



Designing software
that works - for everyone

Open Source Design Pattern Library

Spreading Communities Thick: Open Source Communities of Practice

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May 7, 2008

Agenda

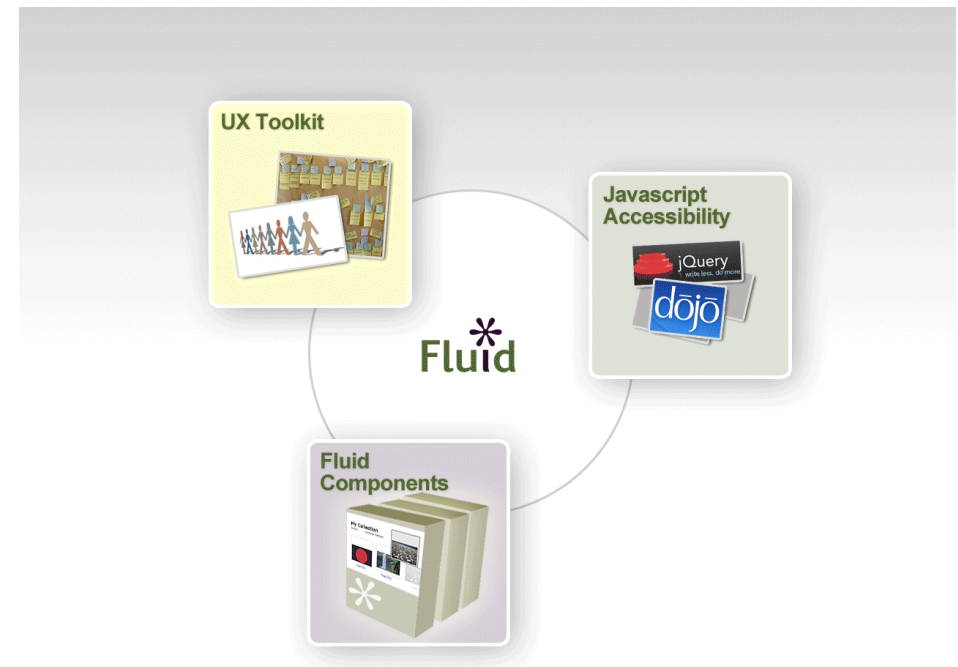
- The context: the Fluid Project
- Fluid components & UX Toolkit
- User interface design patterns
- Open Source Design Pattern Library
- Building the OSDPL in Drupal
- Pattern library issues
- Getting involved with Fluid

What is the Fluid Project?

- “an open, collaborative project to improve the user experience of community source software”
- Cross-project collaboration:
 - [Kuali Student](#), [Moodle](#), [Open Collection](#), [Sakai](#), [uPortal](#)
- Combine both design and technology to create a living library of sharable user interface components & design tools
- Addressing issues of usability, accessibility, internationalization, security, flexibility & customization
- Open and distributed community

What are we building?

- Rich, flexible, reusable user interface components
- Lightweight JavaScript development tools
- User Experience Toolkit
- Great Interaction Designs



