAIL BETA Welcome, b.scott Sign Out, My Account, Switch Back

Inbox 2324 messages

Check Mail Compose

Find Messages... Go

Reply Forward Move Print Spam Delete More

From	Subject	Received
me	Re: rico question	Thu, 1/19/2006 10:19:19 AM
Bill Scott	[Looks Good Works Well] 1/19/2006 01:13:13 PM	Thu, 1/19/2006 10:19:19 AM
JDJ Industry Newsletter	Java Named "Programming Language of the Year"	Thu, 1/19/2006 10:19:19 AM
Travelocity Member Services	Price Alert! Flight + 5 Night Hotel to Honolulu	Thu, 1/19/2006 10:19:19 AM
Theresa Neill	Re: Job Description	Thu, 1/19/2006 10:19:19 AM
Damon Houglund	Job Description	Thu, 1/19/2006 10:19:19 AM
Finan, Angeliqne	RE: Speaking Engagement Opportunity	Thu, 1/19/2006 10:19:19 AM
David Schontzler	Re: [ng-dhtml] assert(), isNumeric(), isOFT	Thu, 1/19/2006 10:19:19 AM
TagWorld	This week in TagWorld	Thu, 1/19/2006 10:19:19 AM
me	rico question	Thu, 1/19/2006 10:19:19 AM
Anonymous	[Looks Good Works Well] 1/19/2006 10:22:22 AM	Thu, 1/19/2006 10:19:19 AM
Anonymous	[Looks Good Works Well] 1/19/2006 10:19:19 AM	Thu, 1/19/2006 10:19:19 AM
Anonymous	[Looks Good Works Well] 1/19/2006 10:19:19 AM	Thu, 1/19/2006 10:19:19 AM
Anonymous	[Looks Good Works Well] 1/19/2006 10:19:19 AM	Thu, 1/19/2006 10:19:19 AM

Standard Header | Hide Pane

Got your eye on one of those messages up there?
To view your message down here in this handy Reading pane, just click on it.
To select more than one, hold the Shift or Command key.

My Folders: Inboxes, Drafts, Sent, Spam (501), Trash (3), Contacts, Calendar, Notepad, All RSS Feeds

My Folders: dojo-maillist (4), ID Disc, Karthik-Referrals, Keep, MerchantSpam (149), ux mail lists (1863)

What's your Credit Score?

Netflix-Try Free! No Late Fees

Online Degree Programs

pattern. on-demand scrolling.

patterns

0 items in **my bag** **checkout**

Pique polo

only at gap.com

overview you'll also like

Soft cotton pique knit.
Short-sleeved, button neckline.

- Need large quantities? Click for Corporate Apparel
- 100% Cotton. Machine wash. imported.

regular tall

Buy More and Save #346927 prices may vary

select Color: **royal grape**
\$29.50 **Buy 2 or more, \$25.00 each**

Color swatches: white, dark blue, grey, black, purple, pink

~~\$29.50~~ **\$9.99**

select Size: **XS** S M L XL XXL XXXL

size chart

Quantity: **royal grape** **\$29.50 \$9.99** **add to bag**

pattern. remembered collections.

Ask Your Question

1. Enter your question
You can ask **5** more questions today.

You have **110** characters to work with. Add

2. Add details (optional)
No spam, please! When in doubt, please refer to our [community guidelines](#).

You have **1000** characters to work with.

pattern. auto complete.

YAHOO! MAIL BETA Welcome, b.scott Sign Out, My Account, Switch Back

Inbox 2324 messages

From	Subject	Received
me	Re: rico question	Thu, 1/19/2006 10:19:19 AM
Bill Scott	[Looks Good Works Well] 1/19/2006 01:13:13 PM	Thu, 1/19/2006 01:13:13 PM
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Anonymous	[Looks Good Works Well] 1/19/2006 10:22:19 AM	Thu, 1/19/2006 10:22:19 AM
Anonymous	[Looks Good Works Well] 1/19/2006 10:19:19 AM	Thu, 1/19/2006 10:19:19 AM
Anonymous	[Looks Good Works Well] 1/19/2006 10:19:19 AM	Thu, 1/19/2006 10:19:19 AM
Anonymous	[Looks Good Works Well] 1/19/2006 10:19:19 AM	Thu, 1/19/2006 10:19:19 AM

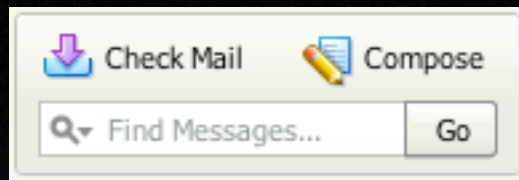
Standard Header | Hide Pane

Got your eye on one of those messages up there?
To view your message down here in this handy Reading pane, just click on it.
To select more than one, hold the Shift or Command key.

pattern. on-demand scrolling.

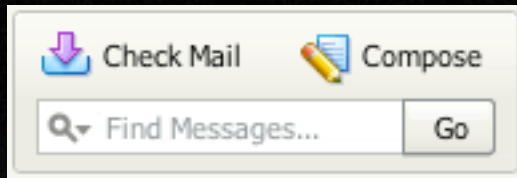
patterns

patterns



pattern. **busy** indicator.

patterns

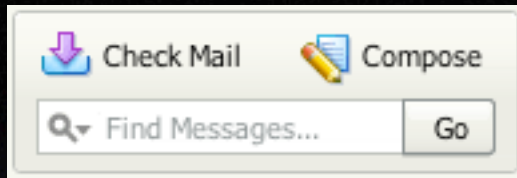


pattern. busy indicator.

A screenshot of the Netflix website's 'Recommendations' page. The page has a red header with the Netflix logo and navigation links like 'Your Account', 'Buy / Redeem Gift', and 'Help'. Below the header is a navigation bar with tabs for 'Browse', 'Recommendations', 'Friends', 'Queue', and 'Buy DVDs'. The main content area is titled 'Recommendations' and features a yellow background. It displays two movie recommendations: 'Samurai Champloo (7-Disc Series)' and '12 Angry Men'. Each recommendation includes a movie poster, a star rating, a 'Not Interested' button, and a brief description. A central yellow box with a starburst graphic says 'You Have Recommendations!' and encourages users to 'Rate More Movies'. On the right side, there is a 'Browse' sidebar with a list of genres and their counts, such as 'Action & Adventure (89)', 'Drama (123)', etc. At the bottom, there are 'CLASSICS' and 'DRAMA' category labels.

pattern. lightweight popup + lightbox.

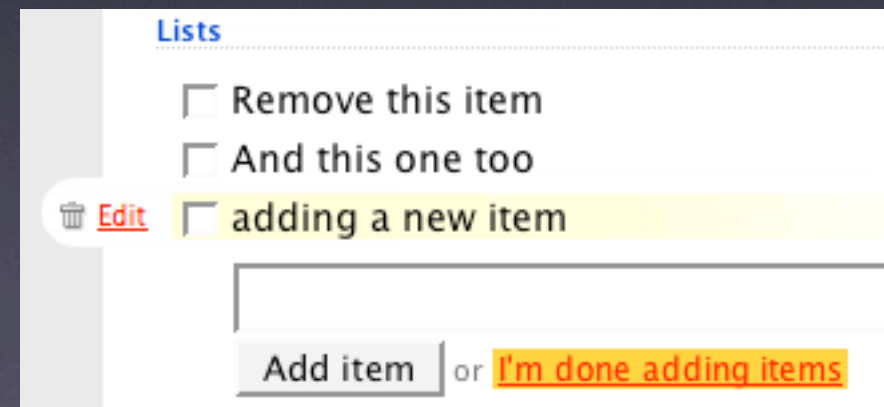
patterns



pattern. busy indicator.



pattern. lightweight popup + lightbox.

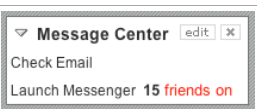
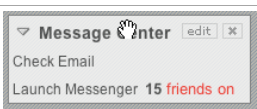
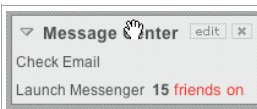
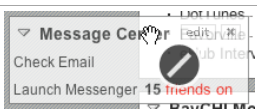
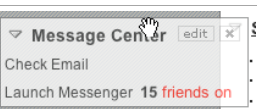
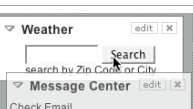
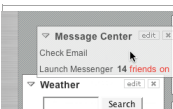
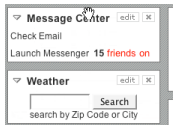
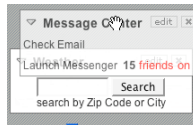
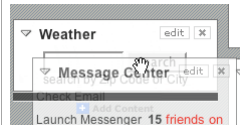
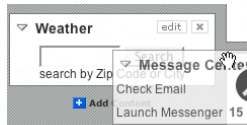
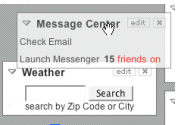
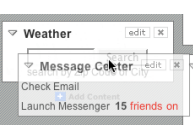
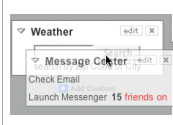


pattern. fade transition + self-healing transition

interesting moments

interesting moments

Drag and Drop Modules - Interesting Moments Grid

	Currently on beta.my.yahoo.com						ID: Bill Scott & Eric Miraglia	Date: Nov
	Mouse Hover	Mouse Down	Drag Initiated	Drag Over Valid Target	Drag Over Invalid Target	Drag Over Parent Container	Drop Accepted	Drop Rejected
Cursor	CSS Move cursor CSS Move cursor	CSS Move cursor	CSS Move cursor	CSS Move cursor	CSS Move cursor	CSS Move cursor	Normal Cursor	Normal Cursor
Tool Tip								
Drag Object	 <p>Full Opacity</p>	 <p>Reduced Opacity</p>	 <p>Reduced Opacity</p>	 <p>Reduced Opacity & Invalid Badge</p>	 <p>Reduced Opacity</p>	 <p>Modules animates into the area just below insertion bar</p>	 <p>Modules animates back to the home area</p>	
Drop Target	 <p>No insertion bar, just a gap</p>	 <p>No insertion bar, just a gap</p>	 <p>Insertion bar showing where it will drop</p>	 <p>No insertion bar, just a gap</p>	 <p>No insertion bar, just a gap & original hole</p>	 <p>Insertion bar is removed as first frame of animation</p>	 <p>Insertion bar is removed as first frame of animation</p>	

