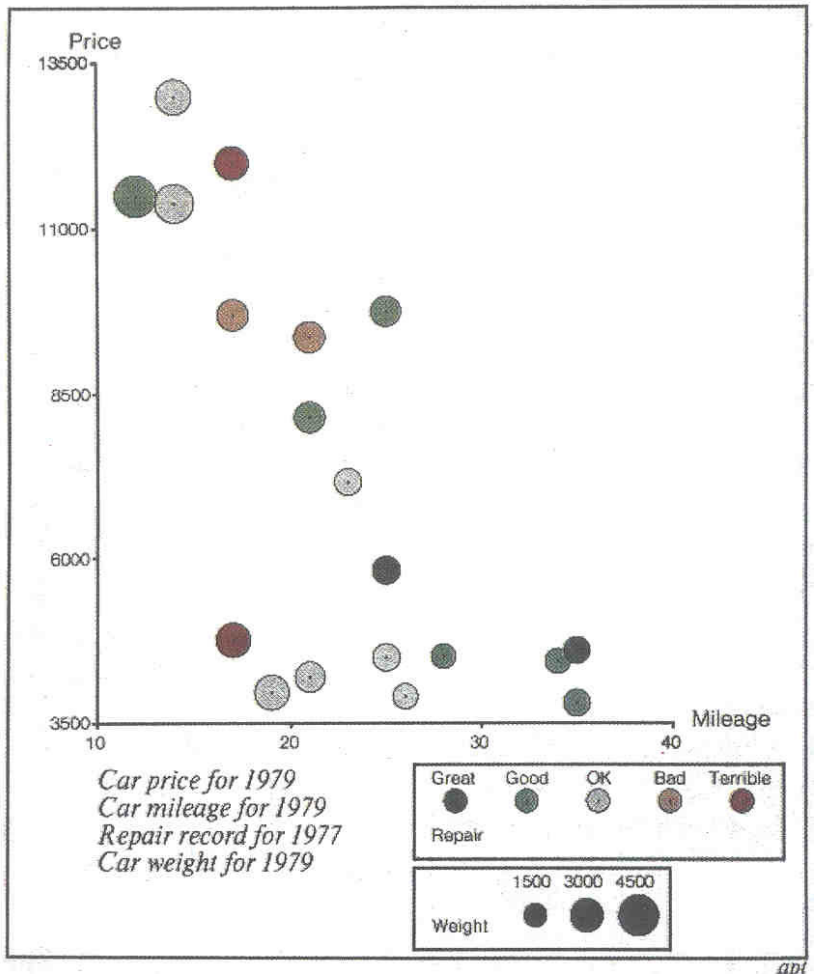
Information Visualization Survey

APT: A Presentation Tool



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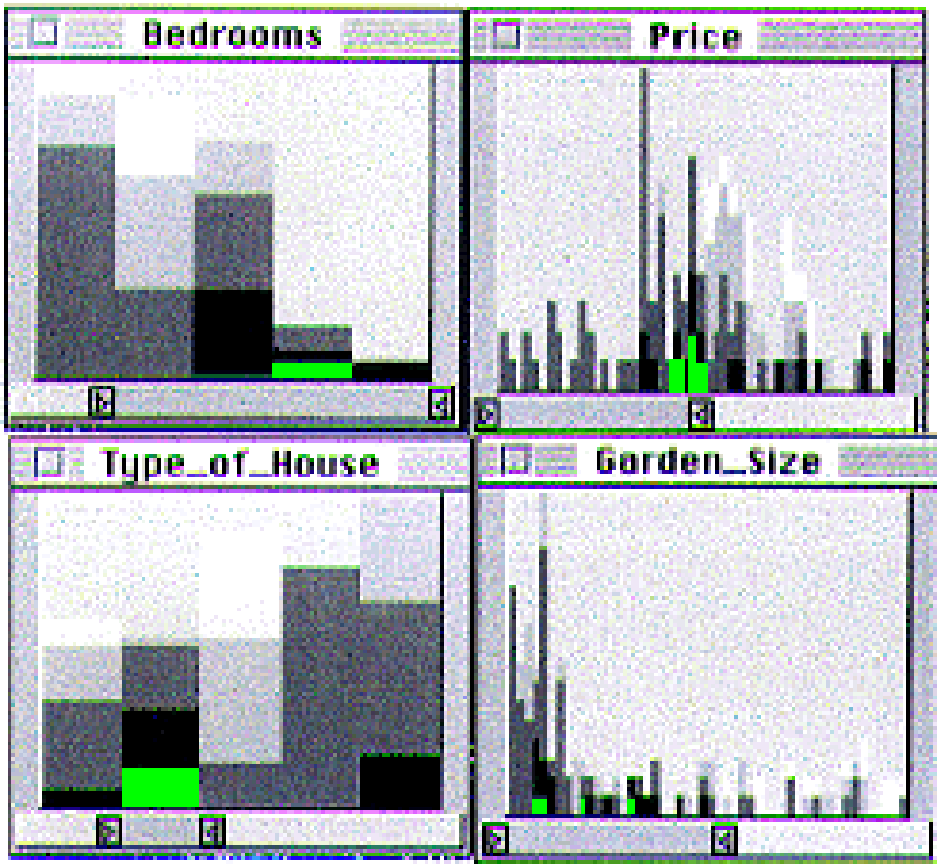
attribute explorer