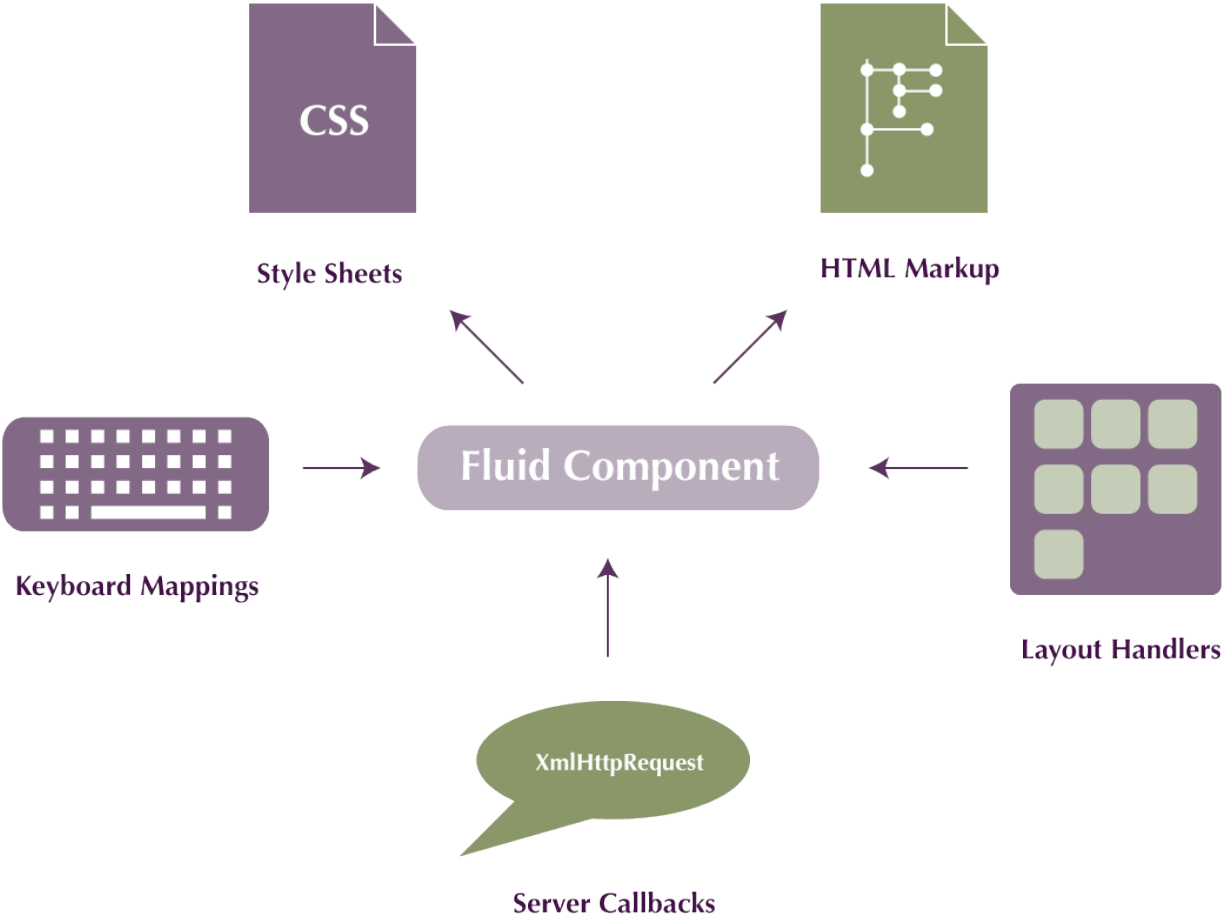
What is a Fluid component?

- Client-side:
 - HTML
 - Style sheets
 - JavaScript for behavioural logic
 - Accessibility metadata
- And on the server-side:
 - Binding conventions: markup with known, formal IDs
 - Ability to respond to RESTful requests
 - Ability to deliver the appropriate markup or data



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Component Composition



The Reorderer

- A set of JavaScript objects
- Used to create rich, accessible user interfaces that **allow users to directly move around and rearrange content on the page**
- Features
 - Supports mouse-based drag and drop as well as fully keyboard-accessible controls
 - Designed to be flexible and will handle a variety of markup and layout type
 - Clear extension points are provided to customize its behavior for new layouts, connection strategies, and markup binding strategies

The Lightbox

11/17

Gallery Collections

- [arks](#) (5)
- [wich Village](#) (6)
- [yscrapers](#) (9)
- [ork City \(all\)](#) (27)
- [Manhattan](#) (11)

