Tennis Exercise Followup

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CPSC 547, Information Visualization
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http://www.cs.ubc.ca/~tmm/courses/547-17

TennisViewer

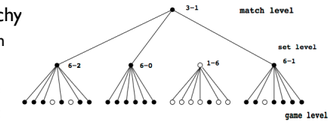
[Liqun Jin and David C. Banks, "Visualizing a Tennis Match," Proceedings of 1996 IEEE Symposium on Information Visualization (San Francisco, CA), pp. 108-114.]

[Liqun Jin and David C. Banks, "TennisViewer: A Browser for Competition Trees," IEEE Computer Graphics and Applications, Vol. 17, No. 4 (July/August 1997), IEEE Computer Society, pp. 63-65.]

- synthesized data: entire single tennis match down to stroke level
  - simulating strokes subject to prescribed probabilities

TennisViewer

- hierarchy
  - match
  - set
  - game
  - point
  - service
  - strokes
- top-nesting layered map



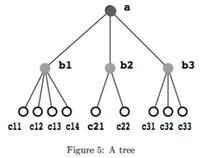


Figure 5: A tree

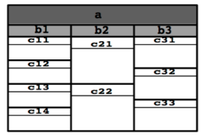
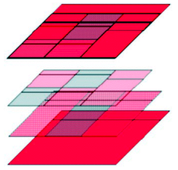
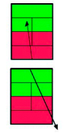


Figure 6: The top-nesting layered map of the tree in figure 5

Tennis Viewer

- treemap idiom
  - subdivision: match, sets, games
  - coloured by player (red/green)
- 2D translucent layers
  - top made from combination of translucent planes below
  - local information (who won point, above) + global context (who won match, below).
- ball traces of strokes
  - icon: spatial layout of tennis court
  - arrow showing ball trace



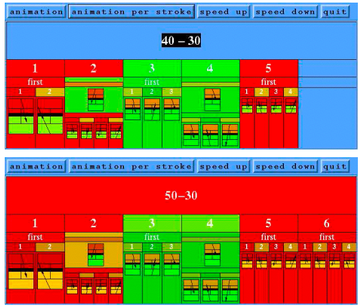


Tennis Viewer

- Magic Lens to zoom
  - redisplays contents underneath

TennisViewer

- animation
  - before vs after final point



TennisViewer

- cardinality
  - 1 match
  - 5 sets
  - 51 games
  - 332 points
  - 446 services
  - 2800 strokes

Critique

- strengths?
- weaknesses?
- comparison to your own sketches?