Drag Over
Invalid Target

Drag Over
Parent Container

Drop
Accepted

Drop
Rejected

Drop On
Parent Container



CSS Move cursor

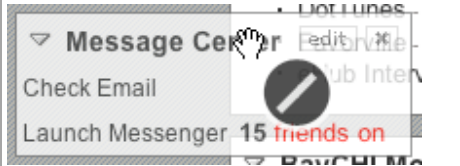


CSS Move cursor

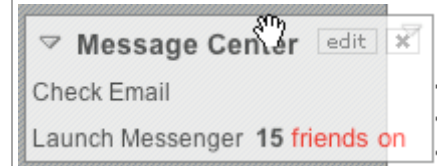
Normal Cursor

Normal Cursor

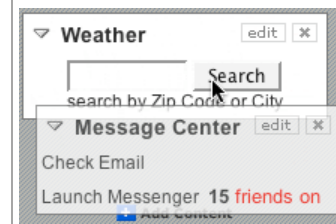
Normal Cursor



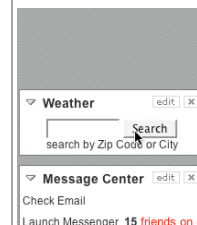
Reduced Opacity & Invalid Badge



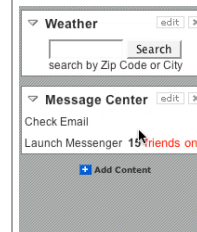
Reduced Opacity



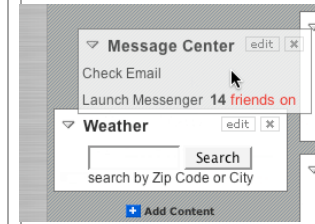
Modules animates into the area just below insertion bar



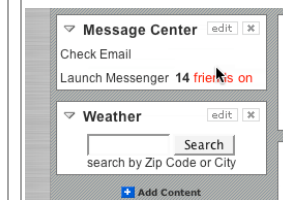
Module comes to rest in new area



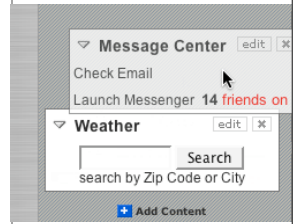
Modules slide up in a self-healing transition to close hole



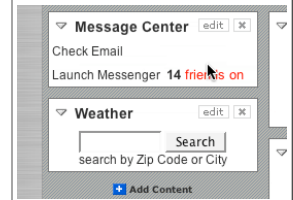
Modules animates back to the home area



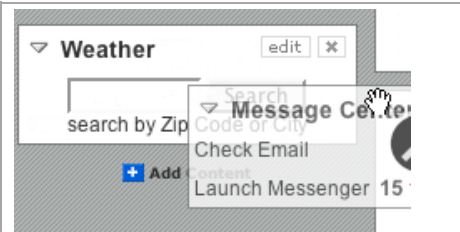
Module comes back to rest at full opacity



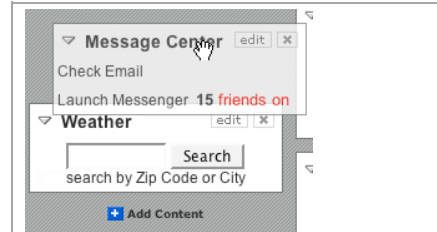
Modules animates back to the home area



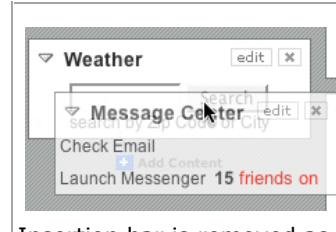
Modules comes back to rest at full opacity



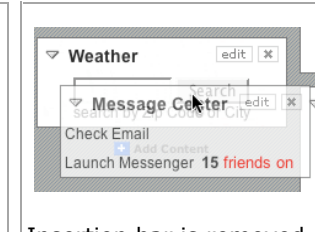
No insertion bar, just a gap



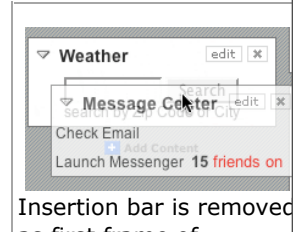
No insertion bar, just a gap & original hole



Insertion bar is removed as first frame of animation



Insertion bar is removed as first frame of animation



Insertion bar is removed as first frame of animation

it will drop

interesting moments for drag drop

	Page Generation	Mouse Hover	Drag Initiated	Drag over Valid	Drag over Invalid	Drag over Original	Drop Accepted	Drop Rejected	Drop on Original
Page Content	Hint	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cursor	Normal	Move Cursor	Move Cursor	Move Cursor	Move Cursor	Move Cursor	Normal	Normal	Normal
Drag Object	Normal	Normal	Reduced Opacity & Tracking	Reduced Opacity & Tracking	Reduced Opacity & Tracking + Invalid Badge	Reduced Opacity & Tracking	2. Modules animates into the area just below insertion bar 3. Module comes to rest in new area 4. Modules slide up in a self-healing transition to close hole	Normal Opacity + Zoom Back to Original	Normal Opacity + Zoom Back to Original
Orig Location	Normal	Normal	Hole Opens	Hole Remains	Hole Remains	Hole Remains	Hole Remains	Hole refilled with drag object	Hole refilled with drag object
Drop Target	Normal	Normal	Normal	Insertion Bar	N/A	N/A	1. Insertion Bar Removed	N/A	N/A

non-dhtml prototyping techniques

challenge of interesting moments



Wireframing AJAX is a bitch. The best our agency has come up with is the Chuck Jones approach: draw the key frames. Chuck Jones had an advantage: he knew what Bugs Bunny was going to do. We have to determine all the things a user might do, and wireframe the blessed moments of each possibility.

- Jeffrey Zeldman

<http://www.alistapart.com/articles/web3point0/>

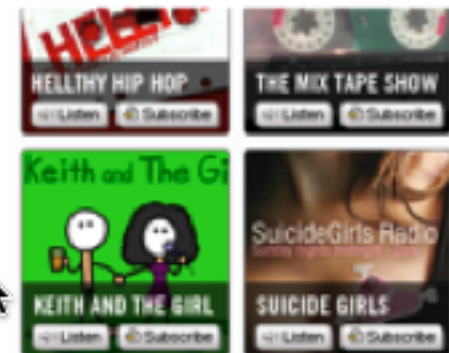
- Blessed Moments = Microstates = Interesting Moments
 - behavior is not static
 - Multiple states need to be captured
 - Happens within a context
 - Not suited for wireframes

using keyframes

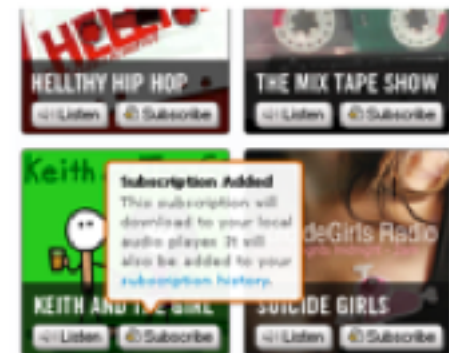
AJAX Status Interaction



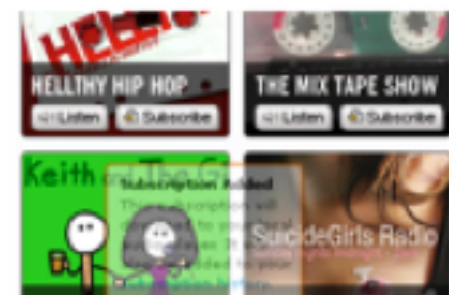
1 On Page Load



2a On Click display message (listen and subscribe buttons have same

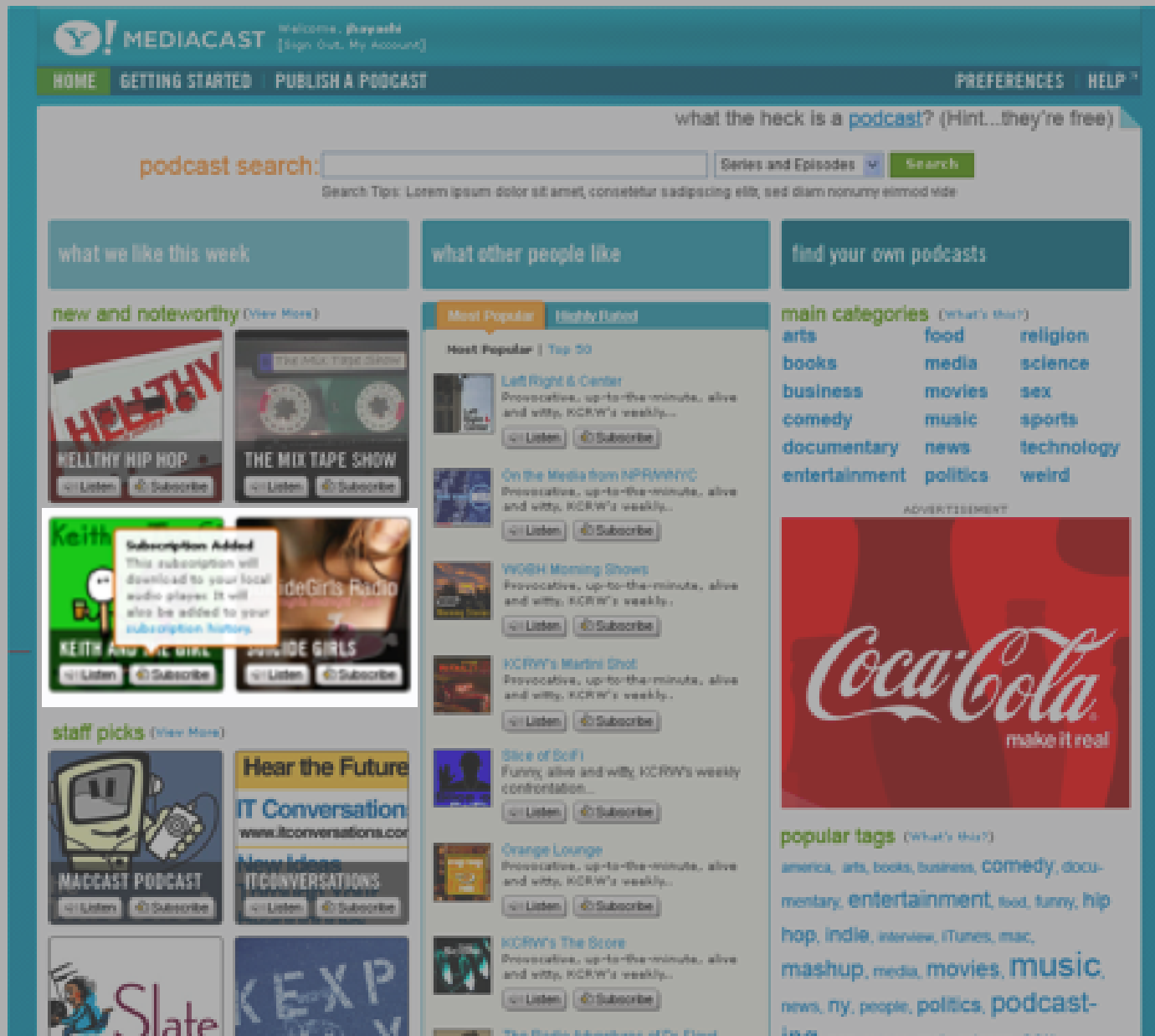


2b Fade (50% opacity)