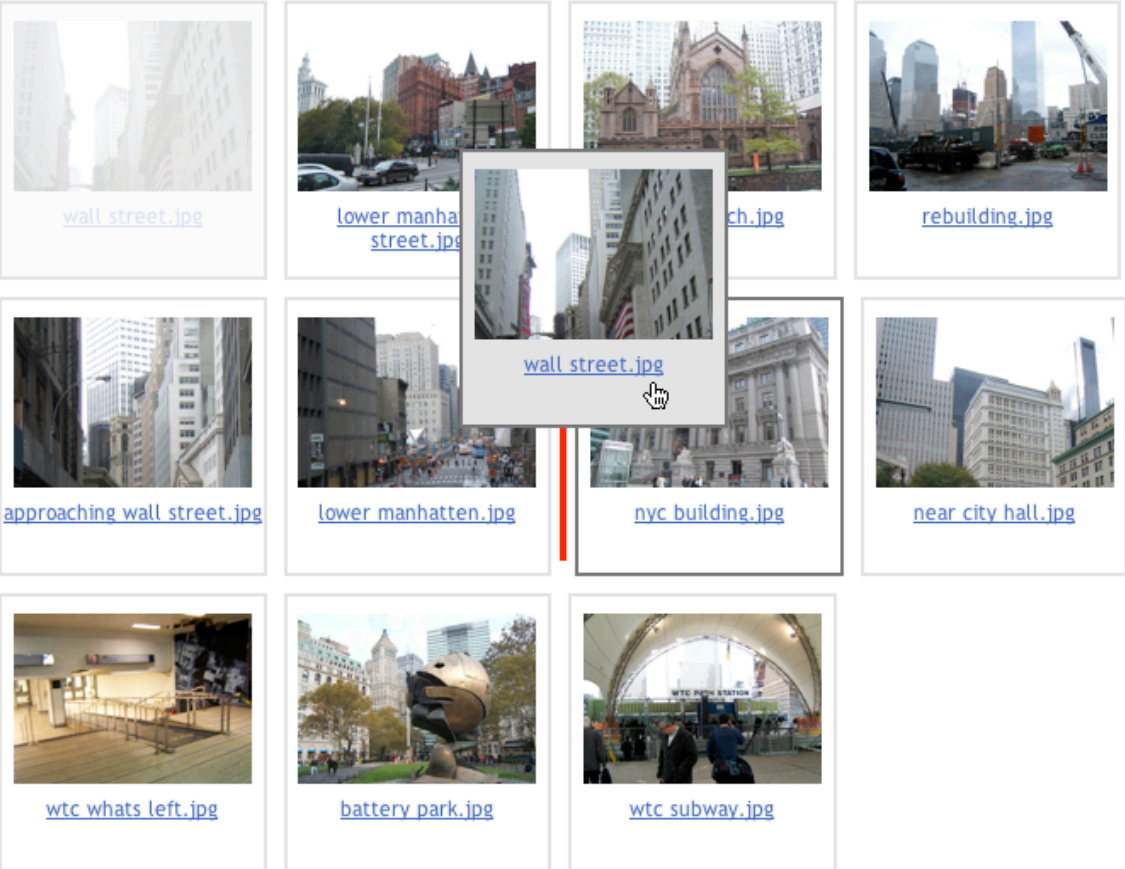
a collection, go to the
es tool and create a folder
collection in your "Image
Collections" folder.

Lower Manhattan Collection

[Start Slide Show](#)

Sort order Instructor default Alphabetical

View an image by pressing Enter. Move an image u
CTRL+Arrow Key.