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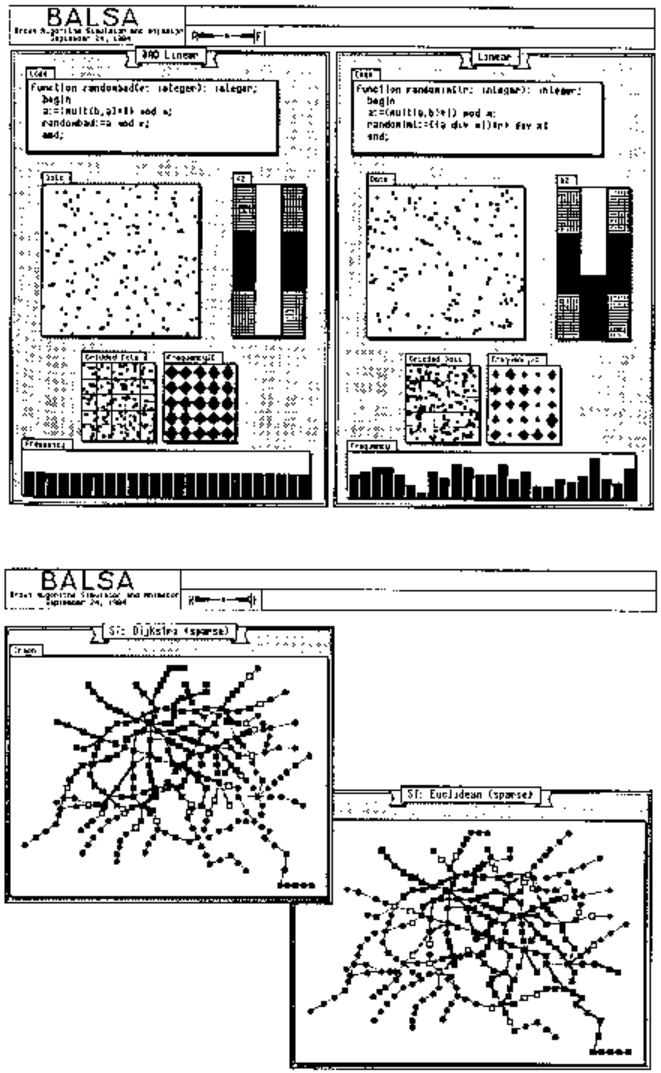
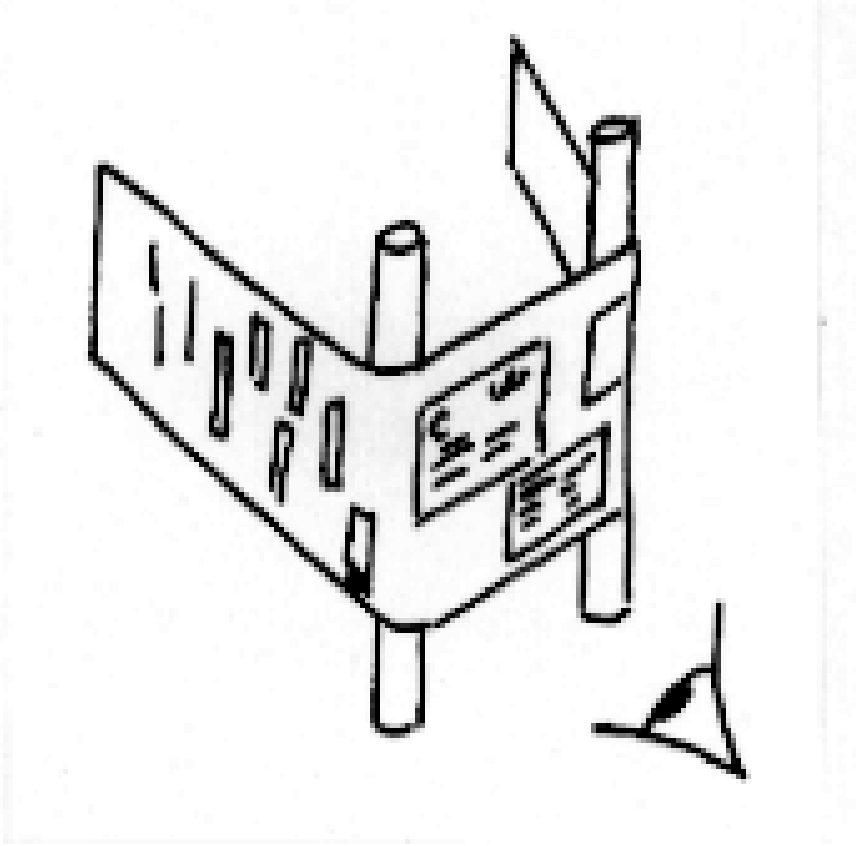
http://portal.acm.org/citation.cfm?id=260433&dl=ACM&coll=portal

balsa



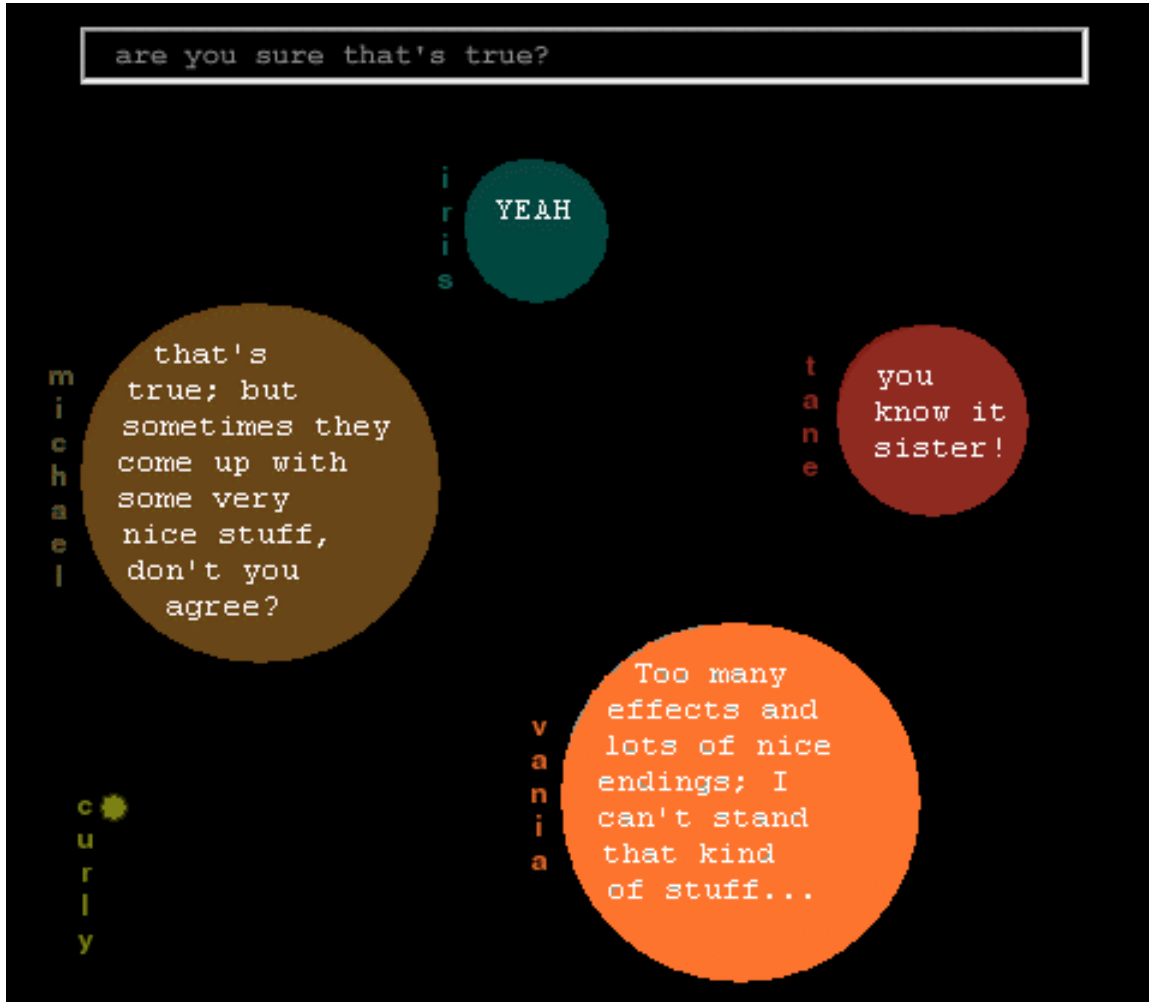
http://www.nickerson.to/visprog/ch7/IMG00049.GIF

