Fluid Project Highlights

Project Highlights to Date

- Established a strong community of expertise and interest in usability and accessibility in the open/community source environment
- Significant education and outreach activities: four U-Camps to date, as well as presentations and evangelism
- Created a Design Handbook to help open source communities improve user experience:
  - UX Walkthroughs, to help assess usability and accessibility
  - UI design patterns: advice and guidance on building effective user interfaces
  - User testing techniques and advice
- Worked with many communities to help with usability, accessibility, and JavaScript development requirements
- Pioneered new interactions for accessible drag and drop
- Created the Lightbox and Layout Customizer components and integrated them into several applications
- Established several primary strategies for the Fluid framework, including:
  - Unobtrusive, markup-driven components
  - Portal-safe markup binding
  - Keyboard navigation plugins
  - Support for multiple versions
- Released Fluid 0.1, including a diverse package of components, sample code, and documentation

Milestones and Deliverables

Community

- Established all of the communication infrastructure required by a health open source community:
  - Wiki
  - Issue tracker
  - Source code repository
  - Mailing lists
  - Continuous integration
  - Videoconferencing
  - Defined a comprehensive project roadmap, release plan, and component design strategy
  - Defined and implemented community procedures:
    - Security process
    - Commit access and voting
    - Licensing and contributor agreements

Design Handbook and Design

- User Experience Walkthroughs
  - Comprehensive protocols, checklist, and advice on how to do a UX Walkthrough
  - Substantial walkthroughs of Sakai, uPortal, and Moodle, including accessibility evaluations
  - Mentored the communities in doing their own UX Walkthroughs
- Contributed to the W3C's DHTML Style Guide working group, to help establish conventions for keyboard accessibility
- User interface design patterns
  - Created three new UI design patterns related to drag and drop
  - Established plan for the Open Source Design Patterns Library, the first truly open and collaborative repository for UI design patterns
  - Collaborated with other communities and industry partners on design pattern best practices
- Defined user testing and contextual inquiry procedures

Components

- Designed and developed the first Fluid component, the Lightbox
  - Integrated into the Sakai Image Gallery tool and the ATutor gallery module
- Designed and implemented the Sakai "My Active Sites" tab-based interface. This will serve as the basis for an upcoming reusable Fluid component.
  - Integrated into Sakai 2.5
- Designed and implemented the Layout Customizer, designed to provide customizable module layouts
  - Will be integrated into the post-3.0 release of uPortal
- Designed wireframes and specs for initial versions of new File Upload and Tagging components.
  - Will be implemented and released in Fluid 0.3 and 0.4.

Fluid DHTML Framework

- Built the first Fluid framework service, the Reorderer
  - Accessible, unobtrusive, highly reusable drag and drop
  - The backbone of the Lightbox and other Fluid components
  - Available within Sakai, and ATutor; will be integrated into uPortal's next release post-3.0
- Evaluated several JavaScript toolkits and widget sets for the following criteria, ultimately settling on jQuery
  - Unobtrusiveness and support for graceful degradation
  - Accessibility, UX design
  - Clarity and simplicity
• Developed a keyboard accessibility plugin for the jQuery JavaScript toolkit, making it significantly easier to add accessibility to DHTML interfaces
• Established an approach for allowing multiple versions of the Fluid framework to coexist on a single page. Essential for portal safety.

Releases

• Fluid 0.1 was release on November 30, 2007. The release contains:
  • Lightbox component
  • Reorderer framework service for accessible drag and drop
  • 3 UI design patterns offering advice about how to design for drag and drop
  • Protocols and guidance on how to do your own UX Walkthrough
  • Tons of sample code and documentation