Layout Customizer

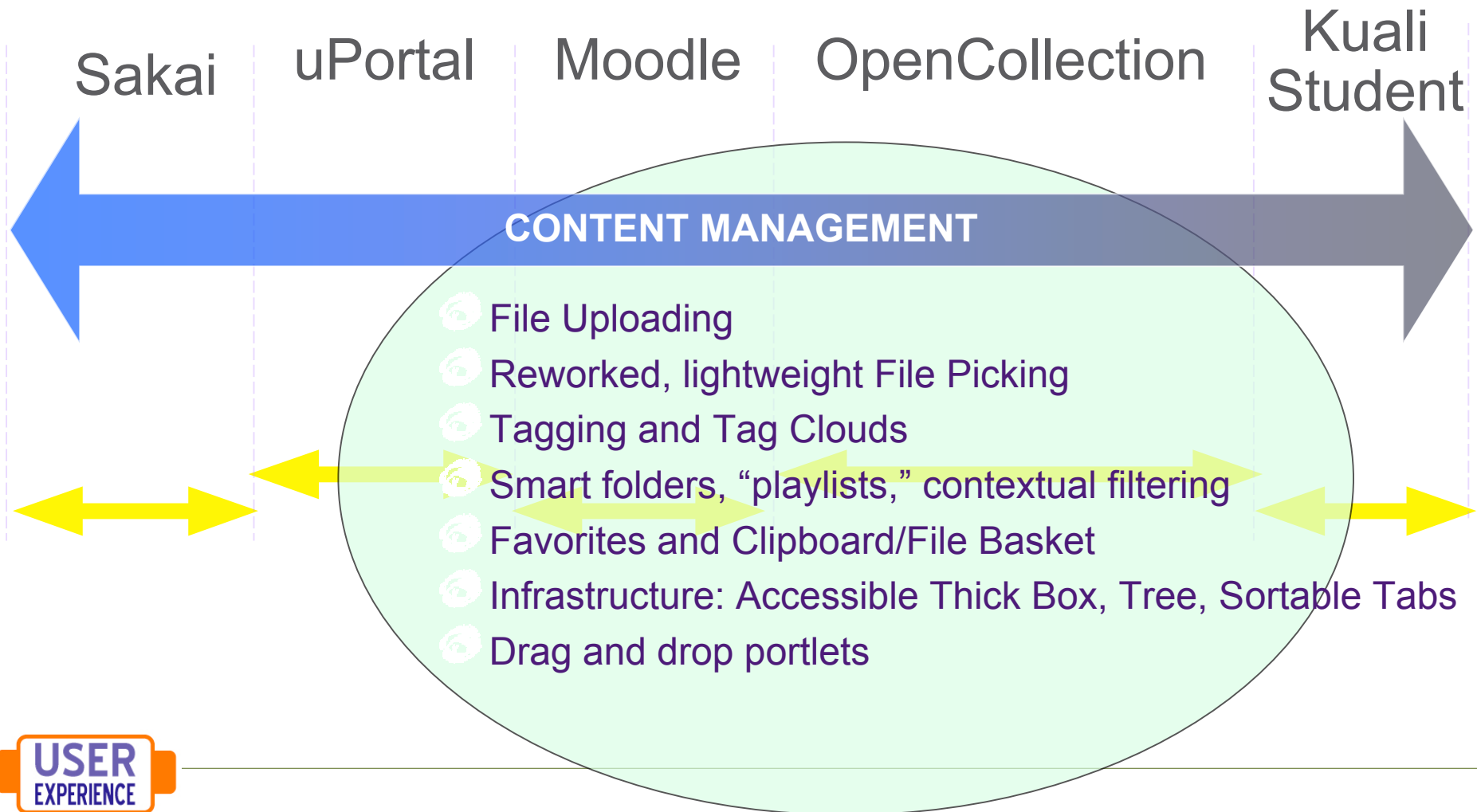


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A screenshot of the uPortal layout customizer interface. At the top left is the uPortal logo with the text "POWERED BY JASIG". To its right, it says "Hello Sample Student. Sign Out". On the far right of the top bar are icons for calendar, email, music, and a printer, along with an "EDIT" button. Below this is a horizontal navigation menu with tabs: "Main Page" (selected), "My Classes", "uPortal Central", "Personal", "Email & Calendar", and "Administration". The main content area is titled "Main Page" and includes sub-headers "ADD CONTENT", "EDIT LAYOUT", "MANAGE TABS", and "CHANGE STYLE". The layout consists of several widgets: "My Bookmarks" (with a close button and a list of items), "My Calendar" (with a close button), "Campus News & Events (RSS)" (with a lock icon and a large blue area), and "Local News (RSS)" (with a close button and a large light blue area). A central vertical stack of four diamond-shaped icons and a four-way arrow icon are positioned between the "My Bookmarks" and "My Calendar" widgets.



Breaking down barriers, addressing cross-cutting needs



Some open questions...

- How can I incorporate Fluid components into my interface in a way that improves the user experience?
- How can I design usable and understandable user interfaces and interactions?
- How can I design user interfaces and interactions that reflect best practices?
- How can I create a user experience that will delight my users?

The Fluid Approach to UX in Community Source



- UX is a challenge for all open source projects and all institutions
- Cross-project collaboration:
 - Share scarce UX resources across projects
 - Solve common challenges
 - Recognize recurring user interface idioms and needs
- Fluid is looking at common problems:
 - How do non-technical people get involved in OSS?
 - How can we help designers and developers speak the same language?
 - How do you do user testing in a distributed environment?

UX Toolkit

- User Research Tools
 - Contextual Inquiry
 - Persona development
- UI Design Patterns
 - Open Source Design Pattern Library
 - Shared design advice and guidance on using components
- UX Walkthroughs
 - Tools for assessing your user experience
- User testing techniques and guidelines
 - How to test your designs and talk to users
- User profile library
 - Understanding higher education users and beyond
- All the stuff you need to design great interfaces!

User interface design patterns



Open Source Design Pattern Library

 Search

Home :: UI Design Patterns :: Content Management

Find a pattern

- UI Design Patterns
 - Content Management
 - Forms
 - Information Organization
 - Navigation
 - Profile Management
 - Search

My options

- Contact OSDPL
- Create content
- Recent posts
- My account
- Administer
- Log out

Who's online

There are currently 2 users and 0 guests online.