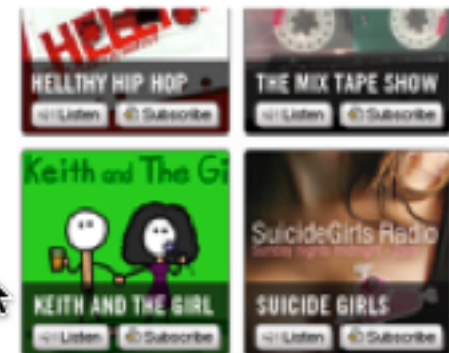


using keyframes

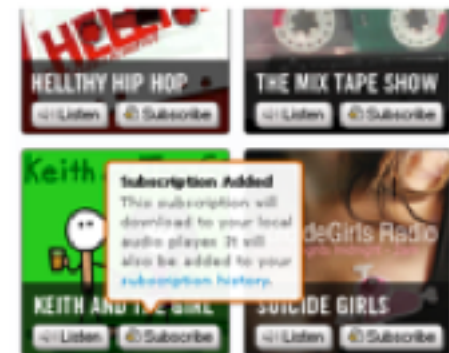
AJAX Status Interaction



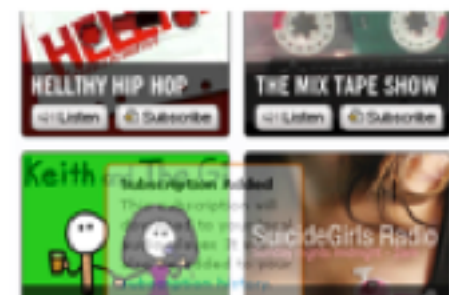
1 On Page Load



2a On Click display message (listen and subscribe buttons have same)



2b Fade (50% opacity)



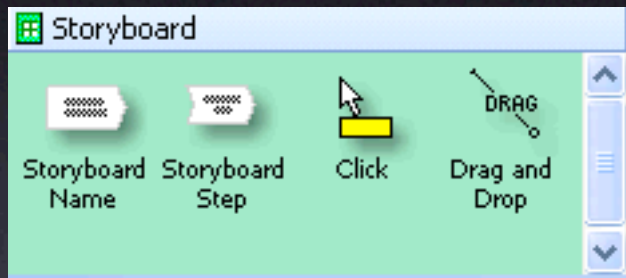
prototyping with visio

- Changes in state placed in different layers
- Storyboard steps toggle visibility of associated layers
- Each storyline serves as a use case in the wireframe

Source: http://www.boxesandarrows.com/view/storyboarding_rich_internet_applications_with_visio

prototyping with visio

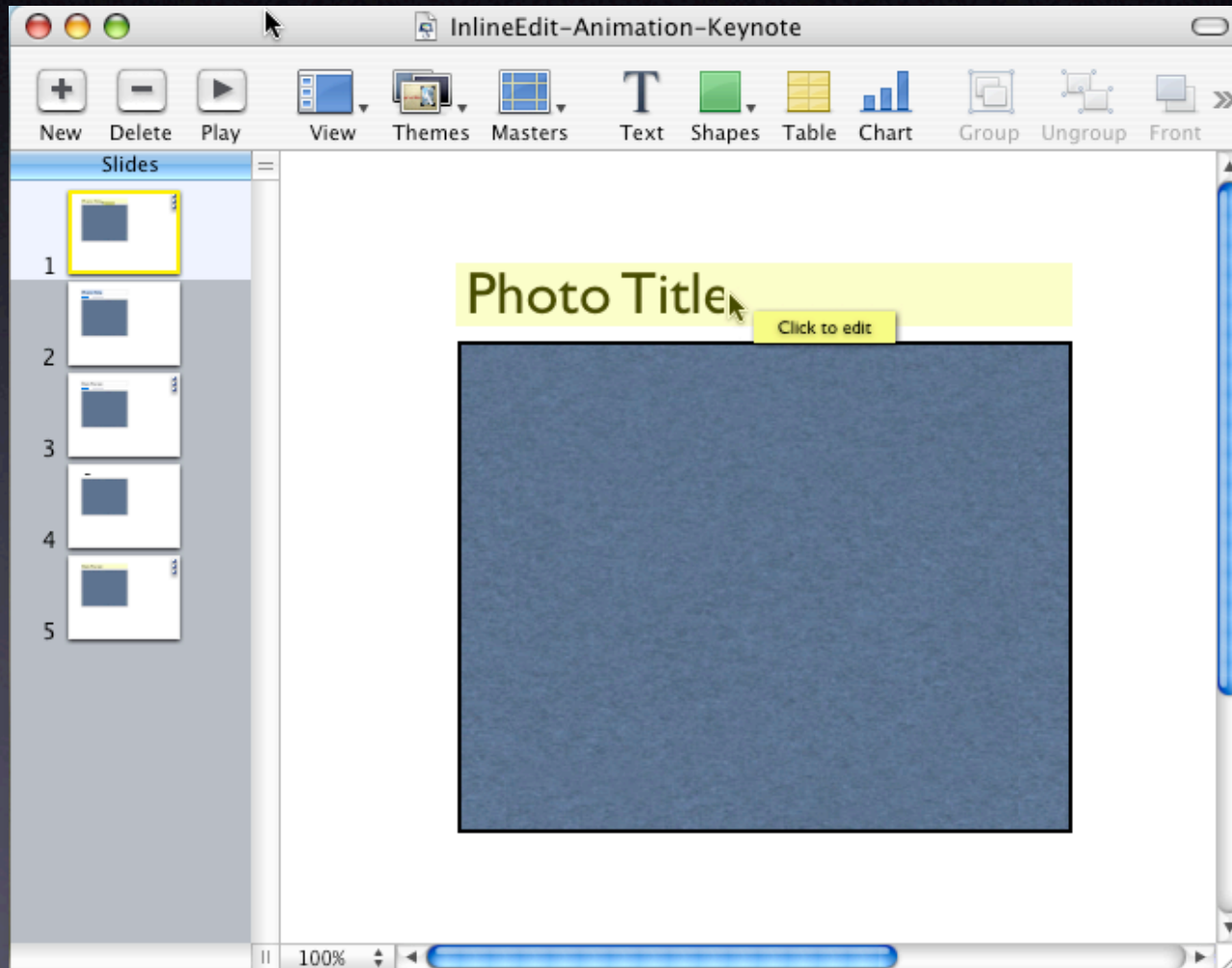
- Changes in state placed in different layers
- Storyboard steps toggle visibility of associated layers
- Each storyline serves as a use case in the wireframe



Source: http://www.boxesandarrows.com/view/storyboarding_rich_internet_applications_with_visio

prototyping with keynote/powerpoint

- Slides make major steps
- Builds used to bring in transitions, animations



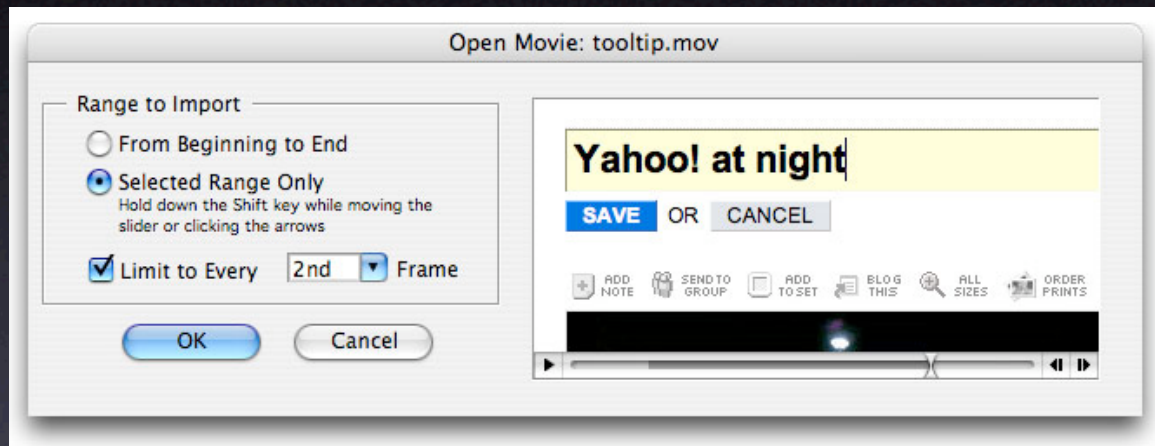
prototyping with photoshop

- Easy to create from a series of images
- Images can be created by hand or from other apps

animations from screencasts

Start with screencast (SnapZPro/SnagIt)

Turn movie into animated GIF (Adobe ImageReady)



other approaches

Flash

Flex

iRise (www.irise.com) \$\$\$

Axure (www.axure.com)

Interactive PDFs

Fireworks + PDF

Powerpoint

DHTML

dhtml prototyping

prototyping with DHTML

- Benefits
 - Can start simple and layer in complexity
 - Works well across different teams (design to code)
 - Technology the same or similar to final implementation
 - Most capable to approximate final result
 - Living example
- Disadvantages
 - Requires technical savvy
 - Bugs can suck down time
 - Too much time spent 'messing with code'
 - Hard to extract into documentation

dhtml prototyping skills/techniques

- Keep structure, style and logic separate
 - Avoid adding onclick handlers in the HTML (unobtrusive)
 - Avoid any direct styles or html style tags (font, etc.)
- Use style class switching for visual changes
- Use CSS to simulate most mouse hover behavior
- Use innerHTML for content changes
- Understand when to use a class vs. id
- Use CSS query libraries for referencing interface parts
 - CSS selector syntax allows non-intrusive behavior injection

dhtml prototyping skills/techniques

- Use anchors as basic navigation/action hooks
- Use background images in CSS with style switching
- Use a grid layout system
 - YUI Grid
- Use Firebug
- Understand CSS Selectors
 - Ext, jQuery, Dojo, Mootools, Prototype, cssQuery()
- Use JSON syntax (options)

underlying desire for protoscript

- address the **conceptual phase** of interface development
-- think “**interaction theme**”
(free from solving production issues)
- express an **interaction as a configuration**
(no code; declarative approach)
- **dynamically insert interaction** themes (behaviors) to any web page
(allows experimentation)
- create a **gui tool** for configuring & exploring interactions

protoscript approach

- JSON used to express interaction theme to express relationship between dom elements, behaviors, attributes, and callbacks
- jQuery CSS Selector syntax for dom elements
- Chain dependent behavior as well as parallel behavior with JSON syntax
- Simple to add behaviors (class with 2 methods)
- Focus is on prototyping

Demo

<http://protoscript.com/demos.php>

simple example

Here's an example that fades & closes the image when the user clicks on it. (It's live, so go ahead and try it!)



```
$proto('img#avatar', {  
  Click: {  
    onClick: {  
      Fade: {  
        opacity: {to: 0},  
        onComplete: {Close : {}} }  
      }  
    }  
  }  
});
```

The protoscript above says: *for an image with id **avatar**, fade it out when the user clicks on it and close it when the fade completes.*

Simple Click, Fade, Close
(self-healing delete)

sprinkling in behaviors



Bill Scott

Total Projects 12

Total Points 24

My Portfolio

Sort by: Recent | Alpha | Points

Project One

[view](#) | [delete](#)

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin tempor, lectus aliquet ornare suscipit, diam turpis suscipit velit, rhoncus feugiat purus metus gravida turpis. Nam nisl. Nulla et est in neque laoreet consequat. Quisque quis pede. Curabitur pretium. Etiam varius. Suspendisse tempus nisl eu lectus. Integer et velit. Quisque quis magna. Nunc pellentesque pharetra ligula. Morbi semper.

