Groupware for Real-Time Drawing: A Designer's Guide

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Contents of this book.

Computers and modern networks are making it possible for teams to work together in real-time through groupware. People can now share not only their voice and video image, but their work as well: documents, notes, presentations, and drawings.

This book describes the design, implementation, and commercialization of conferencing systems that allow people to collaborate in real-time over a shared drawing surface. Its chapters, written by some of the world's top researchers in this area, take traditional small group meeting practices and show how they can be supported and enhanced in both electronic meeting rooms for face-to-face interaction, and desktop conferencing systems for geographically separated groups. It presents solutions to conceptual groupware design problems, the technology used to implement the systems, and studies of system use in practice. The book also explores how research prototypes can be translated into viable commercial products and the kinds of new applications that can be built on top of them.

Suitable for professional software designers and programmers, researchers, students, and anyone else interested in groupware products, this book provides:

- A comprehensive look at the design, implementation and use of state of the art technology to support human communication and coordination through real-time collaborative drawing;
- Details on all aspects of collaborative working with reference to drawing.

Specific areas covered are design issues, implementation specifics, practical applications, studies of the use of groupware, and the marketing and deployment of this new technology.

Preface

Section 1: Designing a Collaborative Workspace

1. Designing at a distance via real-timne designer-to designer interaction (Scrivener, Harris, Clark, Rockoff)

2. Some design principles for sharing in Tivoli, a whiteboard meeting support tool (Moran, McCall, van Melle, Ronby-Pedersen, Halasz)

3. Human and technical factors of distributed group drawing tools (Greenberg, Roseman, Webster, Bohnet)

4. Gesturing through cursors: Implementing multiple pointers in group support systems (Hayne, Pendergast and Greenberg)

5. Using a shared pen-based tool for meeting support (Wolf, Rhyne, Briggs)

6. Integration of interpersonal space and shared workspace: ClearBoard design and experiments (Ishii, Kobayashi, Grudin)

Section 2: Systems, Architectures and Toolkits for Groupware

7. Wscrawl 2.0: A shared whiteboard based on X-Windows (Wilson)

8. GroupKit: A groupware toolkit for building real-time conferencing applications (Roseman, Greenberg)

9. Slice: A logical model for shared editors (Karsenty, Lafon)

Section 3: Applications of Collaborative Tools

10. SMART 2000 conferencing system: What we learned from developing the system (Martin)

11. Commercializing a real-time collaborative tookit (Patel, Kalter)

12. GroupGraphics: Prototype to product (Pendergast)

13. TelePICTIVE: Computer-supported collaborative GUI design for designers with diverse expertise (Miller, Smith, Muller)