File Upload

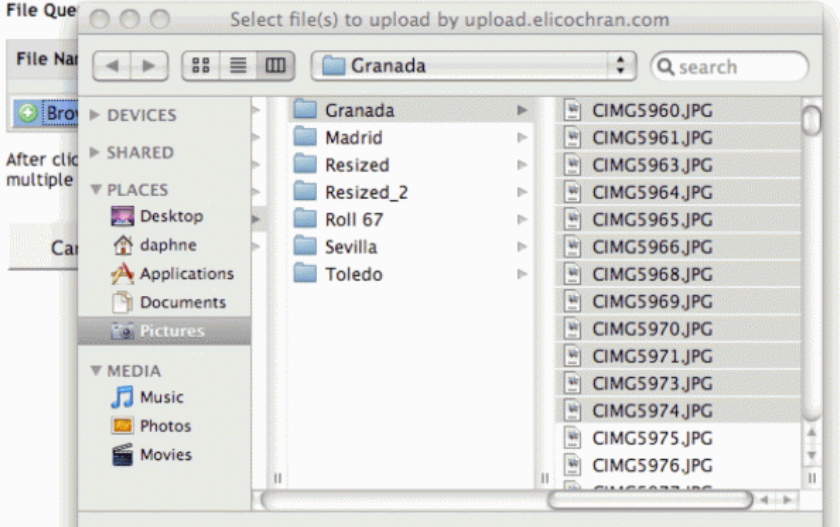
View Edit

Posted April 28th, 2008 by Eli Cochran in Content Management

Solution Image

Solution Image:

Upload images from your Computer to All Images



Rate this pattern

Average: ☆☆☆☆☆ No votes yet

Tag this pattern

All tags: content management file upload Flash progress

My tags: Add Example: funny, bungee jumping, "Company, Inc."

Popular pattern tags

content management drag and drop file upload Flash forms layout list progress reorder more tags

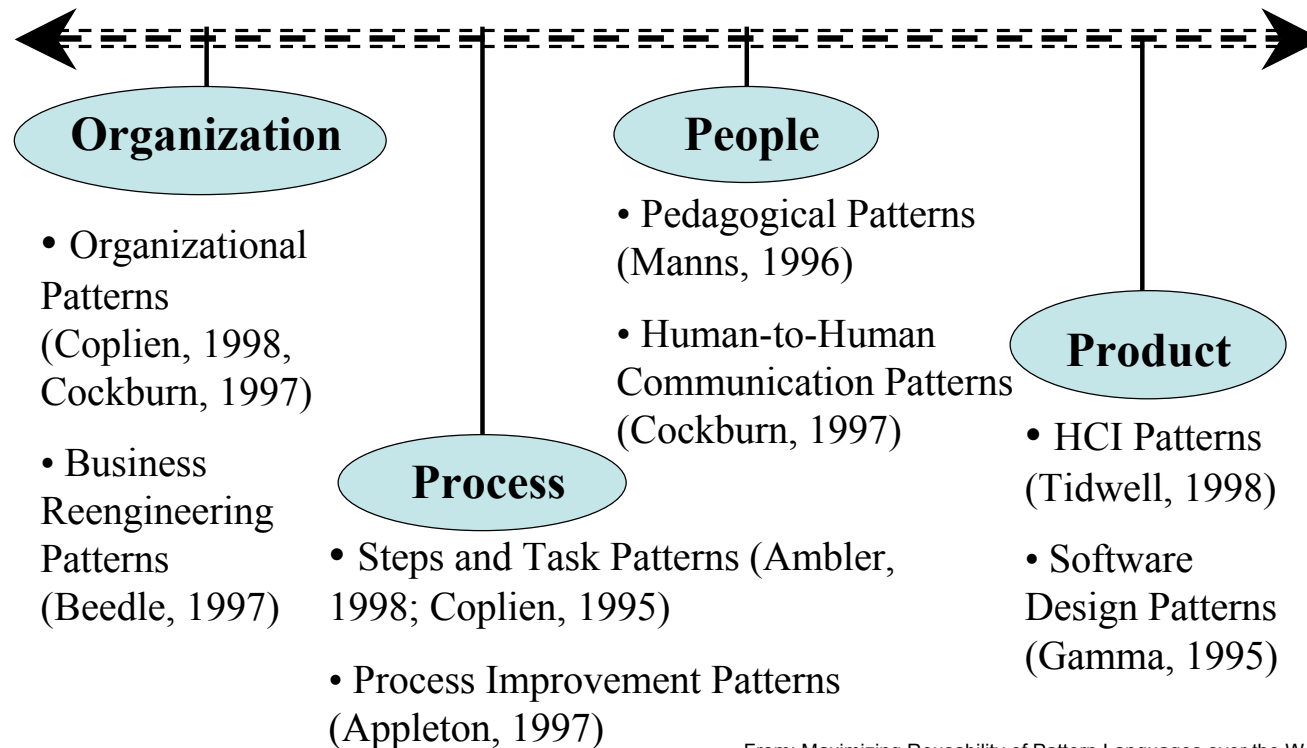
What is a pattern?

