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COURSE NOTES 24

Graphic Design for User Interfaces

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Graphic Design for User Interfaces: Tutorial Notes

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Tutorial Abstract

The tutorial will introduce terminology principles guidelines, and heuristics for using information-oriented, systematic graphic design in graphical user interfaces (GUIs) especially for the design of icons dialogue boxes and control panels metaphors, mental models and other navigational devices that often are not prescribed by window management systems

Participants will be exposed to a wide body of existing knowledge and practical advice that are immediately useful, as well as potential research topics in user interface design They will observe and analyze techniques for making displays more intelligible, functional, aesthetic, and marketable

Extensively illustrated lectures and demo excerpts will cover perceptual conceptual, and communication issues in typography symbol systems, color spatial composition animation and sequencing topics including the design of the following

Metaphors	Charts and diagrams
Mental models and navigation	Icons and cursors
Look and feel	Windows and menus
Proportion and composition gnds	Dialogue boxes/control panels
Color selection	Visual semiotics conventions
Tables and forms	Style guides

Practical design problems with critical review and commentary by the instructors will give participants hands-on experience in designing components of graphical user interfaces, such icons, dialogue boxes, and metaphors

Instructor Biography

Aaron Marcus

Aaron Marcus received a BA in Physics from Princeton University (1965) and a BFA and MFA in Graphic Design from Yale University Art School (1968). He is an internationally recognized authority on the design of user interfaces, interactive multimedia, and printing/publishing documents, including charts, forms, icons, and screens. Mr. Marcus has given tutorials at SIGGRAPH, NCGA, and SIGCHI conferences, in addition to seminars at businesses and academic institutions in Australia, Canada, Finland, Israel, Singapore, South Korea, the USA, and Japan. He co-authored *Human Factors and Typography for More Readable Programs* (1990), *The Computer Image* (1982), and authored *Graphic Design for Electronic Documents and User Interfaces* (1992), all published by Addison Wesley.

Mr. Marcus was the world's first professional graphic designer to be involved full time in computer graphics (1967), the first graphic designer to program a desktop publishing system (for the AT&T Picturephone, 1969-71), the first graphic designer to design virtual realities (1971-73), the first graphic designer to establish an independent computer-based graphic design firm for the purpose of designing user interfaces, electronic documents, and multimedia (1982), the only graphic designer to be co-awarded a research grant (\$500,000 for three years) by the US Defense Department's Advanced Research Projects Agency (DARPA) to develop new document design standards for programming languages (1982-85), and the only graphic designer to receive the National Computer Graphics Association (NCGA/USA) Industry Achievement Award for contributions to computer graphics (1992).

As President of Aaron Marcus and Associates, Inc., he and his staff design for and consult with marketing and development groups at 3M, Apple, Applicon, Schlumberger, Beckman Instruments, Digital Equipment, Dupont, Eastman, Kodak, Hewlett Packard, IBM, Linotype Hell, MCC, McDonnell Douglas, Motorola, NCR, Reuters, and Ricoh, among others.

Grant Letz

Mr. Letz received a BFA in Graphic Design from the University of Washington/Seattle. After working as a graphic designer in the publications department of the New Mexico State University, he joined the Understanding Business, San Francisco, where he worked on Pacific Bell's *Smart Yellow Pages* project. He joined Aaron Marcus and Associates in 1989 and has worked on most of the firm's user interface design projects since that time. His special area of expertise is in multimedia presentations.

Wolfgang Heidrich

Mr. Heidrich received his masters in graphic design from the Central St Martins College of Art and Design in London. He has done conceptual and environmental graphic design for several German cities, Schwabisch and Neckartenzlingen, graphic design for Bosch GmbH, Reutlingen, and user interface design in the Human Factors Divisions of British Telecom Laboratories, London.

Agenda for the Tutorial

Time	Topic
<i>Morning Session</i>	
8 30-9 30	Lecture 1 Visual Communication Principles
9 30-10 00	Lecture 2 Gnds
10 00-10 15	Break
10 15-11 00	Lecture 3 Semiotics Icon Design
11 15-12 00	Project 1 Icon Design
12 00-1 30	Lunch
<i>Afternoon Session</i>	
1 30-2 30	Lecture 4 Graphic Design of Dialogue
2 30-3 15	Project 2 Dialogue Design
3 15-3 30	Break
3 30-4 15	Lecture 5 Future of GUI s, Metaphor Design
4 15-5 00	Project 3 Metaphor Design