bifocal display



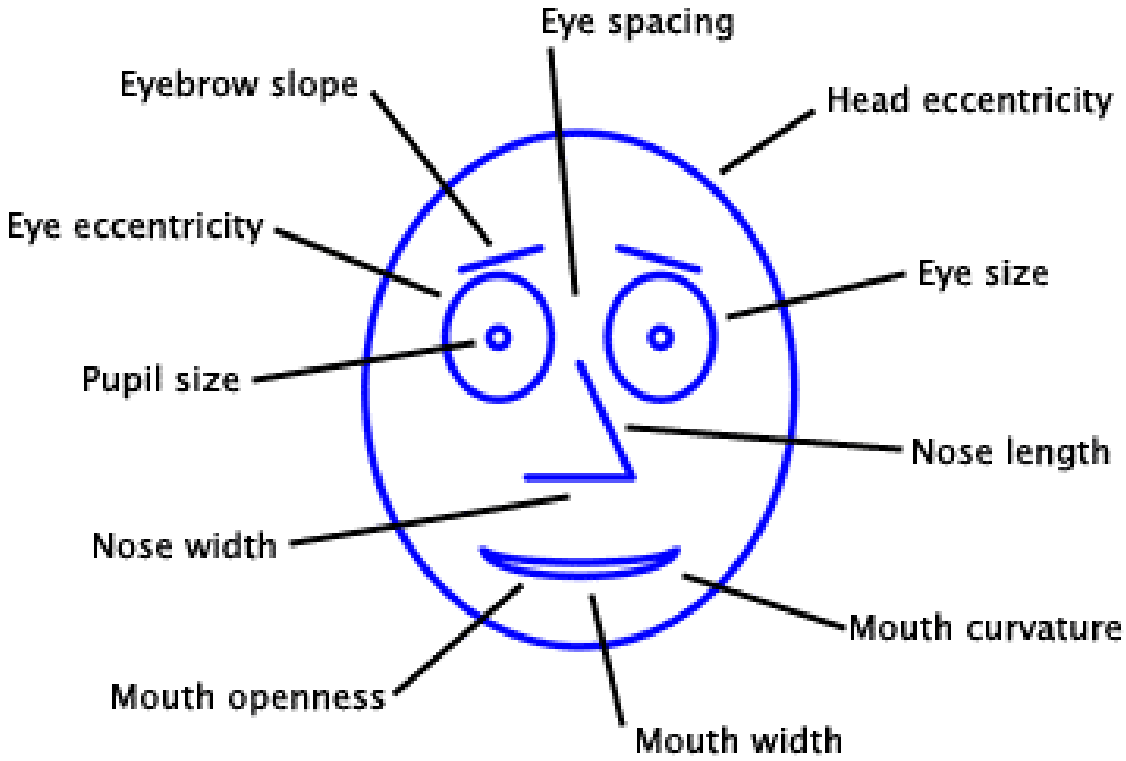
http://www.ee.ic.ac.uk/research/information/www/bi.gif

chat circle



http://web.media.mit.edu/~fviegas/circles/conversational_interface.html

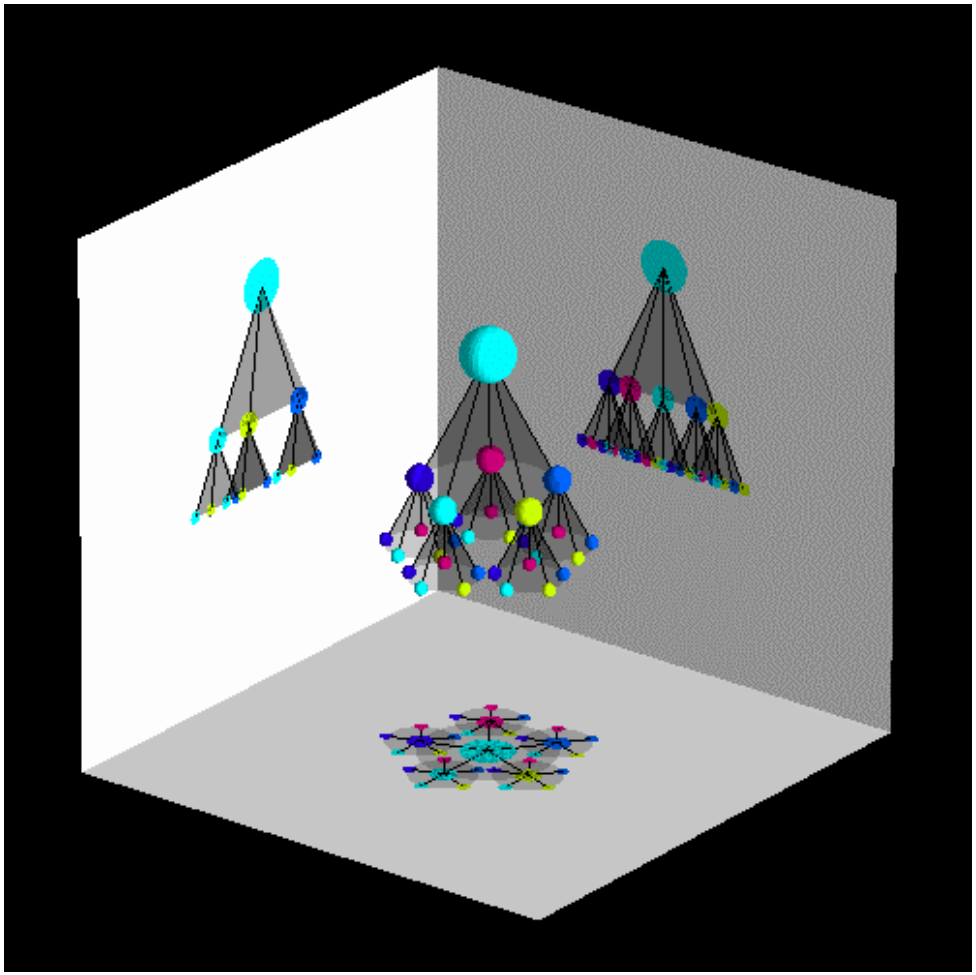
chernoff face



Chernoff, H. (1973). Using faces to represent points in k-dimensional space graphically. *Journal of American Statistical Association*, *68*, 361-368.
Chernoff, H., & Rizvi, M. H. (1975). Effect on classification error or random permutations of features in representing multivariate data by faces. *Journal of American Statistical Association*, *70*, 548-554.

