Voronoi Treemaps in D3

Paul Vines  Peter Henry
University of Washington Computer Science and Engineering Department
plvines@cs.washington.edu  peter@cs.washington.edu

Treemaps are a space-filling visualization of hierarchical data. They can be computed quickly, but are usually limited to rectangular regions. Voronoi diagrams are a partitioning of space into regions based on nearest-neighbor seed points. Voronoi Treemaps are an alternative treemap formulation allowing for arbitrary polygon regions and better apprehension of hierarchical structure, and our goal is to bring this visualization component into D3 using JavaScript.

A heurislic, force-directed approach was previously used in [Horn 2009] for interactive browsing of an encyclopedia of life. We would like to enable such interactive visualization for the web using D3.

Due to bugs in our implementation, we are currently limited to at most three sites. Recursive generation will be straightforward once the bugs are gone.