Conference

- Part of IEEE Visualization 2001
- Paradise Point Resort, San Diego, CA
- Chair: Keith Andrews
- About 120-130 participants
- More than PVG (100-110, according to Keith Andrews, anyway ;-)
- Interesting People

Overview (1/2)

- Invited Talk: Pat Hanrahan, "To Draw A Tree"
- Papers 1: Time, Change, and Clustering
- TN 1: Software Testing and Focus Zooming
- Papers 2 & TN 2: Graph Visualization
- Papers 3: Hierarchical Visualization
- Social Event ;-)
Invited Talk: Pat Hanrahan

- "To Draw A Tree"
- Very Interesting
- Lots of Trees
- Historical Examples

- Slides available at http://www.infovis.org

P1: Time, Change, Clustering

- Marc Weber, Marc Alexa, Wolfgang Müller, „Visualizing Time-Series on Spirals“
- Lucy Nowell, Elizabeth Hetzler, Ted Tanasse, „Change Blindness in Information Visualization: A Case Study“
- George S. Davidson, Brian N. Wylie, Kevin W. Boyack, „Cluster Stability and the Use of Noise in Interpretation of Clustering“

TN1: SW Testing, Focus Zoom

- J. Eagan, M.J. Harrold, J.A. Jones, J. Stasko
  Visually Encoding Program Test Information to Find Faults in Software
- T.A. Keahey
  Getting Along: Composition of Visualization Paradigms

Eagen et al.: Program Testing
Keahey: Getting Along

P2 & TN 2: Graph Visualization

- K.-P. Yee, D. Fisher, R. Dhamija, M. Hearst
  Animated Exploration of Dynamic Graphs with Radial Layout
- J.M. Six, I.G. Tollis
  Effective Graph Visualization via Node Grouping
- F. v. Ham, H. v. de Wetering, J.J. van Wijk:
  Visualization of State Transition Graphs
- J. Abello, I. Finocchi, J. Korn
  Graph Sketches

Yee &al: Animated Exploration

- Tree Layout
- Nicely animated
- Interpolation along circles
- Slow-in, slow-out
- Nothing really new

Six &al: Effective Graph Visu.

- Clusterir
- 3D layout
- similar g
- "corn tre

Abello & al: Graph Sketches

Huge graphs, many nodes & edges
many nodes between two edges (calls) show adjacency matrix
zoomable

Papers 3: Hierarchical Vis

- Ben Shneiderman, Martin Wattenberg, Dow Jones, "Ordered Treemap Layouts"
- Raimund Dachselt, Jürgen Ebert, "Collapsible Cylindrical Trees: A Fast Hierarchical Navigation Technique"
- Ernst Kleiberg, Huub van de Wetering, Jarke J. van Wijk, "Botanical Visualization of Huge Hierarchies"
P4: Blur, Queries, Bar Charts

- R. Kosara, S. Miksch, H. Hauser
  Semantic Depth of Field
- S. Havre et al.
  Interactive Visualization of Multiple Query Results
- D. Keim et al.
  Pixel Bar Charts: A New Technique for Visualizing Large Multi-Attribute Data Sets Without Aggregation

Kosara & al: SDOF

- First presentation, at 8:30 in the morning
- ~100 people there
- good presentation ;-)
- Lots of questions (chair had to cut off)
- Lots of questions & praise ;-) afterwards
- Indication of work on SDOF by others

Havre & al: Query Results

- Query results from search engines
- Gives idea of number and distribution of results
- Combine several queries

Keim & al: Pixel Bar Charts

- Extension of bar charts
- Pixel-based stuff, who would’ve thought ;-) Puts more information into bar charts
- Correlations easier to see
- Complex layout algorithm, works most of the time (NP-complete problem)
P 5: Empirical Studies

- A. Kobsa
  An Empirical Comparison of Three Commercial InfoVis Systems
- T. Barlow, P. Neville
  A Comparison of 2-D Visualizations of Hierarchies
- M. Tavanti, M. Lind
  2D vs. 3D, Implications on Spatial Memory

Kobsa: Comparison

- Eureka (TableLens), InfoZoom, Spotfire
- 83 participants! (students, "experts in dating and cars")
- Some significant differences (for details see paper)
- Discussion if selection of systems and tasks was good

Barlow & al: Hierarchies

- Four different tree visualizations
- 15 participants
- No overlap in 3D
- Taped presentation, still over time

Tavanti & al: 2D vs. 3D

- Simple memory test
- Simple layouts, no overlap in 3D
- 20 subjects
- Two-stage experiment
- 3D better for this task
- A bit disappointing
C1: Decision Trees, Clickstreams

- T. Barlow, P. Neville
  Visualization for Decision Tree Analysis in Data Mining
- J. Brainerd, B. Becker
  E-Commerce Clickstream Visualization

Barlow & al: Decision Trees

- Multiple, Linked views
- Different styles: Trees, Aggregation, ...
- Zoomable
- Interface for Data Mining: Training, Validation, ...

Brainerd & al: Clickstreams

- Website analysis
- Shows user behavior
- Aggregation, Differentiation by type
- Looks very effective

C2: GIS and Medicine

- R.M. Edsall, A.M. MacEachren, L. Pickle
  Design and Assessment of an Enhanced Geographic Information System for Exploration of Multi-Variate Health Statistics
- J. Agutter et al.
  Graphic Data Visualization for Cardiovascular System
**Edsall & al: GIS and Medicine**

- Linked views: Parallel coordinates, scatter, etc.
- High-dimensional data
- Looks useful

**Agutter & al: Cardiovascular**

- Cardiovascular data for Anaesthesia
- Based on pipe metaphor
- Very intuitive
- Tested with physicians, no great success...
- Looks nice, but is it needed?

**Capstone: Battlefield Vis**

- Visualization of battlefield info
- Mostly asked for help in developing stuff
- People made point of leaving
- Pathetic image of US armed forces
  - Cheesy demo "movie"
  - "Brightest and best"... yeah right....
- *Very* bad idea, imho

**Conclusions**

- Interesting conference!
- Some good papers, some bad ones
- More science, less prettiness (van Wijk ...)
- Evaluations on the rise, but little in terms of conclusions
- No more trees, please!
- Nice venue ;-)
Next InfoVis

- October 28-29, 2002
- Boston Park Plaza Hotel, Boston, MA
  - Nice location
  - Bloody expensive
  - Pfister wants Biotech community there