http://www.bradandkathy.com/images/face.gif

cone tree



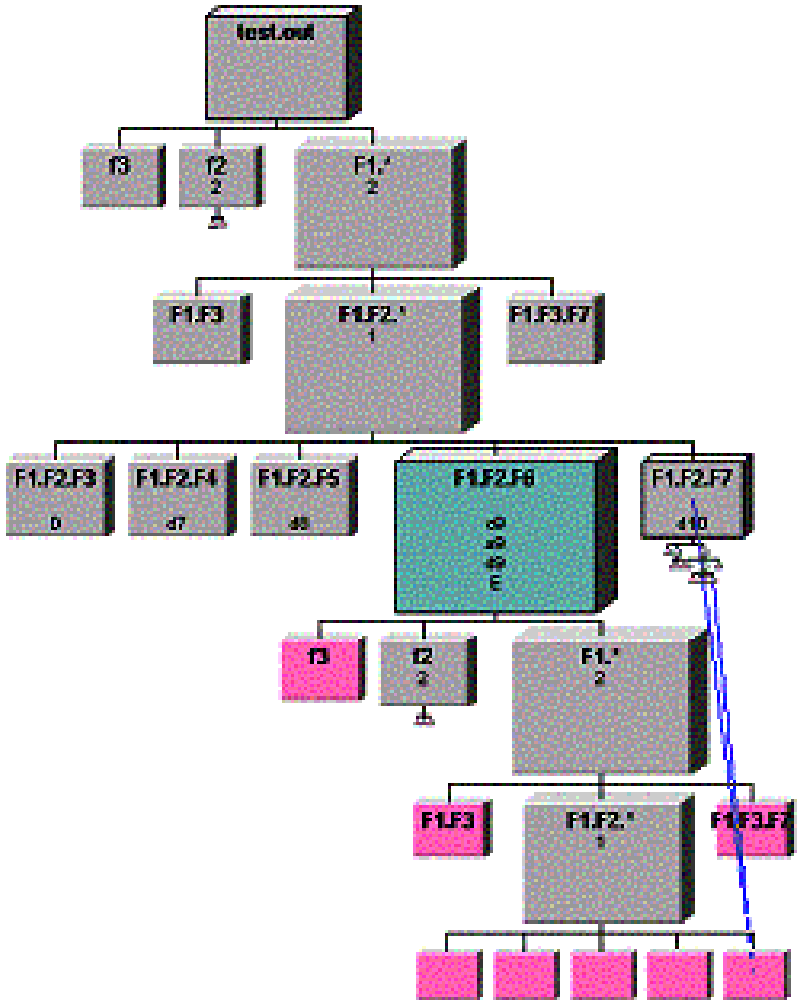
http://research.compaq.com/SRC/3D-animate/conetree.html

