

Coming Soon: Visual Consistency in the Catalyst Web Tools

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“Why do all the Catalyst Web Tools look different?” Compare the screen shots below and you’ll see what users mean when they ask this question: EPost (below, at left) is purple, with a narrow content space, and a left panel that links to other tools; ShareSpaces (below, at right) is blue with a wide content space and an orange help panel on the right.

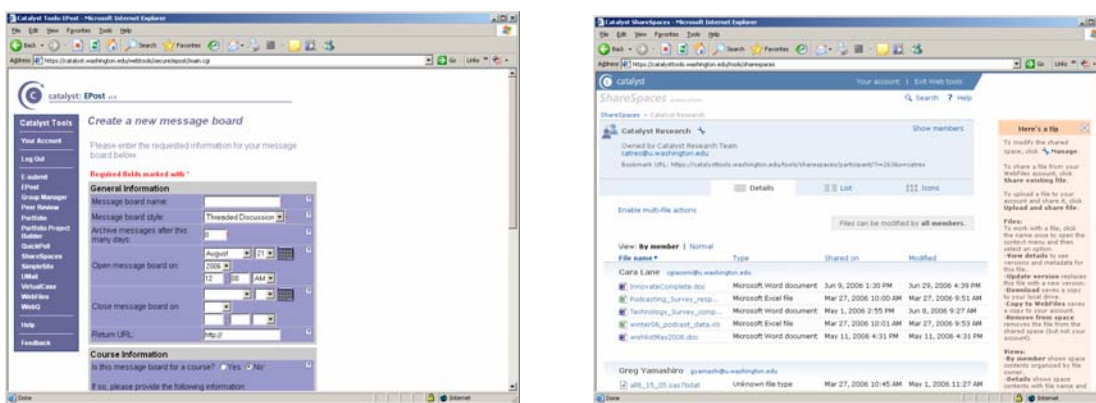


Figure 1: Visual inconsistency in two Catalyst Web applications

The Catalyst team is aware that the Catalyst Web Tools have many different "looks." Since the initial release of Peer Review eight years ago, Catalyst has created thirteen Web applications for use by the University of Washington community. From WebQ and EPost to Portfolio and ShareSpaces, we have designed each tool in accordance with the latest user interface technologies and trends in graphic design. Over time, individual tools may have improved in usability and sophistication, but these improvements came at the expense of a consistent and cohesive visual design across the entire range of Catalyst Web Tools.

To remedy this problem, the Catalyst design team began a project in June 2005 to create design guidelines for all current and future tools. Our aim is to create a suite of Web tools with consistent appearance and behavior. Consistency is crucial in software design because it contributes to usability; a uniform appearance allows users to rely on previously learned patterns to navigate a tool and complete tasks. Attributes such as color, layout, graphics, and navigation are all important in creating consistency.

At Catalyst, the challenge in designing a suite of Web applications is identifying which design elements should be kept consistent *across a suite of tools*, and which should be modified in order to *distinguish* one tool from another. Current research on design, however, focuses primarily on how to achieve consistency *within a single tool*, and little guidance is offered for how such principles might apply to a set of tools. Furthermore, guidelines for consistency are written primarily to help software developers create new tools from scratch, yet we were working with an existing collection. If users of Catalyst Web Tools already associated certain design attributes with a “Catalyst look & feel,” we wanted to be sure to consider these in our new design.

The Study

To address this gap in the literature, we designed a small study to help us understand how to make a cohesive suite out of the Catalyst Web Tools. We were interested in three questions:

1. What visual attributes do users currently associate with the Catalyst Web Tools?
2. What visual attributes contribute to consistency across a suite of tools?
3. What visual attributes should be modified to distinguish tools?

We created three sorting tasks to gather our data. By asking participants to sort screenshots of Catalyst Web Tools and think aloud as they did so, we were able to learn what visual attributes participants attended to and what criteria they used to construct different groups. (We assumed that the criteria reflected participants' sense of what was consistent within each group.) We also asked participants to label and describe each group, allowing us to confirm our observations.

We piloted the study with two participants, and ran the study with seven others. All participants had some experience with Catalyst Web Tools. Participants sorted screenshots from Catalyst and non-Catalyst suites of Web tools, then screenshots from several different Catalyst Web Tools, and finally, deliberate groupings of Catalyst screenshots that differed only slightly from one another. The progression of tasks allowed us to clarify which design attributes participants considered most important for consistency across tools and which attributes should be changed to distinguish one tool from another.