Project Two

[view](#) | [delete](#)

Quisque nunc. In ac urna egestas arcu egestas imperdiet. Donec id erat id nulla molestie venenatis. Nam a

Scratchpad



My Portfolio

Sort by: Recent | Alpha | Points

Project One

[view](#) | [delete](#)

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Proin tempor, lectus aliquet ornare suscipit, diam turpis suscipit velit, rhoncus feugiat purus metus gravida turpis. Nam nisl. Nulla et est in neque laoreet consequat. Quisque quis pede. Curabitur pretium. Etiam varius. Suspendisse tempus nisl eu lectus. Integer et velit. Quisque quis magna. Nunc pellentesque pharetra ligula. Morbi semper.

Project Two

[view](#) | [delete](#)

Quisque nunc. In ac urna egestas arcu egestas imperdiet. Donec id erat id nulla molestie venenatis. Nam a quam. Nulla ornare. Fusce dignissim ultricies turpis. Fusce molestie odio ac eros. Nunc auctor massa in metus. Etiam mollis lorem in eros. Aliquam mi. Nam feugiat ante et felis.

anatomy of an interaction

DOM elements

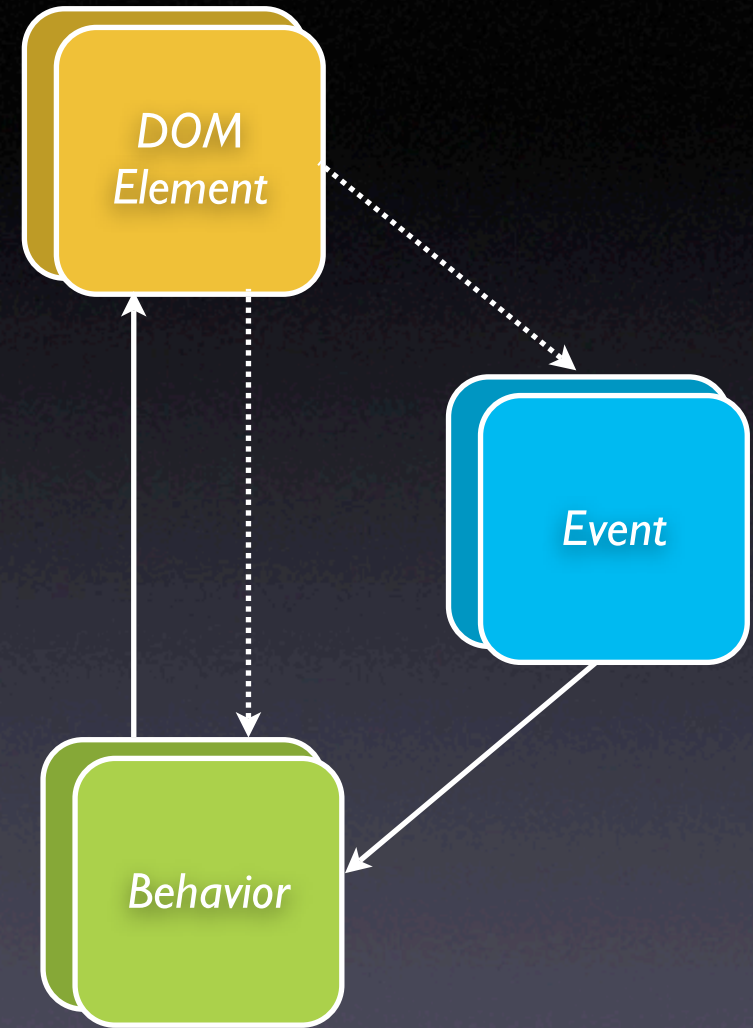
Target an element or elements for attaching events & behaviors.

Events

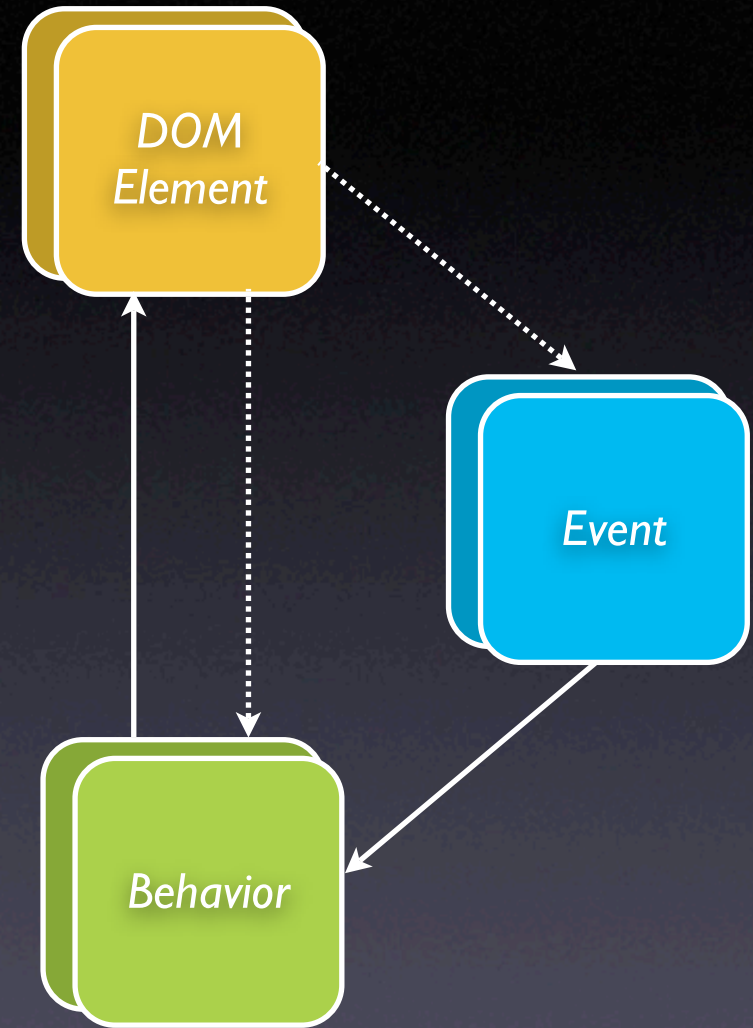
Events are the glue between the user and behaviors. They start behaviors.

Behaviors

Blocks of logic, patterns, actions that operate on elements.



anatomy of self-healing delete

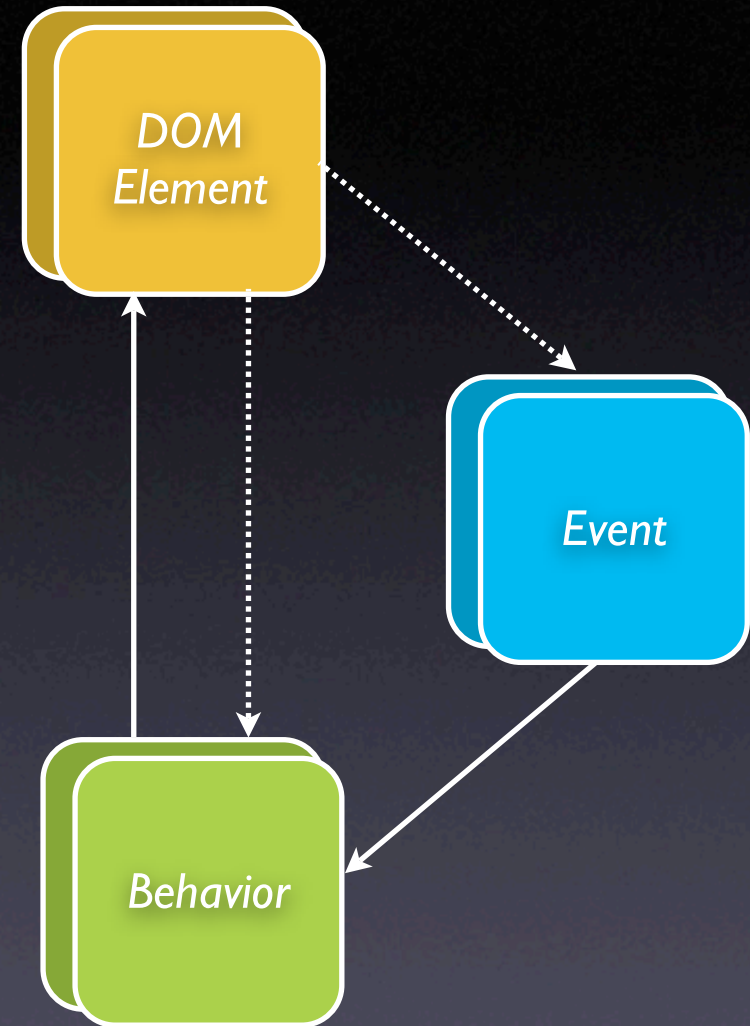


anatomy of self-healing delete

Handling Click for Multiple Elements

Files	Let's say you want to delete files from a list. You would like to embed the delete control with the filename.
[X] mystuff.tmp	
[X] bigfile.tmp	You can target two sets of objects: delete controls and list of file names.
[X] oldmovie.mov	
[X] scrap.txt	We select the [X] with 'span.contains([X])' and associate with it the hand cursor and click event.

