More Trees (Space-filling)

CS 4460 - Information Visualization
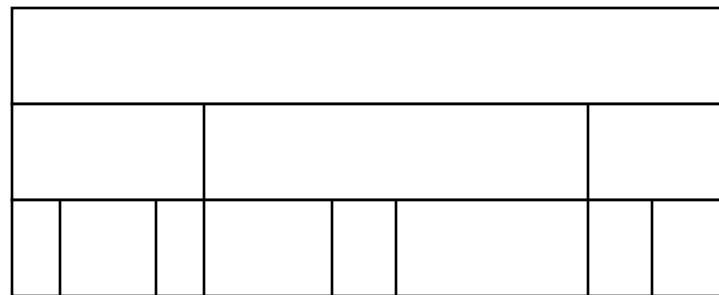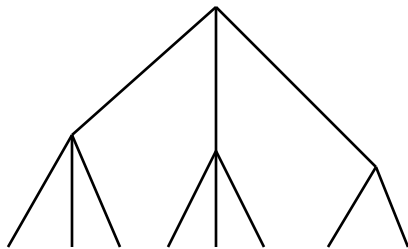
Many PPts courtesy John Stasko

A Space-Filling Representation
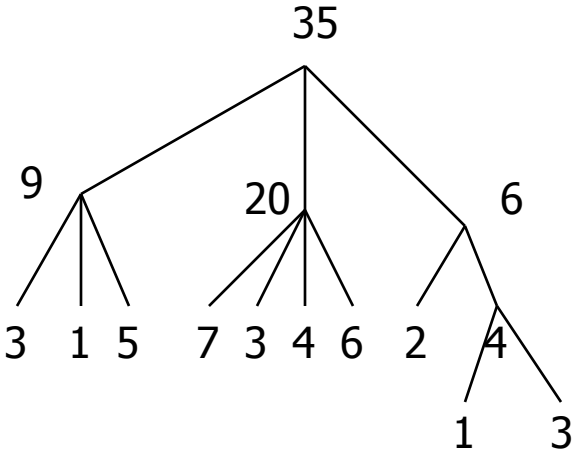
Each item occupies an area
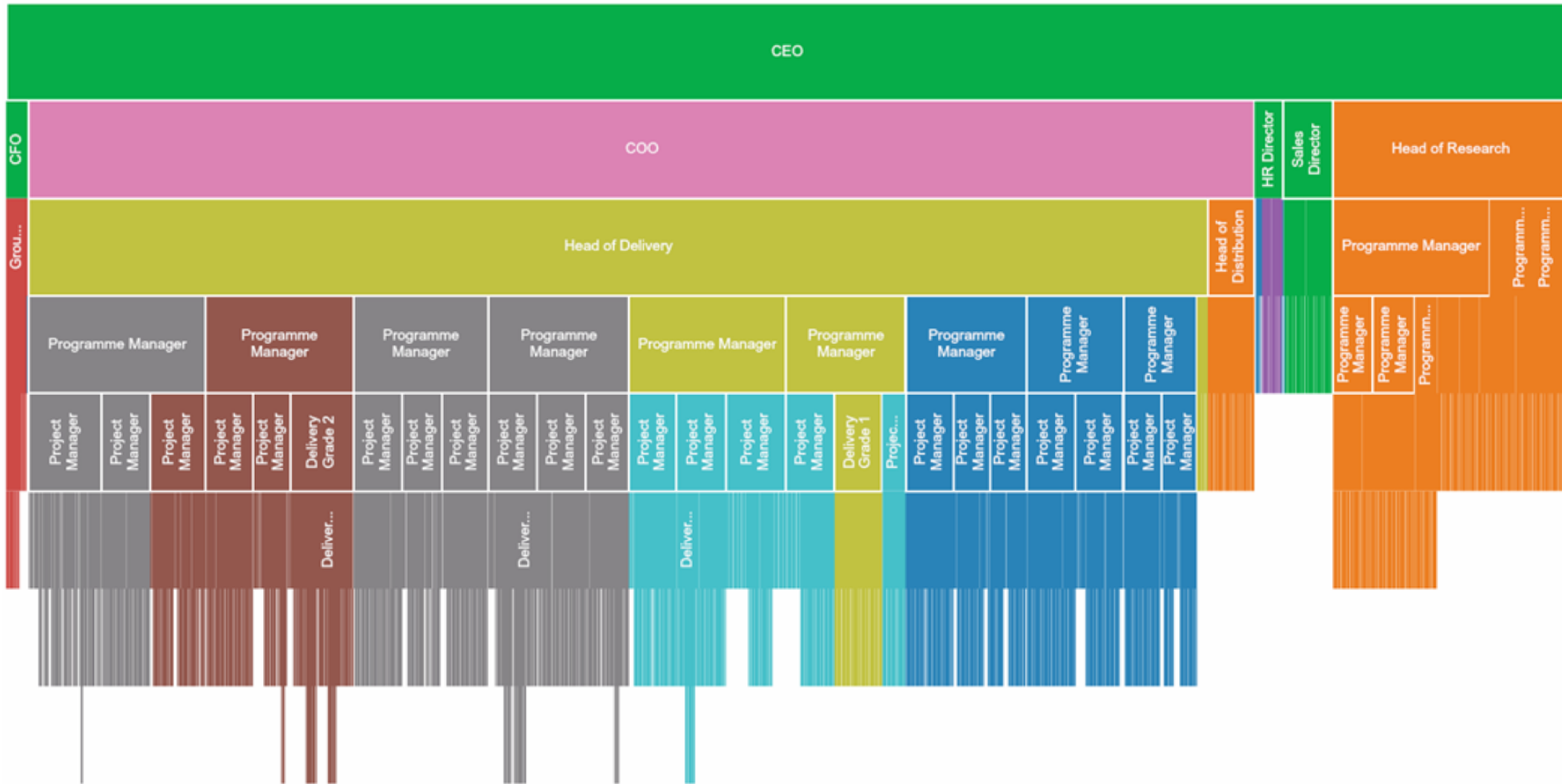
Children are "contained" under parent