- A pattern is a *proven solution* to a *common problem* in a *specified context*
- There may be many different (physical) representations of each pattern
- “Each pattern is a three-part rule, which expresses a relation between a certain context, a problem, and a solution” [Christopher Alexander 1979].

Software Engineering Patterns



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From: Maximizing Reusability of Pattern Languages over the Web,
Homa Javahery, www.cusec.net/archives/2002/javahery.ppt

Why use design patterns?

- Make it easy to choose the best component or design solution for the job
- Innovation is reserved for situations where it's really necessary
- Patterns hold more complex design knowledge than guidelines because they describe context & rationale

UI Design Pattern Libraries - Tidwell



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UI Patterns and Techniques

Introduction About Patterns

Organizing the Content
**Overview Plus Detail
Hub and Spoke
Extras On Demand
Step-by-Step Instructions
One-Window Drilldown
Intriguing Branches
Multi-Level Help**

Getting Around
Clear Entry Points
**Toplevel Navigation
Color-Coded Divisions**
Animated Transition
Detail View Navigation

Organizing the Page
**Visual Framework
Center Stage
Titled Sections
Card Stack
Closable Panels
Movable Pieces
Progressive Disclosure**
Progressive Enabling
**Property Sheet
Diagonal Balance
Liquid Layout**

Getting Input From Users
Good Defaults
**Forgiving Format
Fill-in-the-Blanks
Input Hints
Input Prompt
Dropdown Chooser
Remembered Choices
Illustrated Choices**

Showing Complex Data

Introduction

This web site is moving! The patterns have been updated to match the book, and you can find them at the following URL:

<http://designinginterfaces.com>

This site will stay up through part of 2006, but it will eventually be retired. Please change your links. Thanks!

"Designing Interfaces: Patterns for Effective Interaction Design" can now be ordered from Amazon. The book contains 90+ patterns (including updated versions of the ones you see here), over 300 full-color illustrations, and additional reference material and design advice.



There's nothing new here.

If you've done any Web or UI design, or even thought about it much, you should say, "Oh, right, I know what that is" to most of these patterns. But a few of them might be new to you, and some of the familiar ones may not be part of your usual design repertoire.

Each of these patterns (which are more general) and techniques (more specific) are intended to help you solve design problems. They're common problems, and there's no point in reinventing the wheel every time you need, say, a sortable table – plenty of folks have already done it, and learned how to do it well. Some of that knowledge is written up here, in an easily-digestible format.

By the way, when I say "UI," I mean Web sites, desktop applications, and everything in between (Web forms, Flash, applets, etc.). I believe that over the next few years, Web applications will become more richly interactive than they are now, and the smartest Web designers will use the desktop world's hard-won knowledge of how to design good interactive software. Likewise, desktop applications will gradually look more like Web sites, with better graphic design and more Web-style navigation. I will make no assumptions about how or when they will converge – they may not, ultimately – but stylistically, there is some common ground already. Thus, you will see examples from both worlds in here.

These patterns are intended to be read by people who have some knowledge of UI design concepts and terminology: dialogs, selection, combo boxes, navigation bars, whitespace, branding, and so on. It does not identify many widely-accepted techniques such as copy-and-paste, as you probably already know what they are. But, at the risk of belaboring the obvious, some common techniques are described here to encourage their use in other contexts – for instance, desktop apps could make better use of Toplevel Navigation – or to discuss them alongside alternative solutions.

(Many of these patterns were originally written by other people in the field. Where appropriate, authors are credited in the pattern descriptions.)

If you're running short on ideas, or hung up on a difficult design quandary, read over these and see if any of them are applicable. And don't take them as the gospel truth, either – what matters is whether your design works for your users.

If these are useful to you, please tell me. If not, or if you have anything to add, tell me that too.

Jenifer Tidwell
jtidwell @ alum.mit.edu

**USER
EXPERIENCE**

<http://www.time-tripper.com/uipatterns/>

UI Design Pattern Libraries - van Welie



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Home Patterns **Visio stuff**

Pattern library

All patterns are listed here. It's quite a bunch of them, but I have tried to group them meaningfully.

User needs

Patterns that meet a direct need of the user.

