TECHNOLOGY

Treemap 3.0

OVERVIEW

Treemaps are a space-filling visualization for hierarchical structures that are extremely effective in showing attributes of leaf nodes by size and color coding. Treemaps enable users to compare sizes of nodes and of sub-trees and are especially strong in spotting unusual patterns.

The Treemap visualization technique, developed by Ben Shneiderman at HCIL, University of Maryland, College Park, presents a novel method to respond to visualizing hierarchical information. The Treemap visualization method maps hierarchical information to a rectangular 2-D display in a space-filling manner so that 100 percent of the display space is utilized. In this method nodes, whose attributes are of more importance, are given more display area. Users have the choice to define the leaf node attribute that determines space allocation. Treemaps coupled with dynamic query provides users' with powerful tool to query a large data set or to find patterns. Dynamic query in Treemap is implemented using sliders. It applies the principles of direct manipulation to:

- Database searching
- Visual representation of the query's components
- Visual representation of results
- Rapid, incremental and reversible control of query
- Selection by pointing, not typing
- Immediate and continuous feedback.

The University of Maryland is proud to offer its Java version of Treemaps, better known as Treemaps 3.0. This version supports slice-and-dice and squarified layouts with a simplified input format to enable easier loading of user data. For more information see http://www.cs.umd.edu/hcil/treemap and please contact the Office of Technology Commercialization at 301-405-3947 or by e-mail at otc@umd.edu

CONTACT INFO

UM Ventures
0134 Lee Building
7809 Regents Drive
College Park, MD 20742
Email: umdtechtransfer@umd.edu
Phone: (301) 405-3947 | Fax: (301) 314-9502

Additional Information

INSTITUTION

University of Maryland, College Park

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EXTERNAL RESOURCES

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