One example

Called "Icicle Chart"

```
                35
        9      /|\     6
       /|\   20/|\    /\
      / | \  / | \ \ /  \
     3  1  5 7 3 4 6 2   4
                        / \
                       1   3
```

A Real Icicle Chart

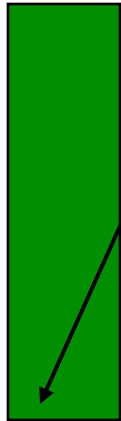Any similarity to SunBurst?

Department

- 🟧 Distribution
- 🟩 Executive
- 🟫 IT Programme Delivery
- 🟪 Operations
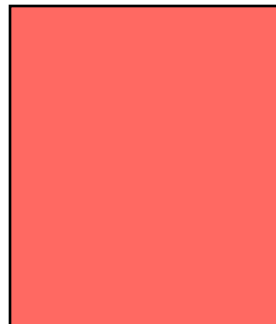- 🟦 Project Delivery
- 🔵 Projects

Treemap Issues

- Aspect ratio of individual areas
- Showing hierarchy

Treemap Area Aspect Ratios

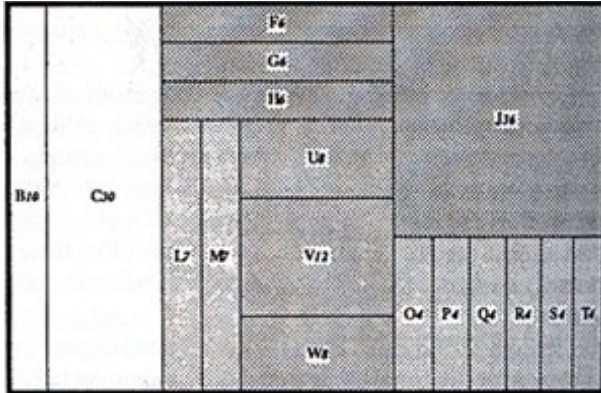These kinds of rectangles are visually unappealing

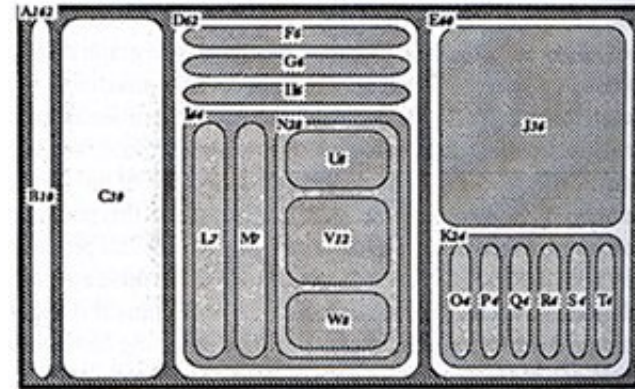And hard to compare areas – which has bigger area?