data mountain



http://www1.cs.columbia.edu/~paley/spring03/assignments/HW3/gwc2001/mountain.jpg

doi tree



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disk tree

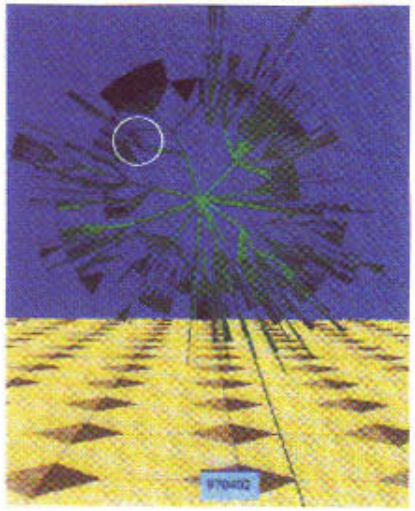


Figure 3: Week 1, April 1997

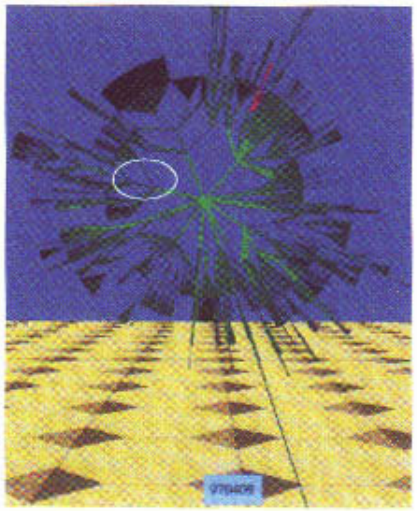


Figure 4: Week 2, April 1997

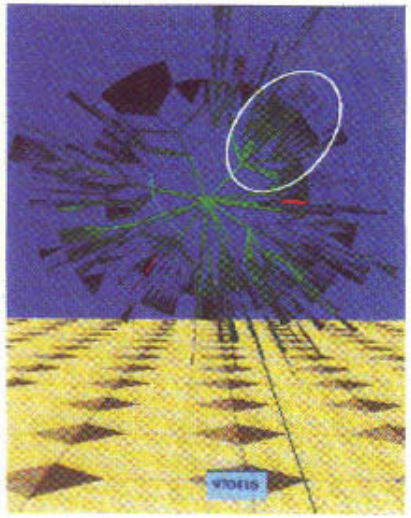


Figure 5: Week 3, April 1997

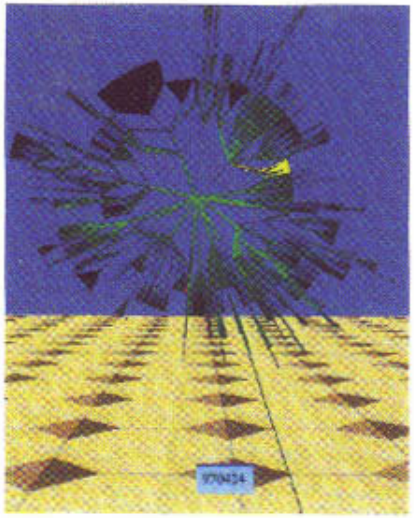
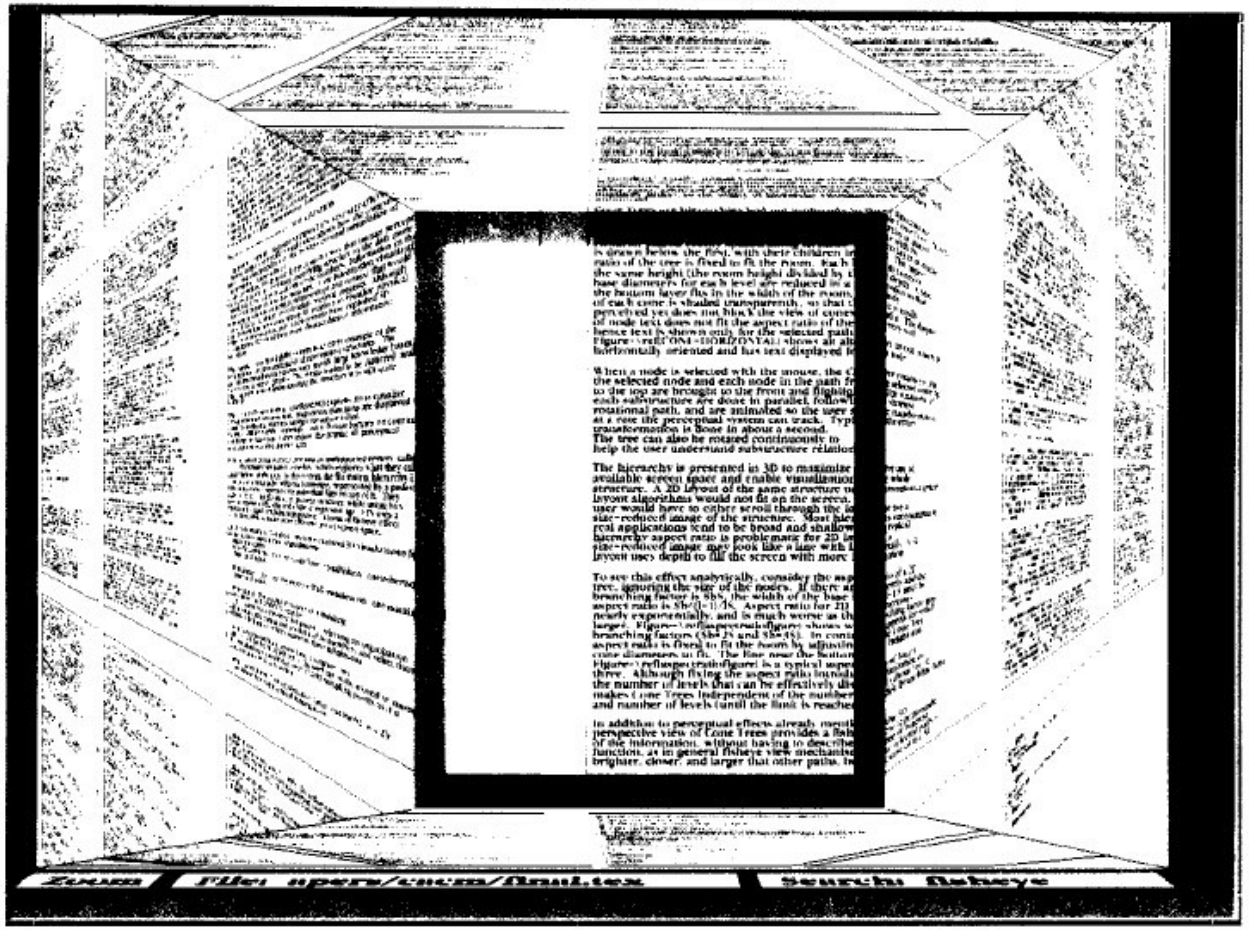


Figure 6: Week 4, April 1997

www.daimi.au.dk/~mackinla/iv-course/ sources/4-graphs.ppt

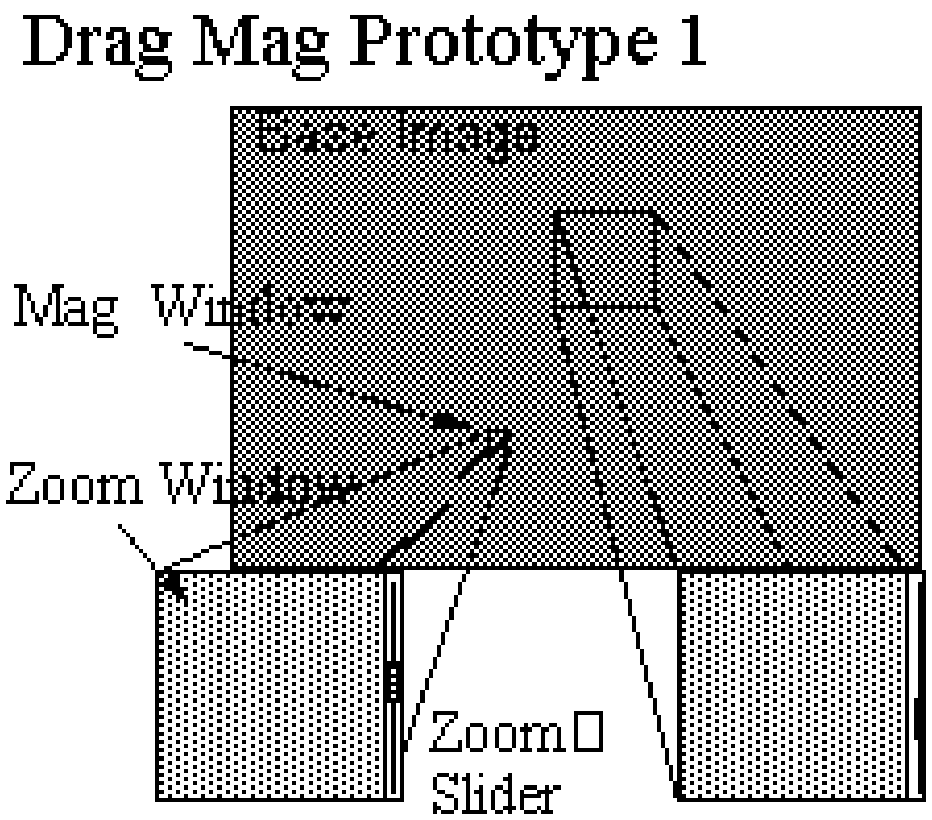
document lens



Robertson, G. G. and J. D. Mackinlay, The Document Lens, *Proceedings of the Sixth Annual ACM Symposium on User Interface Software and Technology (UIST '93),* Nov. 3--5, 1993, Atlanta, pp. 101--107.