The Fade & Close target the list of file names with 'multiple li' (all LI items in our multiple example). When you click on an individual delete control it knows the corresponding LI item and operates on it correctly. You can [click here](#) to restart the example.



anatomy of self-healing delete

DOM elements

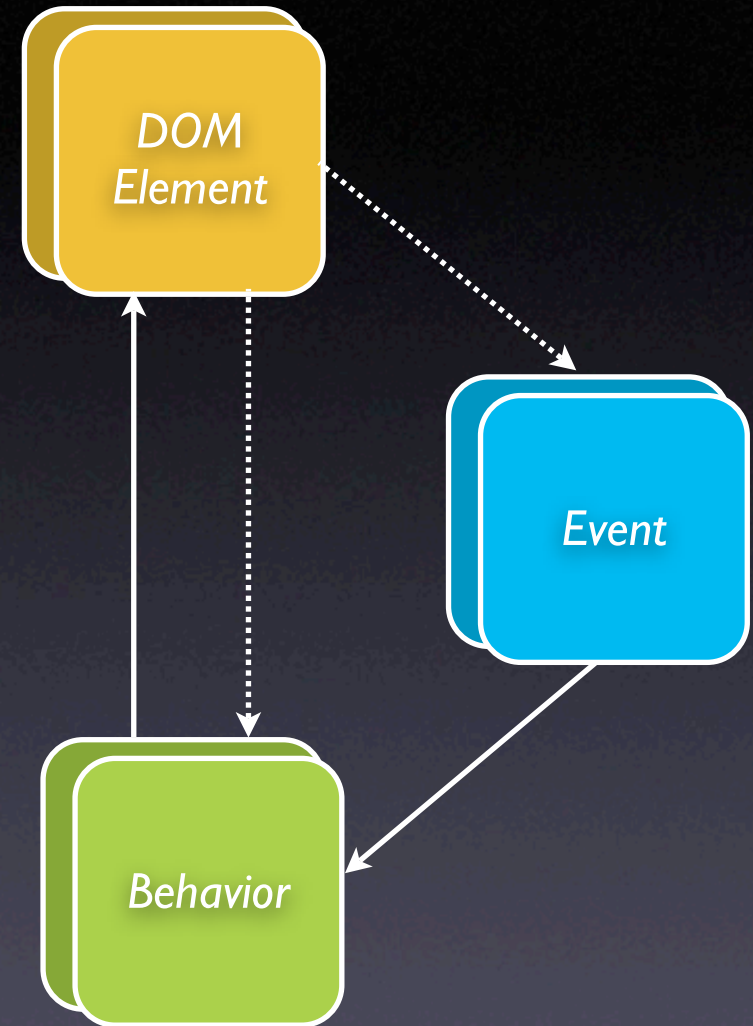
[X]

[X] oldmove.mov

Handling Click for Multiple Elements

Files	Let's say you want to delete files from a list. You would like to embed the delete control with the filename.
[X] mystuff.tmp	
[X] bigfile.tmp	You can target two sets of objects: delete controls and list of file names.
[X] oldmove.mov	
[X] scrap.txt	We select the [X] with 'span.contains([X])' and associate with it the hand cursor and click event.

The Fade & Close target the list of file names with 'multiple li' (all LI items in our multiple example). When you click on an individual delete control it knows the corresponding LI item and operates on it correctly. You can [click here](#) to restart the example.



anatomy of self-healing delete

DOM elements

[X]

[X] oldmove.mov

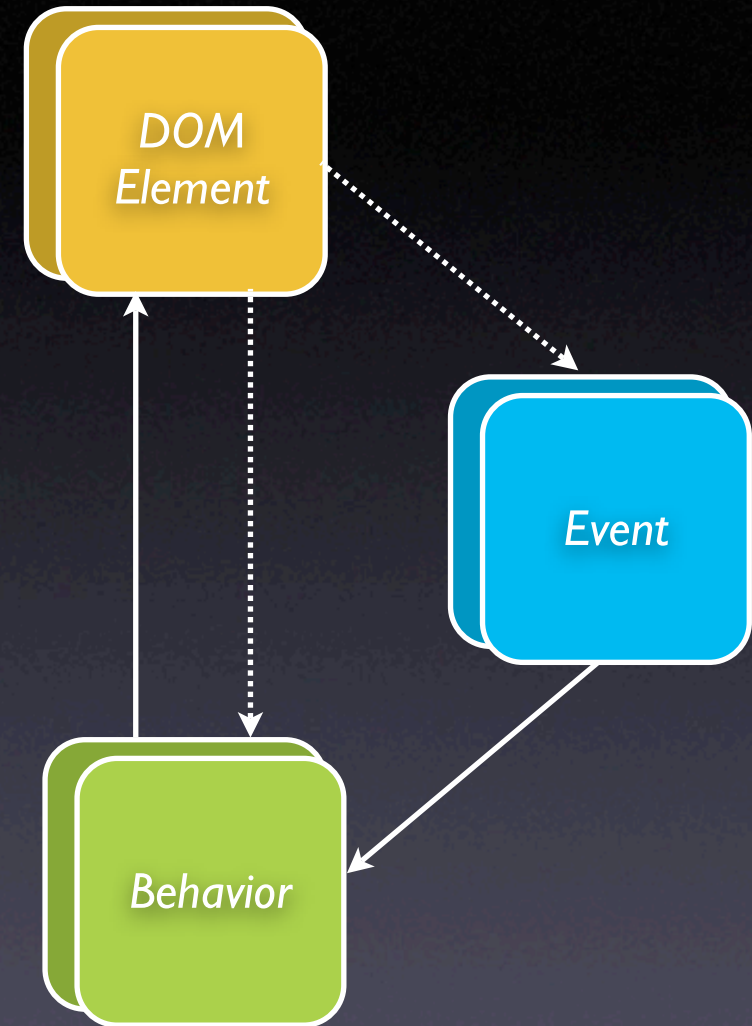
Events

Click
onClick (callback)

Handling Click for Multiple Elements

Files	Let's say you want to delete files from a list. You would like to embed the delete control with the filename.
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anatomy of self-healing delete

DOM elements

[X]

[X] oldmove.mov

Events

Click
onClick (callback)

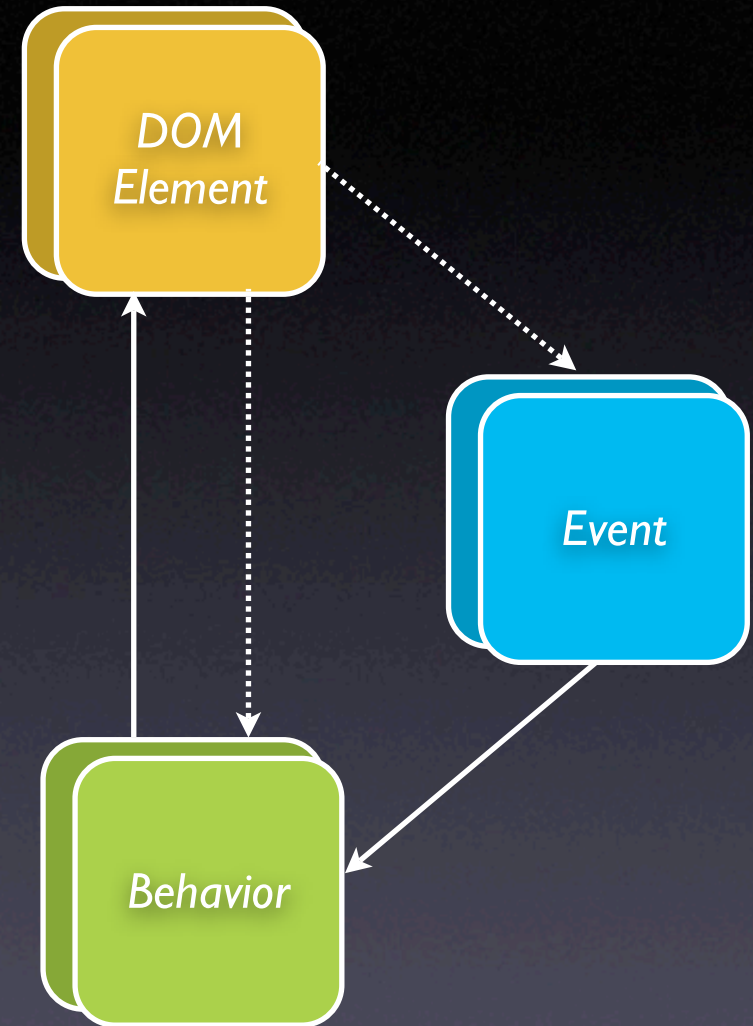
Behaviors

Fade
Close

Handling Click for Multiple Elements

Files	Let's say you want to delete files from a list. You would like to embed the delete control with the filename.
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The Fade & Close target the list of file names with 'multiple li' (all LI items in our multiple example). When you click on an individual delete control it knows the corresponding LI item and operates on it correctly. You can [click here](#) to restart the example.



protoscript code

```
<div id="multiple" class="example-live">
<p>Files</p>
<ul>
  <li><span><strong>[X]</strong></span><span>mystuff.tmp</span></li>
  <li><span><strong>[X]</strong></span><span>bigfile.tmp</span></li>
  <li><span><strong>[X]</strong></span><span>oldmovie.mov</span></li>
  <li><span><strong>[X]</strong></span><span>scrap.txt</span></li>
</ul>
</div>
```

Files

```
[X] mystuff.tmp
[X] bigfile.tmp
[X] oldmovie.mov
[X] scrap.txt
```

```
$proto('span:contains([X])', {
  SetStyle: {cursor:'pointer'},
  Click: {
    onClick: {
      Fade: {
        target: '#multiple li',
        opacity: {to: 0},
        onComplete: {Close : {} }
      }
    }
  },
});
```

Element

Behavior

Event

selecting dom elements (targeting)

Element

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Behavior

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Behavior

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Behavior

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```

Behavior

Event

chaining of target scope

```
<div id="multiple" class="example-live">
  <p>Files</p>
  <ul>
    <li><span><strong>[X]</strong></span><span>mystuff.tmp</span></li>
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chaining of target scope

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chaining of target scope

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chaining of target scope

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  </ul>
</div>
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  SetStyle: {cursor:'pointer'},
  Click: {
    onClick: {
      Fade: {
        target: '#multiple li',
        opacity: {to: 0},
        onComplete: {close: {}} }
      }
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});
```

Behavior

Event

chaining of target scope

Element

```
<div id="multiple" class="example-live">
<p>Files</p>
<ul>
<li><span><strong>[X]</strong></span><span>mystuff.tmp</span></li>
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```

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$proto('span:contains([X])', {
  SetStyle: {cursor:'pointer'},
  Click: {
    onClick: {
      Fade: {
        target: '#multiple li',
        opacity: {to: 0},
        onComplete: {close: {}} }
      }
    }
  },
});
```

Behavior

Event

selector syntax

Element

Consult jQuery docs:

http://docs.jquery.com/DOM/Traversing/Selectors#CSS_Selectors

If you are setting up your own prototypes, stick with class and identifier

```
.my-class-name
```

```
#my-id-name
```

Other useful examples

```
a:contains(Click Here)
```

```
.my-class-name #my-id-under-there
```

```
#my-specific-container .my-items
```

Consult CSS-1, CSS-2, CSS-3 and XPath

Behavior

Event

behaviors

Behavior

Animate. ColorAnimate. Fade.
Move. Spotlight. Close.
DragDrop. Hide. Open.
Popup. ReplaceClass. Script.
SetClass. SetStyle. Show.
ToggleClass. ToggleOpenClose.
ToggleShowHide. FetchHtml.
SetHtml.