Showing Hierarchy

- Regular borderless treemap makes it challenging to discern structure of hierarchy, particularly large ones
  - Supplement Treemap view
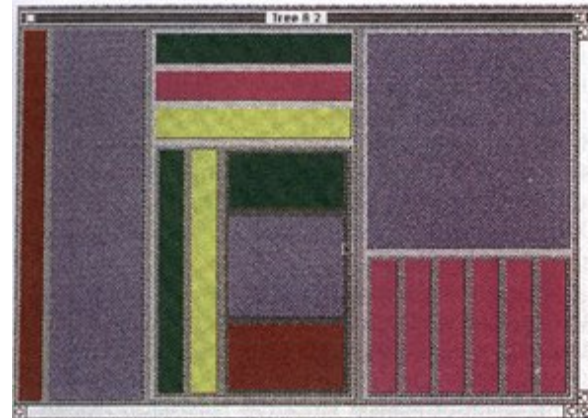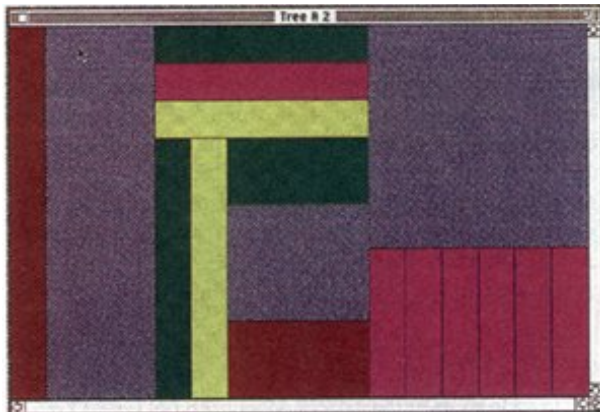 - Change rectangles to other forms

How Show Hierarchy?

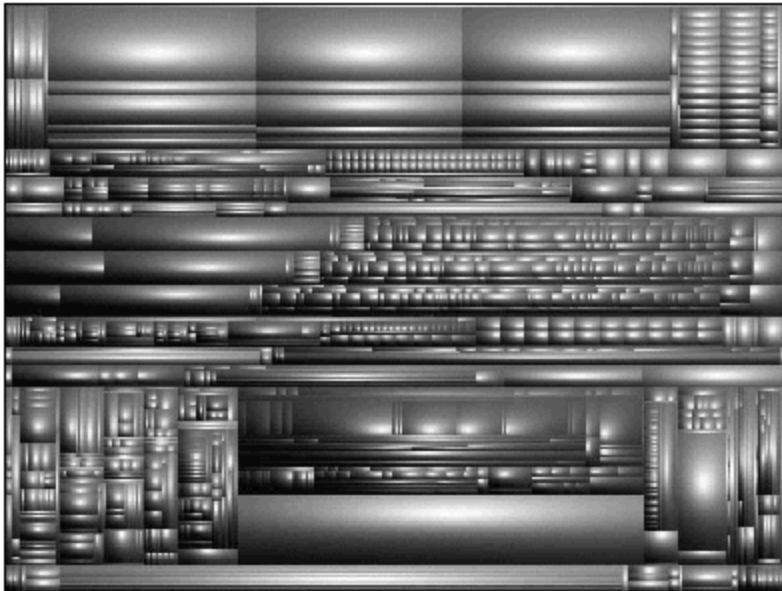Nesting not explicitly shown

Nesting explicitly shown

Good for how many levels?

