The researchers have developed several InfoCanvas themes — a beach, desert, aquarium, office, view out a window, medieval fantasy and a mountain campsite. Icons on the screen represent various types of information the user monitors. The icons gradually move — but not like animation — to indicate changes in information. Objects can appear or disappear, images change, and images can move along a path, scale up or down, rotate or populate an area (e.g., like a field of flowers) in response to data changes.

If a user is intrigued by something on their InfoCanvas, they can run their mouse over that area to get more information in a pop-up box, or in the case of a stand-alone wall display, users touch the screen to get details. Recently, Miller added actual links to the Web pages generating information in the InfoCanvas.

The researchers emphasize the ability of InfoCanvas to cater to the user’s specific interests. For example, on Stasko’s InfoCanvas of a beach scene, a sailboat moves left to right to indicate the time of day from 9 a.m. to 6 p.m. Clouds appear in the sky, when appropriate, to indicate the weather in his parents’ hometown. A small seagull moves up and down to indicate the temperature. A large seagull moves left to right with changes in the Dow Jones Index. A crab appears when airfare to San Diego — a forthcoming destination for Stasko — changes below $300. A towel appears on the beach when Stasko receives email from his wife. A beach-goer’s swimsuit changes colors from green to yellow to red depending on the traffic flow on Interstate 75. And, because he’s a golfer, a sign on Stasko’s beach scene features the latest image from a golfing Web site.

“Some people want the current news headlines, but we don’t just put text on the screen,” Stasko explained. “It would be something like an airplane flying over with a banner containing headlines. If there’s text, we put it in a billboard or on a TV. The text is situated in a context so it looks like a painting. If you just put text on the screen, it just becomes like any old computer tool — for instance a Web portal. That’s fine, but by making the information like a painting on the wall, users can just glance up at it while they’re working during the day,” he added. “So I can keep up with things, but it doesn’t raise my blood pressure or get me tense. It’s just a complement.”

The project’s goal is to build a “front-end,” proof-of-concept software tool to allow users to easily design their own InfoCanvas. In the meantime, Miller has created an Atlanta-based InfoCanvas that is available for download at www.cc.gatech.edu/gvu/ii/infoart/downloads.html. Its information and icons are preset.

Researchers plan to test the InfoCanvas on several more users, including some working in home offices and workers who are not information technology specialists. Other research into software systems for monitoring information in a peripheral way has led to a Microsoft prototype called “Sideshow.” It creates a side panel on a user’s screen to get details. Recently, Miller added actual links to the Web pages generating information in the InfoCanvas.

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