Event

Element

behavior demos

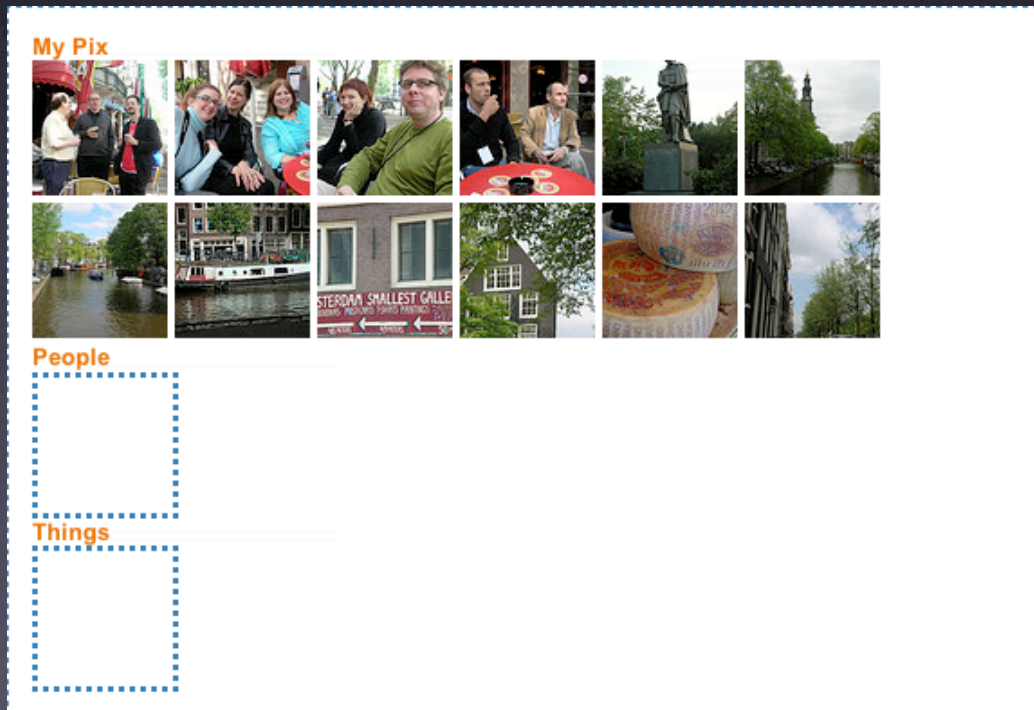
Behavior

Site has a demo page for each behavior

<http://protoscript.com/demos.php>

Site has a wiki with documentation page for each behavior

<http://docs.protoscript.com/>



Event

Element

behavior attributes

Behaviors may supply attributes for configuring the behavior

Where possible if an underlying YUI component or utility has a config object, this is exposed

EXAMPLE FROM Popup BEHAVIOR (bold denotes from Panel cfg)

```
close: true,
draggable: true,
underlay: 'shadow',
model: false,
visible: true,
effect: null,
monitorresize: true,
x: null,
y: null,
xy: null,
context: null,
fixedcenter: true,
width: '300px',
height: null,
zIndex: null,
constraintviewport: false,
iframe: false,
id: 'popup_panel',
hd: 'Panel Title',
bd: 'This is the body',
ft: null
```

plug-in behavior

Behavior

Protoscript core is independent of any single toolkit

selector is a plugin. *default set uses jQuery*

behavior set is plugged in. *default set uses YUI.*

```
ProtoScript.Core.registerBehaviorSet($, YAHOO.protoscript);  
(yui-proto.js)
```

You are free to create your own behavior sets or plug in other selector technologies

Example: Mootools selector & behaviors

```
ProtoScript.Core.registerBehaviorSet($ES, MooBehaviors);  
(moo-proto.js)
```

You can also add behaviors to the default set

Event

Element

peek under the hood of a behavior

Behavior

```
YAHOO.protoscript.Show = function (behaviorName, behaviorCfg) {
    this.init(behaviorName, behaviorCfg);
};
YAHOO.protoscript.Show.prototype = {
    defaultCfg : {
    },

    init: function(behaviorName, behaviorCfg) {
        this.name = behaviorName;
        this.cfg = ProtoScript.Core.applyConfig(this.defaultCfg, behaviorCfg);
    },

    action: function(currScope) {
        YAHOO.util.Dom.setStyle(currScope.elms, 'visibility', 'visible');
        if(this.cfg.onShow) {
            ProtoScript.Core.callBehaviors(this.cfg.onShow, currScope);
        }
    }
};
```

'Show' behavior

Event

Element

adding a behavior (to default YUI set)

Behavior

1. Add behavior to `YAHOO.prototype` namespace
2. In `init` store name & apply config parameters
3. In `action` put your behavior logic

The action performs the behavior

`action(currScope)`

`currScope.elms`: list of elems resolved from the current target scope

`currScope.idx`: if multiple elems, the index into the active element for this action

`currScope.pseudoElems`: some behaviors set dynamic elements (like `$drag`, `$drop` in `DragDrop` behavior).

4. For any interesting moments, call

`ProtoScript.Core.callBehaviors` to process the callback

5. Add attributes as needed (in your `defaultCfg`)
6. Start using it in your scripts

Event

Element

events

Event

Blur. Click. Dblclick. Focus.
Keypress. Mousedown.
Mousemove. Mouseout.
Mouseover. Mouseup. Timer.

Element

Behavior

events are actually behaviors

Event

```
YAHOO.prototype.Click = function(behaviorName, behaviorCfg) {
    this.init(behaviorName, behaviorCfg);
};
YAHOO.prototype.Click.prototype = {
    defaultCfg : {},
    init: function(behaviorName, behaviorCfg) {
        this.name = behaviorName;
        this.cfg = ProtoScript.Core.applyConfig(this.defaultCfg, behaviorCfg);
    },
    action: function(currScope) { YAHOO.prototype.Trigger(this.cfg,
currScope, 'click');}
};
```

'Click' behavior

Element

Behavior

callbacks

Event

onComplete. onTween. onStart. onClose.
onStartDrag. onDrag. onDragEnter. onDragOver.
onDragDrop. onDragOut. onEndDrag. onMouseUp.
onInvalidDrop. onBlur. onClick. onDbClick. onFocus.
onKeypress. onMousedown. onMousemove.
onMouseout. onMouseover. onMouseup. onTimer.
onHide. onOpen. onReplaceClass. onSetClass.
onSetStyle. onShow. onToggleClass.
onToggleOpenClose. onToggleShowHide.
onSuccess. onFailure. onSetHtml.

Element

Behavior

callbacks are interesting moments



Interesting Moments

Simply making an object draggable rarely suffices to achieve the desired interaction behavior for a drag-and-drop implementation. In most cases, Drag and Drop requires that you write code to respond to the interesting moments in the interaction: when the drag event starts, when the dragged object enters another object, and so on. The Drag and Drop Utility provides methods that fire during each of the interesting moments of the interaction. You customize your implementation by supplying the code for these methods (all of which are members of the `YAHOO.util.DD`, `YAHOO.util.DDProxy`, and `YAHOO.util.DDTarget`).

Moment	Description
<code>onMouseDown</code>	Provides access to the mousedown event. The mousedown does not always result in a drag operation.
<code>startDrag</code>	Occurs after a mouse down and the drag threshold has been met. The drag threshold default is either 3 pixels of mouse movement or 1 full second of holding the mousedown.
<code>onDrag</code>	Occurs every mousemove event while dragging.
<code>onDragEnter</code>	Occurs when the dragged object first interacts with another targettable drag and drop object.
<code>onDragOver</code>	Fires every mousemove event while over a drag and drop object.
<code>onDragOut</code>	Fires when a dragged object is no longer over an object that had the <code>onDragEnter</code> fire.
<code>onDragDrop</code>	Fires when the dragged objects is dropped on another.
<code>onInvalidDrop</code>	Fires when the dragged objects is dropped in a location that contains no drop targets.
<code>endDrag</code>	Fires on the mouseup event after a drag has been initiated (<code>startDrag</code> fired).
<code>onMouseUp</code>	Fires on the mouseup event whether or not a drag was initiated.

callbacks are invoked in behaviors

Event

```
YAHOO.protoscript.Open = function (behaviorName, behaviorCfg) {
    this.init(behaviorName, behaviorCfg);
};
YAHOO.protoscript.Open.prototype = {
    defaultCfg : {
    },

    init: function(behaviorName, behaviorCfg) {
        this.name = behaviorName;
        this.cfg = ProtoScript.Core.applyConfig(
            this.defaultCfg, behaviorCfg);
    },

    action: function(currScope) {
        YAHOO.util.Dom.setStyle(currScope.elms, 'display', 'block');
        if(this.cfg.onOpen) {
            ProtoScript.Core.callBehaviors(this.cfg.onOpen, currScope);
        }
    }
};
```

'Open' behavior invoking onOpen

Element

Behavior

Bookmarklet*

*humble beginnings

Search >>

- Blog
- User Reviews
- Editorial Reviews
- Scoring
- Directory (recent)
 - San Francisco (M)
 - Mountain View (M)
 - San Jose (M)
 - Los Angeles (M)
 - San Diego (M)
 - Chicago (M)
 - Boston (M)
 - more cities...
- Suggest
- Write A Review
- Articles
- About
- Press
- Store
- Links

Directory

Browse our directory of burrito places ([recently added](#))

[USA](#) > [California](#) > [Sunnyvale](#) ([show map](#))

Sort by: [A to Z](#) | [High Scores](#)

- [Burrito Factory](#) (no reviews) 1671 Hollenbeck Ave
- [Chavez Supermarket Taqueria](#) (7.2) 666 N Fair Oaks Ave
- [El Camino Mexican Restaurant](#) (7.0) 510 E El Camino
- [Garcia's Taqueria](#) (5.7) 738 S Fair Oaks Ave
- [Hot and Mild Taqueria](#) (6.5) 848 East Evelyn Ave
- [Las Islitas](#) (5.3) 848 E Evelyn Ave
- [Little Michoacan](#) (6.5) 305 N Fair Oaks
- [Senor Jalapeno](#) (6.0) 415 N Mary Ave # 117
- [Tacos Jalapa](#) (6.5) 154 W El Camino Real
- [Taqueria Latina](#) (8.0) 195 E Maude Ave
- [Tres Potrillos Taqueria](#) (no reviews) 670 S Fair Oaks Ave
- [Tres Potrillos Taqueria](#) (no reviews) 670 N Fair Oaks Ave
- [Una Mas \(Lawrence Expy\)](#) (5.5) 548 Lawrence Expy
- [Una Mas \(Sunnyvale Saratoga Rd\)](#) (no reviews) 725 Sunnyvale

Help us improve the directory.

Send your suggestions to [editors \[at\] burritophile.com](mailto:editors[at]burritophile.com).

Latest User Reviews

[La Borinquena Mexicatessen](#)

Oakland, CA

Protoscripser ✕

For elements matching:

Find

Do the following:

```

SetHtml: {
  html: '<span class="small">&nbsp;[X]&nbsp;</span>'
},
SetStyle: {
  cursor: 'move'
},
Click: {
  onClick: {
    target: 'ul.bulleted li',
    Fade: {
      duration: 1,
      onComplete: {
        close: { }
      }
    }
  }
}

```

Add Behaviors

Protoscript is a simplified scripting language for creating
View style prototypes for the Web. With Protoscript it's easy

Protoscripiter

For elements matching:

Find

Do the following:

```
Spotlight: {}
```

Add Behaviors

Protoscript is for prototyping. It's simple syntax makes it easy to sprinkle behaviors onto any web page.

Easy to query for interface elements

Uses jQuery. Plug-in architecture allows different selector plugins.

Simple to express complex dependent behaviors

Just nest behaviors within behaviors or callbacks.

Add new behaviors & events with plug-in architecture

Uses YUI library. Can be extended to use other Ajax frameworks.