Navigating around <ul style="list-style-type: none">· Accordion· Headerless Menu· Breadcrumbs· Directory Navigation· Doormat Navigation· Double Tab Navigation· Faceted Navigation· Fly-out Menu· Home Link· Icon Menu· Main Navigation· Map Navigator· Meta Navigation· Minesweeping· Panning Navigator· Overlay Menu· Repeated Menu· Retractable Menu· Scrolling Menu· Shortcut Box· Split Navigation· Teaser Menu· To-the-top Link· Trail Menu· Navigation Tree	Searching <ul style="list-style-type: none">· Advanced Search· Autocomplete· Frequently Asked Questions (FAQ)· Help Wizard· Search Box· Search Area· Search Results· Search Tips· Site Index· Site Map· Footer Sitemap· Topic Pages Dealing with data <ul style="list-style-type: none">· Carousel· Table Filter· Details On Demand· Collector· Inplace replacement· List Builder· List entry view· Overview by Detail· Parts Selector· Tabs· Table Sorter· Thumbnail· View	Shopping <ul style="list-style-type: none">· Booking· Product Comparison· Product Advisor· Product Configurator· Purchase Process· Shopping Cart· Store Locator· Testimonials· Virtual Product Display Making choices <ul style="list-style-type: none">· Country Selector· Date Selector· Language Selector· Poll· Rating Giving input <ul style="list-style-type: none">· Comment Box· Constraint Input· Form Miscellaneous <ul style="list-style-type: none">· Footer Bar· Hotlist· News Box· News Ticker· Send-a-Friend Link
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Basic interactions

- [Action Button](#)

Suggest a pattern

Have you seen new examples of patterns out there that have not been described on this site? Send me a link to an example and I'll add it to my to-do list.

→

Latest comments


[Web-based Application \(munah\)](#)
i don't understand what you say.i want definition,example,function of web-based ...

[News Ticker \(Terence Cyril Iahova\)](#)
I agree

[Doormat Navigation \(Vitaly\)](#)
May everyone use this type navigation for tour-site? Divide homepage into se...

[Outgoing Links \(Marcin Szuba\)](#)
How about external links should be opened in a new tab or window and they be des...

[Icon Menu \(Kjell Bublitz\)](#)
I think that icons at that size (and as seen in the screenshot) can be easily mi...

 RSS



<http://www.welie.com/patterns/index.php>

UI Design Pattern Libraries - Yahoo!



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Developer Network Home Help Site Search Search

YAHOO! DEVELOPER NETWORK

Design Pattern Library

Yahoo! Developer Network > Design Pattern Library

USER NEEDS TO

- SEARCH
 - Search Pagination
- NAVIGATE
 - Breadcrumbs
- Links
 - Alphanumeric Filter Links
- Tabs
 - Module Tabs
 - Navigation Tabs
- READ
 - Page Grids
- Pagination
 - Item Pagination
 - Search Pagination
- SELECT
 - Auto Complete
 - Calendar Picker
- INTERACT
 - Invitation
 - Cursor Invitation
 - Drop Invitation
 - Tool Tip Invitation
 - Hover Invitation
 - Transition
 - Animate
 - Brighten
 - Collapse
 - Cross Fade

Welcome

Welcome to the Yahoo! Design Pattern Library. We've just reorganized the navigation scheme for our patterns (see the link tree on the left side of this page), and we welcome feedback and other comments. The most recent pattern released is [Vote to Promote](#).

We're thrilled to be sharing patterns and code with the web design and development community, hope it's useful, and look forward to your [feedback](#).

What's a Pattern?

A pattern describes an optimal solution to a common problem within a specific context. [more...](#)

Recent Patterns [see all...](#)

<p>Alphanumeric Filter Links The user needs the ability to look up information alphabetically within a large data set.</p>	<p>Animate Transition Designer needs to communicate that an object is changing its spatial relationship within the page.</p>	<p>Calendar Picker User wants to find or submit a particular piece of information based on a date or between a date range.</p>
<p>Collapse Transition The designer needs to communicate that an object is no longer of primary importance.</p>	<p>Drop Invitation Designer needs to indicate valid candidate drop sites during a drag and drop operation.</p>	<p>Expand Transition Designer needs to show the detail of an object in its context or reveal a previously collapsed object.</p>

<http://developer.yahoo.com/ypatterns/>

Open source design pattern library



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Open Source Design Pattern Library

Find a pattern

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My options

- Contact OSDPL
- Create content
- Recent posts
- My account
- Administer
- Log out

Who's online

There is currently *1 user* and *1 guest* online.

Online users

Home

in

Welcome to the Open Source Design Pattern Library!

The Library is a place for communities to create, collaborate on, and share their open source user interface design patterns. Our current members include the communities involved in the [Kuali Student](#), [Moodle](#), [Open Collection](#), [Sakai](#), & [uPortal](#). If you are interested in sharing your design patterns, please [Contact us](#).

