

# SCWID

## A Tool for Supporting Creative Work In Design

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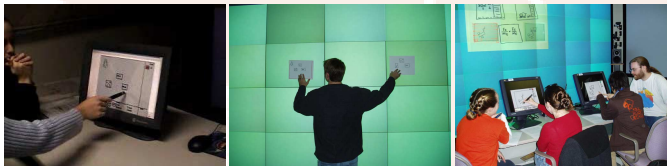
### Supporting the Creative Problem Solving Process

- **Computer tools can provide enormous benefits for the creative process**
  - Remote collaboration
  - Access to design rationale
  - Execution of a design
- **Current tools can inadvertently inhibit the creative process**
  - They support some parts of the creative process, but fail to support all of them
- **Users need tools that provide benefits without inhibiting the process**

### Design Goals

- Sketching and structuring
- Rapid exploration of the design space
- Working with multiple ideas in parallel
- Collaboration
- Reflection and “anywhere” refinement

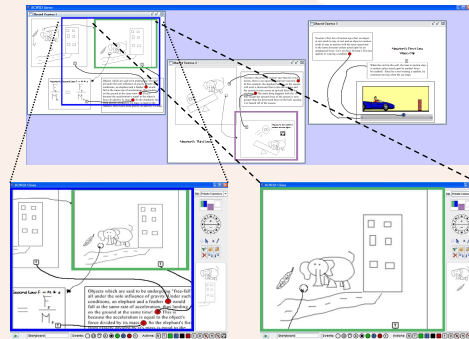
### Iterative Design



**Low-Fidelity Prototype Evaluations:** On the left, a user interacts with our initial client design. In the center, a researcher holds sheets of paper against a tiled display wall to simulate the effects of a user's input on the server. On the right, two users interact simultaneously with the low-fidelity prototype while a researcher acts as “the computer” for each of them.

- **Performed three low-fidelity prototype evaluations and learned:**
  - Controls for navigation between canvases should be distinct from controls for navigation within a canvas.
  - Tools should allow for personal territory within the global context.
  - Users should not be allowed to do hidden work within canvases over which they do not have sole ownership.

### SCWID Interface



**Screenshots of the SCWID server and two clients:** At the top, the large display shows three different design ideas in separate canvases. Two designers interact with specific areas within the leftmost canvas through their private displays (at bottom). The designer on the left is represented on the large display by a blue rectangle while the designer on the right is represented both on the large display and on the blue designer's private display as a green rectangle. A third, not pictured private display allows another designer to interact with the middle canvas.

- **A server program viewed on a large display**
  - Shows the global context of the work
  - Provides group awareness
  - Enables the juxtaposition and review of multiple design ideas at once
- **Multiple clients viewed on private displays**
  - Allows a user to sketch details
  - Affords navigation within the global context
  - Provides controls for both the private and large displays
  - Supports both shared and private work

### Implementation



**Works with virtually any configuration:**

- **Tiled display, plasma screen, or projector display with multiple private displays connected over a network**
- **Single computer with multiple displays**
- **Remote clients connecting to a central server**
- **Individual client as zoomable interface**