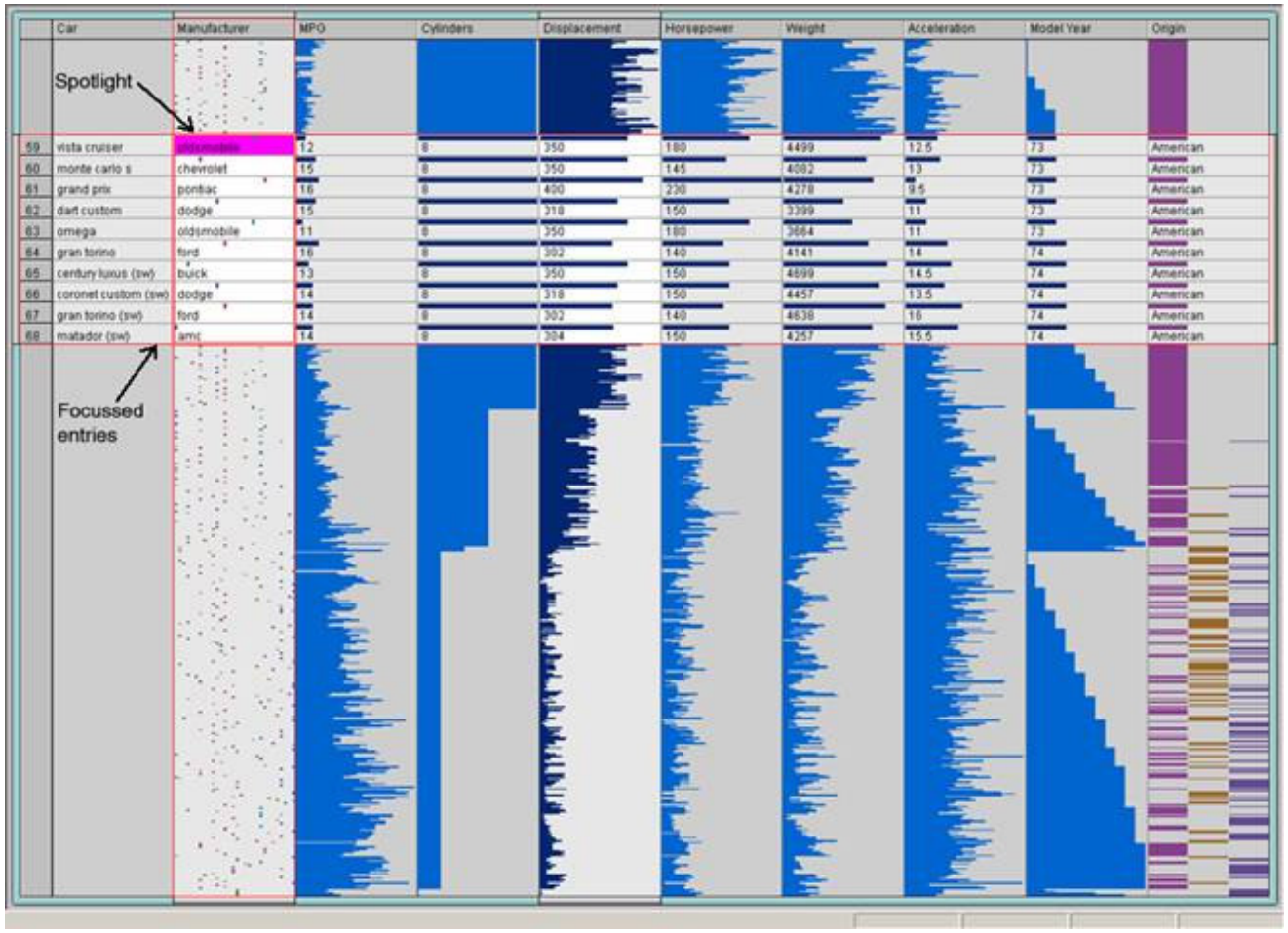
http://class.ee.iastate.edu/berleant/home/Courses/text/TextVisualization/DocumentLens.jpg