Findings

The results of our study were surprisingly consistent. Participants repeatedly cited color and layout as the primary design attributes they used to sort screens into like groupings. They also cited the header and global navigation area, the help panel, and main content window (see Figure 2) as important attributes. In follow-up questioning, all participants reported that color was the most important attribute to hold consistent within a single tool, while page layout and global navigation were important to hold consistent across a suite of tools. The main content area emerged as the least important for consistency; participants understood that this area would change depending on the context or specific task they were trying to complete within an application.

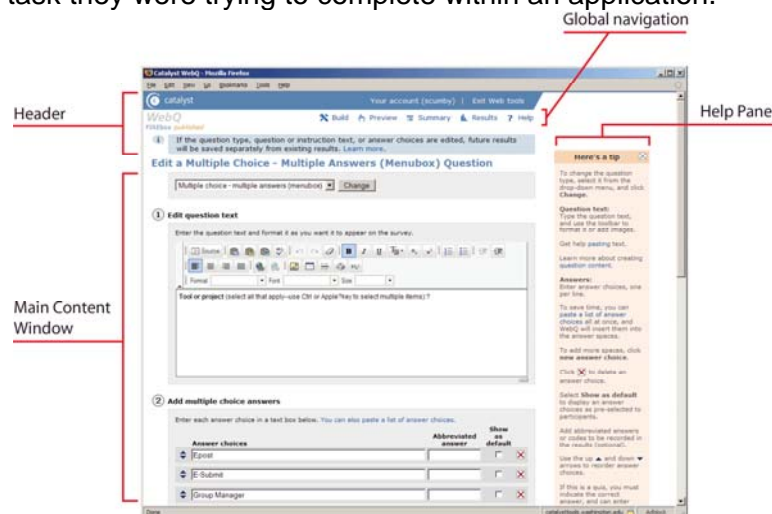


Figure 2: Catalyst Web Tool screen elements

In addition to these general findings, we learned from our study that participants associated particular design attributes with the Catalyst Web Tools specifically. In the first sorting task, participants were fairly adept at identifying Catalyst and non-Catalyst screens correctly, even when logos and tool names were removed. Participants cited a range of attributes that contributed to a “Catalyst look & feel,” including the Catalyst logo, large font, clear instructions, unsaturated colors, a “non-commercial” look, clean layout, and a help panel on the right. Although not every tool in the Catalyst suite currently conforms to these criteria, we were encouraged to discover that most participants had a particular schema for Catalyst.

What Next? Catalyst’s New Look

In 2007, Catalyst Web Tools will have a new visual design. The new “boilerplate” component is a uniform design for the top of each screen on every tool. The design incorporates what we learned in our study, keeping the attributes people associate with Catalyst, but also ensuring that important navigation elements and the help panel remain in the same place across all of our tools. In addition, the prototypes (Figures 3 and 4, below) show how individual tools will be distinguished by different colors in the header. The main content area is left to change as necessary with the specific tasks inherent to each tool.