A design pattern was described by architect Christopher Alexandar as a "proven *solution* to a common *problem* in a specified *context*." Application designers and developers can use user interface design patterns to create usable, high-quality user interfaces that are most helpful and appropriate in a particular situations.

Much more information on design patterns can be found on the [Design Patterns](#) section of the Fluid Project wiki.

» [Printer-friendly version](#) |

Popular pattern tags

content management: [drag and drop](#) file upload [Flash forms](#) [layout](#) list progress reorder [more tags](#)

OSDPL News

OSDPL kick-off meeting: Wednesday, May 7th 3pm PDT

Posted April 29th, 2008 by [pattern_admin](#) in

Join us for the Open Source Design Pattern Library kick-off meeting on Wednesday, May 7th at 3pm PDT/6pm EDT/Thursday at 8am Australia Eastern on Fluid's Breeze teleconference server (<http://breeze.yo>)



Pattern example: Drag & Drop



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Interesting Moment	Example Visual Cue for Mouse	Example Visual Cue for Keyboard
Page Loaded	Items shown as a list, grid, or other arrangement. Provide some sort of graphic drag affordances or textual description that tell the user dragging is possible.	Same as for mouse.
Mouse Hover	Container border is highlighted and cursor changes from arrow to "hand."	N/A
Keyboard Select	N/A	User tabs to the draggable section, and the first item is selected. This is equivalent to the mouse "hover" action. Provide the user with a stronger visual cue than the one used for mouse "hover" to indicate that an item is actually selected (e.g, container border is highlighted and object is in a gray frame).
Mouse Down	Enter "drag" mode. A visual indicator that the user is in a new mode may also be given (e.g. changing item to half-tone).	N/A
Control-Key Down	N/A	While the user is holding down the "Control" (CTRL) key, they are in "drag" mode. Item changes to half-tone to give the user a visual indicator that they are in a new mode.
Mouse Up	The user is no longer in drag mode. If the user was in the process of dragging an item, this completes the drag action.	N/A
Control-Key Up	N/A	The user is no longer in drag mode. If the user was in the process of dragging an item, this completes the drag action.

Building the OSDPL in Drupal



- Open-source, complete content management system
- Provides flexibility in presentation and repurposing of content
- Hundreds of user-contributed modules
 - Tagging - tagadelic & community tags
 - Ratings - fivestar & voting api
 - Workflow & notifications - workflow & actions
 - Role-based permissions - Drupal core
 - User profiles - Drupal core
 - Versioning - Drupal core
 - Customizable views - cck & views
 - Auto-generated navigation - taxonomy menu
 - Re-sizing of images - image cache
 - WYSIWYG editor - tinymce

General pattern library

Issues



- What is the right granularity for a pattern?
- How many organizations can/should we serve?
- What is the relationship between design patterns & a style guide?
- How can we organize the information in the pattern library so users can easily find relevant patterns?
 - Hierarchy, search, tags
- How do we interact with/borrow from other pattern libraries?
 - Use mark-up language to facilitate reuse (e.g. PLML)?

Building a pattern library community



- How are patterns contributed, edited, and moderated?
 - Do we need a 'staging area' before releasing in process patterns?
- Should patterns be general and apply to everyone, or customized for each community?
- How can we encourage contributions and at the same time ensure the quality of the patterns remains high?
- How can we ensure the library grows, evolves, & lives on?
- Join us for our kick-off meeting Wednesday, May 7th at 3pm PDT/6pm EDT on Fluid's Breeze teleconference server:
<http://breeze.yorku.ca/fluidwork>

Possible future direction

- Limited moderation combined with mentoring of pattern authors
- User ratings drive pattern popularity
- Personal tags, allowing for customized organization
- Dynamic generation of relevant examples (e.g. uPortal) based on user profiles

Get involved with Fluid!

- Come to the JA-SIG uCamp on Wednesday!
- Use & share design patterns - <http://osdpl.fluidproject.org>
 - First meeting of design patterns group: Wed, May 7th 3pm PDT
 - Read more about design patterns:
<http://wiki.fluidproject.org/display/fluid/Design+Patterns>
- Check out the UX toolkit:
<http://wiki.fluidproject.org/display/fluid/UX+Toolkit>
- Use & extend Fluid components in your applications:
<http://wiki.fluidproject.org/display/fluid/Components>
- Join our mailing lists
 - [fluid-work@](mailto:fluid-work@berkeley.edu) for community collaboration
 - [fluid-talk@](mailto:fluid-talk@berkeley.edu) for anything you're interested in
- My contact info:
 - Allison Bloodworth, abloodworth@berkeley.edu