dragmag



http://www.acm.org/sigchi/chi95/Electronic/documnts/videos/cw2_bdy.htm

eureka



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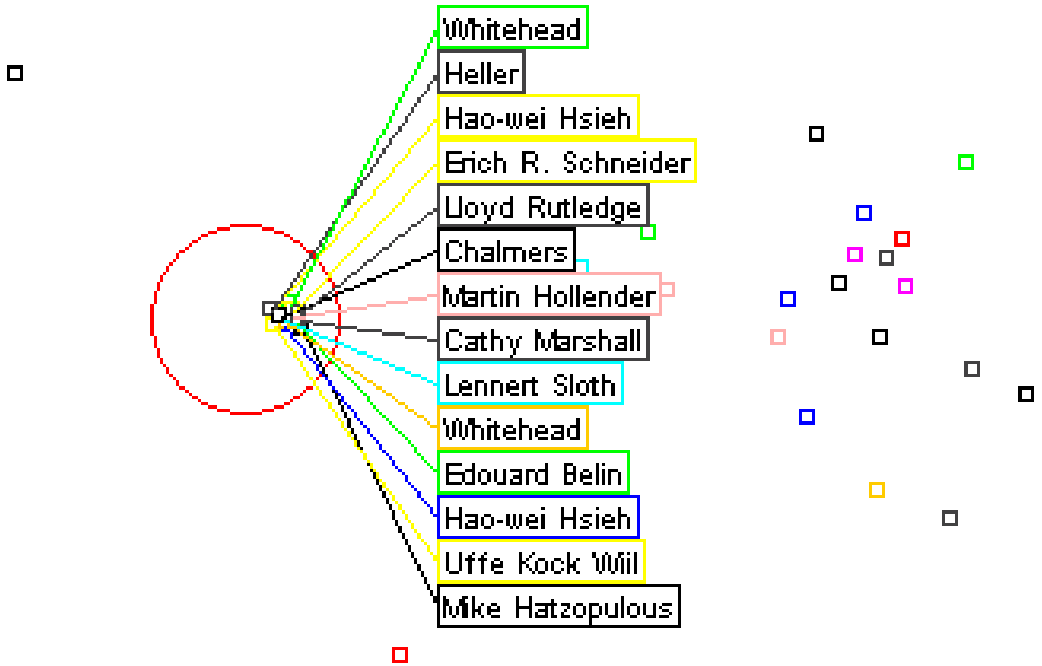
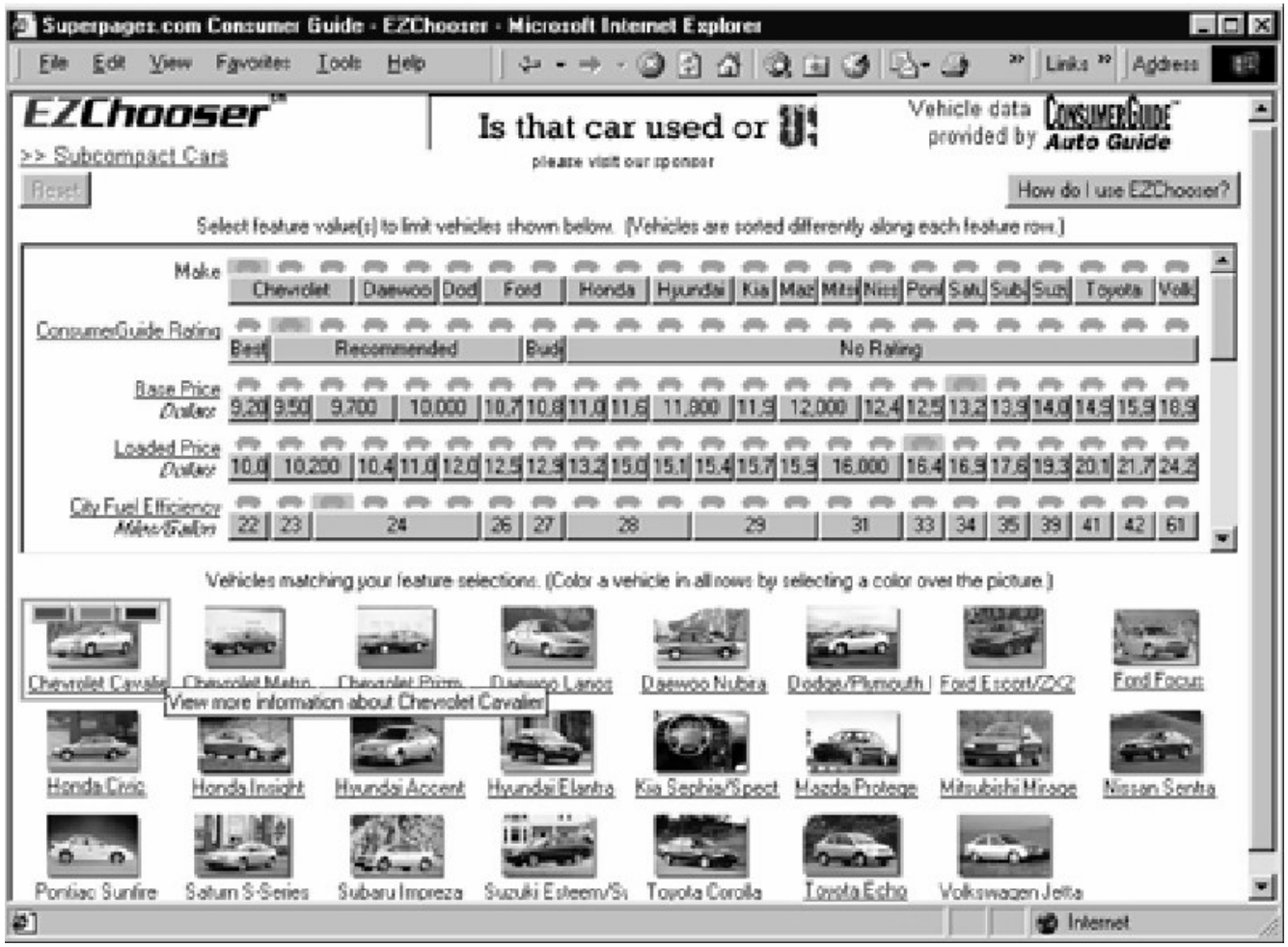
excentric labeling