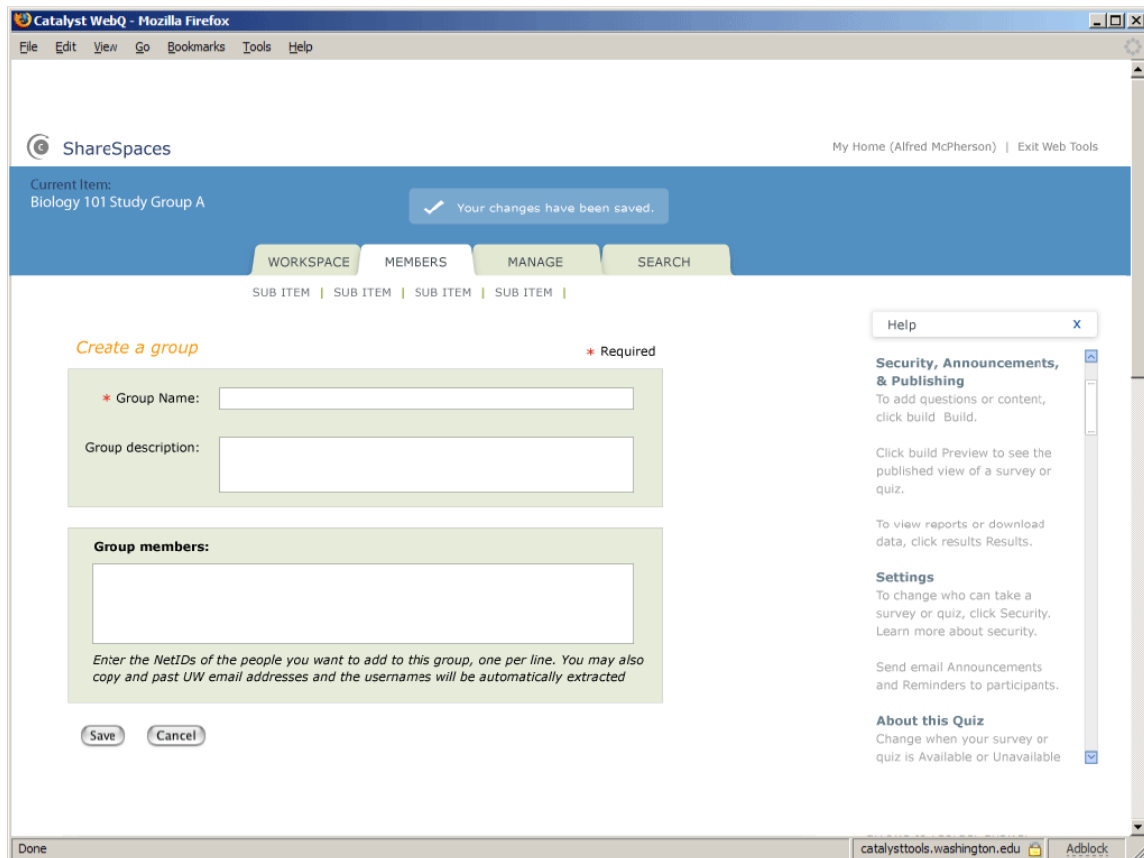


Figure 3: Design prototype for the Catalyst Web Tools

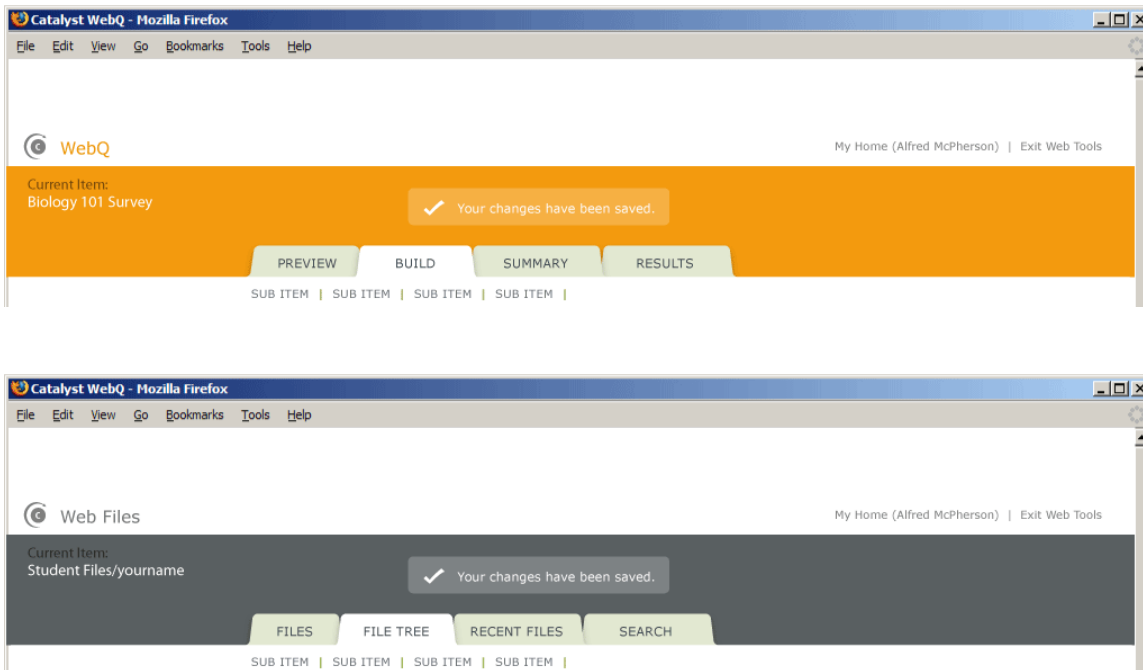


Figure 4: Two prototypes showing how color distinguishes different Catalyst Web Tools

We recognize that a new look for the Catalyst Web Tools does not solve all our consistency problems. As earlier mentioned, consistency in design also refers to *consistent behavior*—within a single tool and across tools. Users should be able to take similar kinds of actions in order to accomplish similar tasks. Implementing behavioral consistency will be the next step in our efforts to improve the usability of all Catalyst Web Tools.