You can play with the current version of protoscript with the ProtoScripter Bookmarklet.

For Firefox, drag this link [ProtoScripter](#) to your bookmarks toolbar. On IE right-click it and choose Add Favorite...

adding protoscript to your page

Download

- The protoscript library: [proto.js](#)
- The default behavior set (jQuery + YUI): [yui_proto.js](#)
- jQuery library: [jquery-1.1.3.1.js](#)

Default YUI + jQuery Behavior Set

Include the following in your page:

```
<!-- YUI Library -->
<script type="text/javascript" src="http://yui.yahooapis.com/2.3.0/build/utilities/utilities.js"></script>
<script type="text/javascript" src="http://yui.yahooapis.com/2.3.0/build/container/container-min.js"></script>

<!-- jQuery Library -->
<script type="text/javascript" src="scripts/jquery-1.1.3.1.js"></script>

<!-- Default Behavior Set - YUI -->
<script type="text/javascript" src="scripts/yui_proto.js"></script>

<!-- YUI CSS -->
<link rel="stylesheet" type="text/css" href="http://yui.yahooapis.com/2.3.0/build/reset-fonts-grids/reset-fonts-grids.css">
<link rel="stylesheet" type="text/css" href="http://yui.yahooapis.com/2.3.0/build/base/base-min.css">
<link rel="stylesheet" type="text/css" href="http://yui.yahooapis.com/2.3.0/build/container/assets/container.css">
```

Protoscript library

Include the following in your page:

```
<script type="text/javascript" src="scripts/proto.js"></script>
```

Code Repository - Subversion

The code repository for protoscript is located at [googlecode](#)

Protoscripiter Bookmarklet

You can play with the current version of protoscript with the ProtoScripiter Bookmarklet.

For Firefox, drag this link [ProtoScripiter](#) to your bookmarks toolbar. On IE right-click it and choose Add Favorite...

<http://protoscript.com/downloads.php>

syntax

\$proto(selector, interaction)

where:

selector is the jQuery selector syntax

interaction is a configuration object (JSON) describing the interaction

```
$proto('span:contains([X])', {
  SetStyle: {cursor:'pointer'},
  Click: {
    onClick: {
      Fade: {
        target: '#multiple li',
        opacity: {to: 0},
        onComplete: {Close : {} }
      }
    }
  }
});
```

syntax

\$proto(**config**)

single config object defines an interaction

convenient for passing interactions around or saving to config files

```
$proto(  
{  
  'span:contains([X])': {  
    SetStyle: {cursor:'pointer'},  
    Click: {  
      onClick: {  
        Fade: {  
          target: '#multiple li',  
          opacity: {to: 0},  
          onComplete: {Close : {} }  
        }  
      }  
    }  
  }  
}  
});
```

syntax

\$proto(**config**)

single config object defines an interaction

convenient for passing interactions around or saving to config files

```
var cfg = {'span:contains([X])': {
  SetStyle: {cursor:'pointer'},
  Click: {
    onClick: {
      Fade: {
        target: '#multiple li',
        opacity: {to: 0},
        onComplete: {Close : {} }
      }
    }
  }
};
$proto(cfg);
```

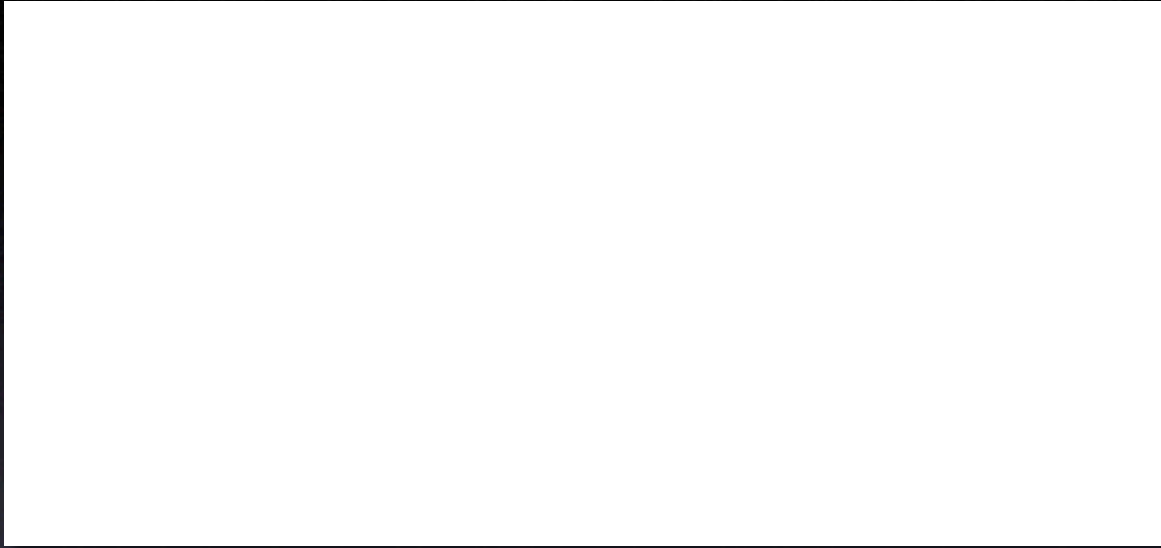

0.1 beta

- Live at <http://protoscript.com>
 - Started it last month
 - reference implementation YUI + jQuery
 - 31 behaviors (including events)
 - 40+ live examples
 - full wiki site with all behaviors documented (docs.protoscript.com)
- Open source
 - Code is at Google Code. Send me email if you want to participate will get you access to SVN trunk
 - BSD license
- Bookmarklet
 - Just hack to start experimenting with GUI
 - Combined with firebug, works ok
 - Right now best on Firefox

next steps

- 'You' write lots of behaviors
 - Wiki for docs
 - Google code for new behaviors & behavior sets
- New GUI tool
 - Most likely extend Firebug
 - Combine 'inspector' with behavior wizard to inject behaviors
 - Persist configurations for pages; allow re-load
- Flesh out behavior self-publishing
 - Will add spec on how to make behavior publish itself to a GUI tool

lego-style interaction builder



Animate
ColorAnimate
Fade
Move
Spotlight
Close
DragDrop
Hide
Open
Popup
ReplaceClass
Script
SetClass
SetStyle
Show
ToggleClass
ToggleOpenClose
ToggleShowHide
FetchHtml
SetHtml
Blur
Click
DbClick
Focus
Keypress
MouseDown
MouseMove
Mouseout
Mouseover
Mouseup
Timer

lego-style interaction builder

#avatar

[+ behavior](#) [edit](#) [\[x\]](#)

Animate
ColorAnimate
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lego-style interaction builder

```
#avatar + behavior edit [x]  
└─ Click + callback + behavior edit [x]
```

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lego-style interaction builder

#avatar [+ behavior](#) [edit](#) [\[x\]](#)

L Click [+ callback](#) [+ behavior](#) [edit](#) [\[x\]](#)

Modifier:

Delay:

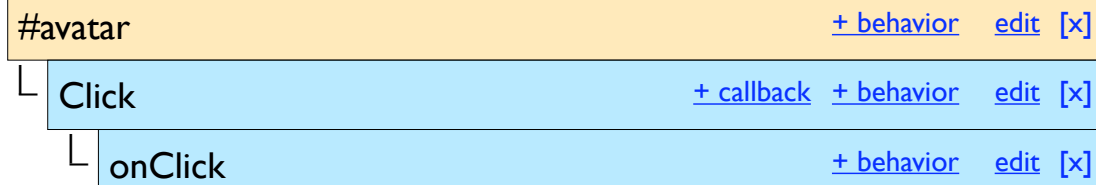
Animate
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lego-style interaction builder

```
#avatar + behavior edit [x]  
└─ Click + callback + behavior edit [x]
```

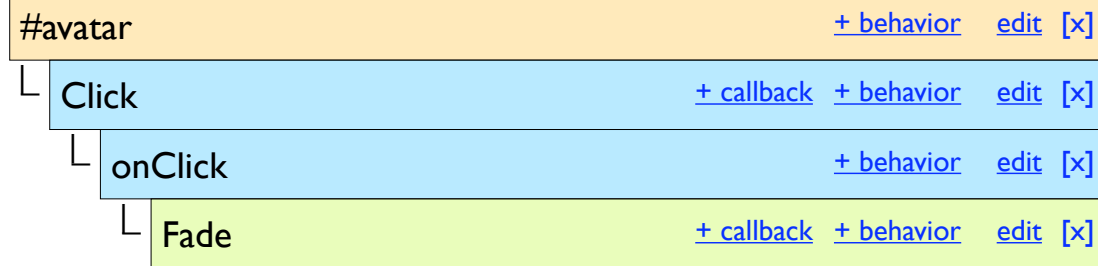
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FetchHtml
SetHtml
Blur
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DbClick
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lego-style interaction builder



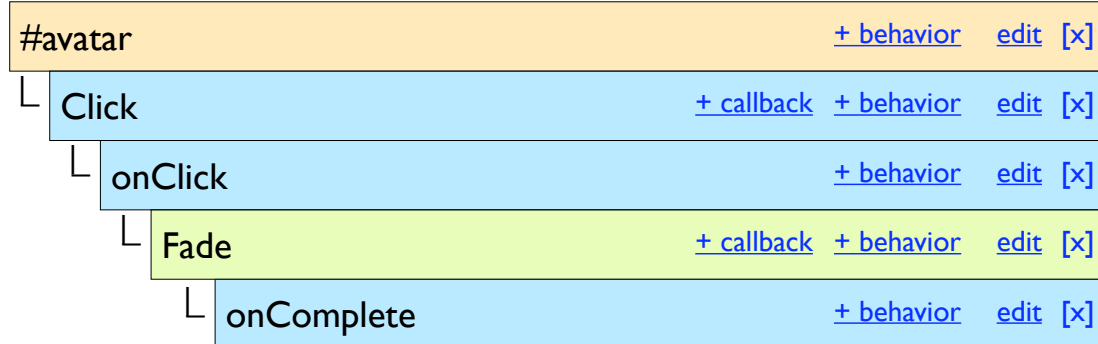
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FetchHtml
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lego-style interaction builder



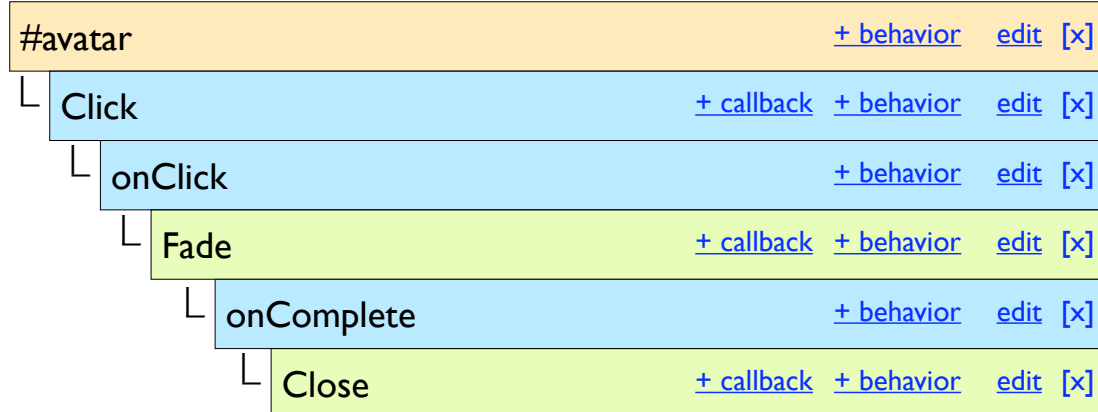
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lego-style interaction builder