Variation: Cushion Treemap

Add shading and texture
to help convey structure
of hierarchy
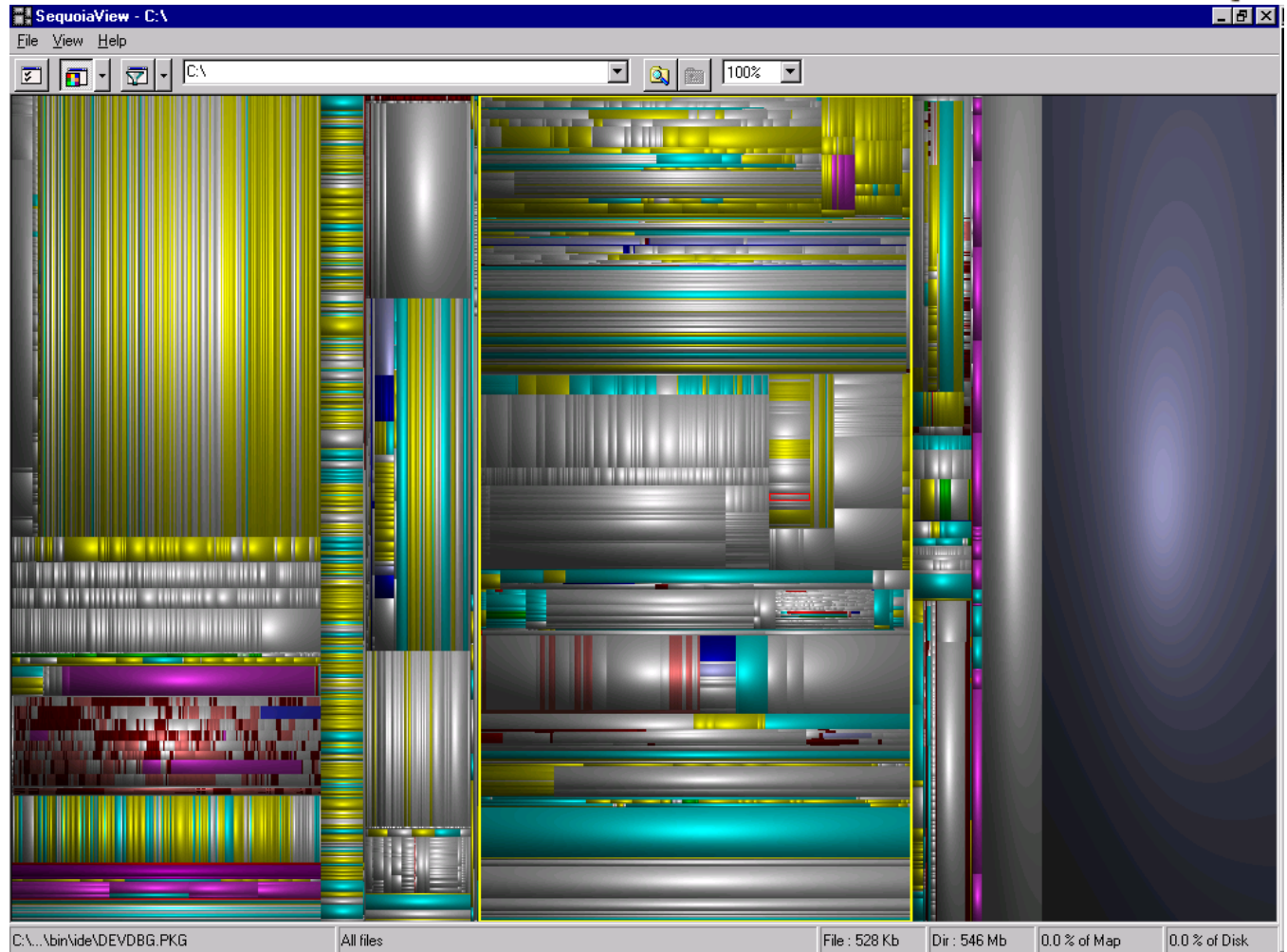
Van Wijk & van de Wetering
InfoVis '99

SequoiaView

File visualizer built using cushion treemap notion

Demo

CS 4460

Internet News Groups

NetScan

Fiore & Smith
Microsoft

Product Sales

The Hive Group

CS 4460

News Stories

Marumushi

CS 4460

Investment Portfolios

Panopticon

Let's Use a Tree-Map Program

- Go to http://www.cs.umd.edu/hcil/treemap/demos/

- Download Treemap 4.1.2

- Run the program

- Open file
  - 43causesofdeath-65plus.tm3