

SI649 In Class

March 14, 2014

Your design project today is to build a visualization for a tennis match. Recall that a match is composed of sets (3 or 5 where a majority wins), sets are composed of games (6+ games to win a set with 2 more than opponent), and games are composed of points (at least 4 to win the game, and 2 more than opponent). *The complete rules are on the back of this page.*

I would like you to come up with a **visual representation of the entire match from the overall winner to the winner of individual points**. Interaction is allowed if you think it valuable, and you can also use multiple windows/dialogs if you find you need them (though you should go for data density in *one* visualization if possible).

Things to think about:

1. The hierarchy is points -> games -> sets -> matches
2. Not all points have equal importance
3. Points are actually composed of serves and returns (ball is passed back and forth), extra credit for representing these in your hierarchy

Expanded tennis rules:

There are variants to this, but let's just use these rules.

Games

Games are scored as follows:

love (0 points) -> 15 (1 point) -> 30 (2 points) -> 40 (3 points) -> game

Serving switches from player A to B, every game (A single player serves for the entire game). So if A wins the first point the score is 15-love, if B wins the next two points the score is 15-30.

The only weirdness is that a player has to win by two points. So if the score is 40-40 (also called "40 all" or "deuce" or 3-3 if you're just counting points) the players need to keep playing until one of them gets two points in a row (5-3 is a win, 7-5 is a win, etc. but 4-3, 5-4, and 7-6 are not). If the server is in the lead during this phase (i.e., has a 1 point lead) this is called advantage-in (or "ad-in"). If the receiver is in the lead it's called advantage-out (or "ad-out"). If the score is ad-in and the server wins the next point, they win the game. If the receiver wins the next point the score is tied ("deuce") again.

Sets

Sets are won by winning 6 games. As before, this needs to be done by a margin of two. So if the score is 6-6 (each player has won 6 games), the players keep going. For example, 9-7 or 8-6 is a win.

Match

A match is composed of 3 or 5 sets. When 3 sets are played the winner is determined by whoever won 2 sets (majority of 3 or "best of 3"). When 5 sets are used, the winner must win 3 sets ("best of 5").