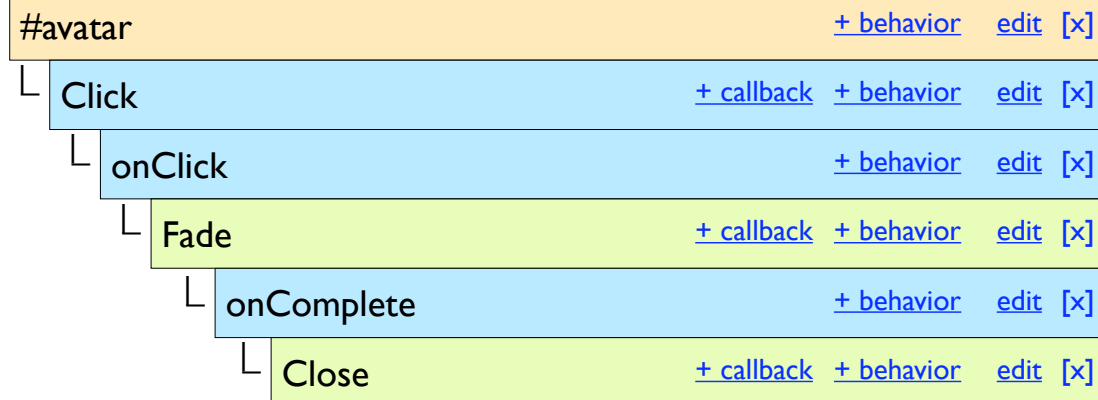
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lego-style interaction builder



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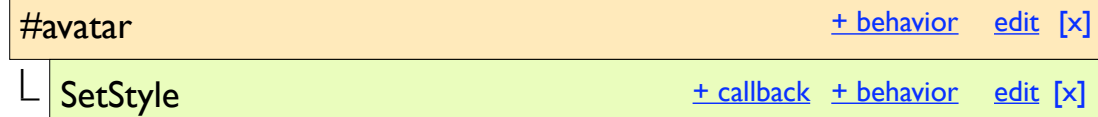
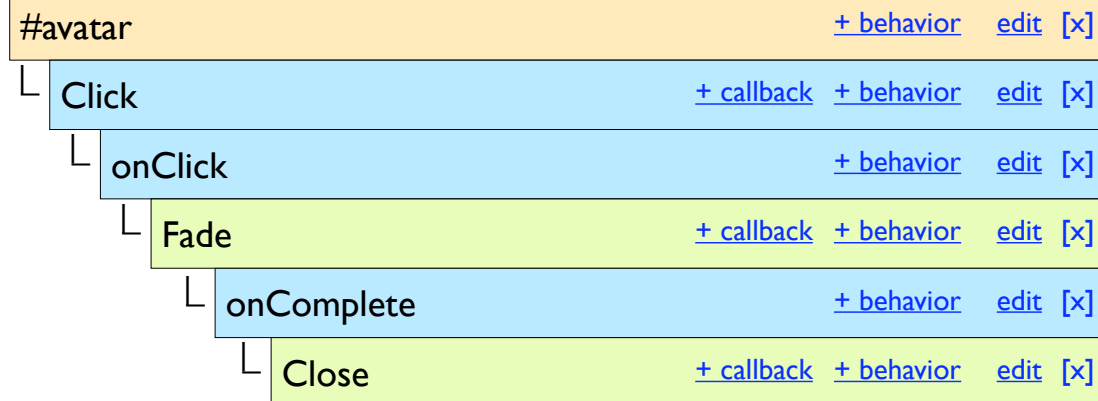
lego-style interaction builder



#avatar + behavior edit [x]

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lego-style interaction builder



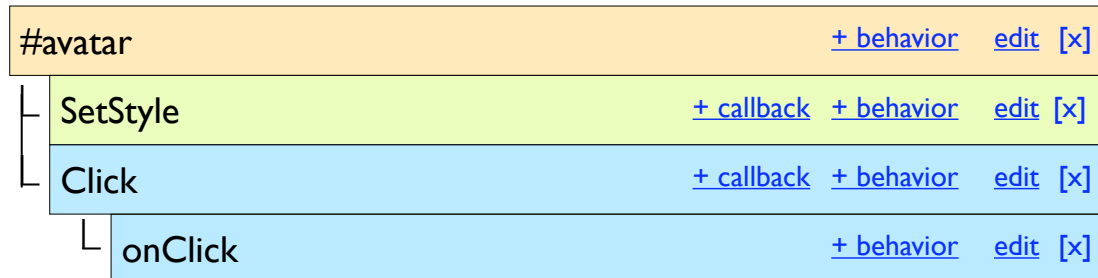
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lego-style interaction builder



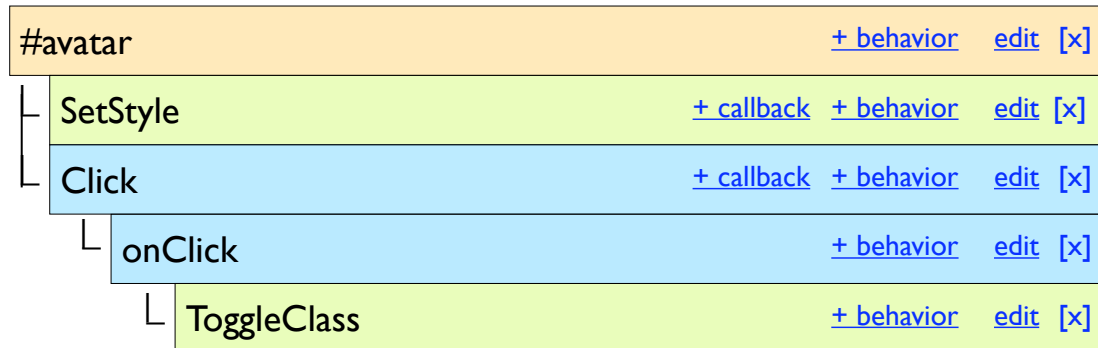
Animate
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lego-style interaction builder



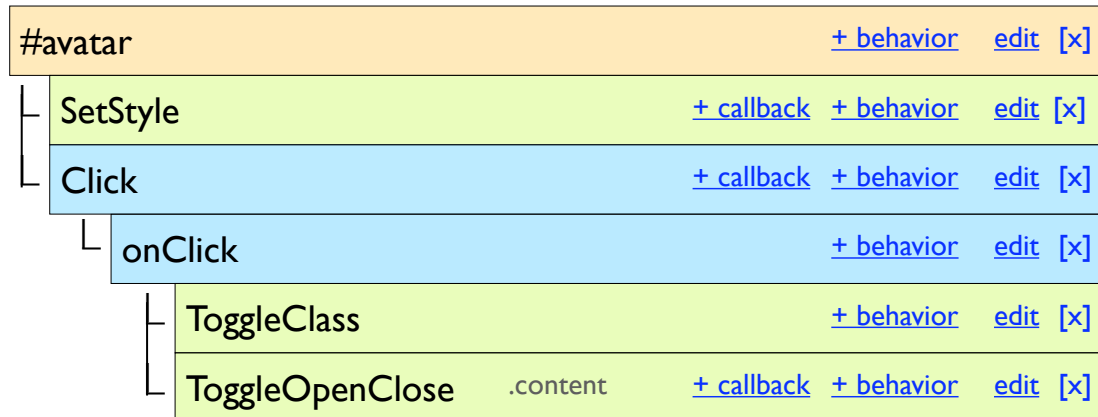
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lego-style interaction builder



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lego-style interaction builder



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- Mouseover
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useful approaches (inspiration)

- Responder
 - <http://www.boxpop.net/responder>
 - given a style class name, associate behavior with those objects
- jQuery
- LivePipe's Event.Behavior
 - http://livepipe.net/projects/event_behavior/
- Dustin Diaz, DED Chain
 - <http://dedchain.dustindiaz.com/>

useful approaches (inspiration)

- Transclusions
 - including html from somewhere else on your page
 - <http://ajaxian.com/archives/purple-include-transclusions-you-know-you-want-them>
- DOMDom
 - nice way to express HTML for Dom insertion
 - <http://www.zachleat.com/web/2007/07/07/domdom-easy-dom-element-creation/>
 - (merge with protokit)
- Magic DOM
 - <http://amix.dk/blog/viewEntry/19199>
- Jester. JavaScriptian REST
 - <http://giantrobots.thoughtbot.com/2007/4/2/jester-javascriptian-rest>
- JavaScript Templating Library: MJT
 - <http://mjtemplate.org/>

useful approaches (inspiration)

- moz-behaviors (dean.edwards.name)
 - <http://dean.edwards.name/moz-behaviors/intro/>
 - uses CSS Linking mechanisms
 - <http://www.w3.org/TR/becss>
- ClassAnim
 - <http://blog.mozmonkey.com/2007/classanim-hoverhijax-keeping-presentation-out-of-your-javascript/>
- JDA Emulator: Spring for JS
 - Adds properties to the HTML tags themselves
- Ben Nolan's Behavior Library
 - <http://www.ccs.neu.edu/home/dherman/javascript/behavior/>
 - <http://www.ccs.neu.edu/home/dherman/javascript/behavior/example.html>
 - Ben Nolan, Dave Herman, Simon Wilison
- Prototype Behavior Library (built on prototype.js)

more resources

Articles

Web 3.0 article: www.alistapart.com/articles/web3point0/

looksgoodworkswell.blogspot.com/2005/11/visio-wireframe-toolkit-for-download.html

looksgoodworkswell.blogspot.com/2005/11/animating-interactions-with-photoshop.html

Prototyping with PowerPoint: blogs.msdn.com/jensenh/archive/2006/02/20/535444.aspx

Visio - the interaction designer's nail gun: http://www.guui.com/issues/01_06.php

PDF Prototyping: http://www.gotomedia.com/gotoreport/may2005/news_0505_usable1.html

Products

www.axure.com/demo.aspx

iRise Application Simulator: irise.com

Visio Stencils

www.boxesandarrows.com/view/storyboarding_rich_internet_applications_with_visio

Visio Stencil Library: swipr.com

Wireframe Stencils: <http://iainstitute.org/tools/>

Garrett Dimon's Stencils: <http://www.garrettdimon.com/resources/templates-stencils-for-visio-omnigraffle>

site - <http://protoscript.com>
blog - <http://looksgoodworkswell.com>

presentation - <http://billwscott.com/share/presentations/2007/rwe>