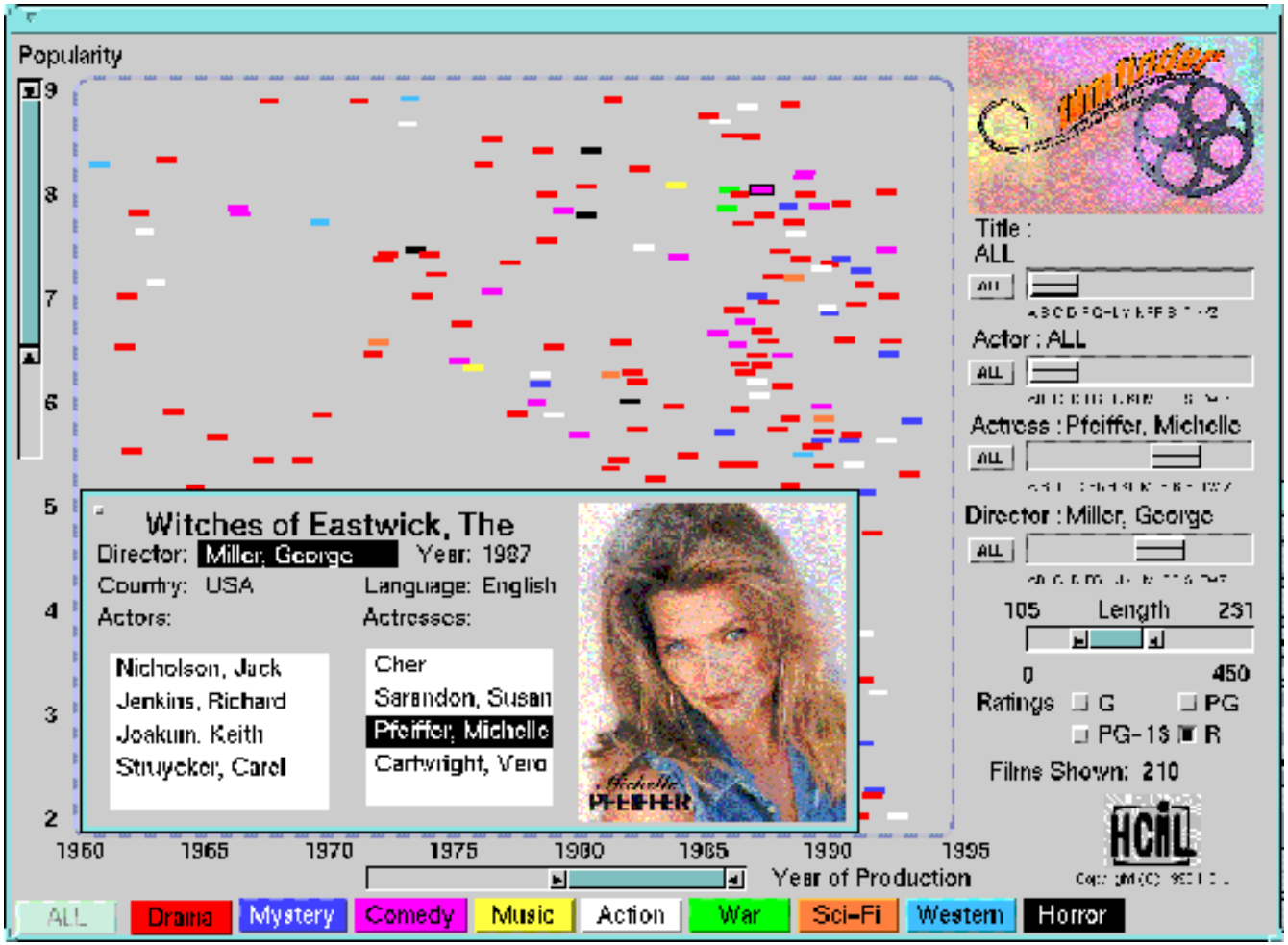
http://www.cs.umd.edu/hcil/excentric/

ezchooser



http://brisa.merl.com:8080/myezchooser/bargrams.pdf

filmfinder



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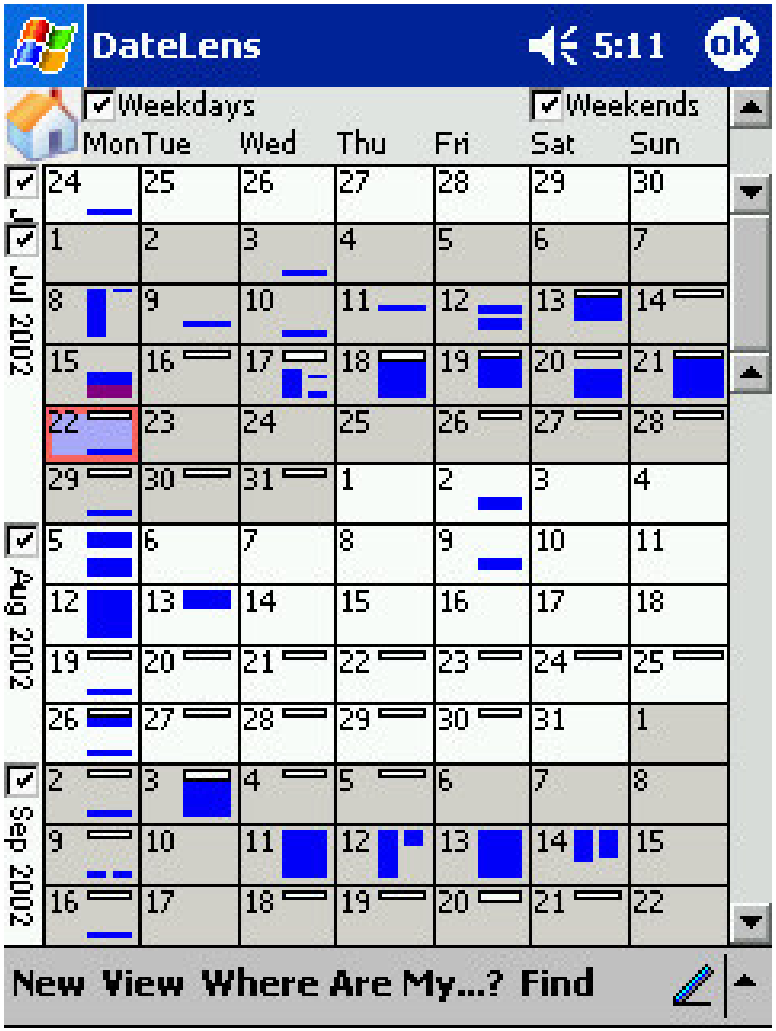
fishcal



http://www.cs.umd.edu/hcil/datelens/



fisheye view

```
    1 #define DIG 40
    2 #include <stdio.h>
...4 main()
    5 {
    6       int c, i, x[DIG/4], t[DIG/4], k = DIG/4, noprint = 0;
...8       while((c=getchar()) != EOF){
    9             if(c >= '0' && c <= '9'){
...16             } else {
   17                   switch(c){
   18                         case '+':
...27                      case '-':
...38                      case 'e':
>>39                            for(i=0;i<k;i++) t[i] = x[i];
   40                         break;
   41                      case 'q':
...43                      default:
...46                   }
   47                   if(!noprint){
...57                   }
   58             }
   59             noprint = 0;
   60       }
   61 }
```

Figure 4(b). A fisheye view of the C program. Line numbers are in the left margin. "..." indicates missing lines. ">>" signals the current line.

http://citeseer.ist.psu.edu/furnas81fisheye.html

fluid text

When in the Course of human Events, it becomes necessary for one People to dissolve the Political Bands which have connected them with another, and to assume among the Powers of the Earth, the separate and equal Station to which the Laws of Nature and of Nature's God entitle them, a decent Respect to the Opinions of Mankind requires that they should declare the causes which impel them to the Separation.
We hold these Truths to be self-evident, that all Men are created

As unequal in many ways as humans may be, no one human or class of humans is superior to another human or class of humans.

equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the Pursuit of Happiness -- That to secure these Rights, Governments are instituted among Men, deriving their just Powers from the Consent of the Governed, that whenever any Form of Government

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Consent of the Governed, that whenever any Form of Government becomes destructive of these Ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its

When in the Course of human Events, it becomes necessary for one People to dissolve the Political Bands which have connected them with another, and to assume among the Powers of the Earth, the separate and equal Station to which the Laws of Nature and of Nature's God entitle them, a decent Respect to the Opinions of Mankind requires that they should declare the causes which impel them to the Separation.
We hold these Truths to be self-evident, that all Men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the Pursuit of Happiness -- That to secure these Rights, Governments are instituted among Men, deriving their just Powers from the Consent of the Governed, that whenever any Form of Government becomes destructive of these Ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its

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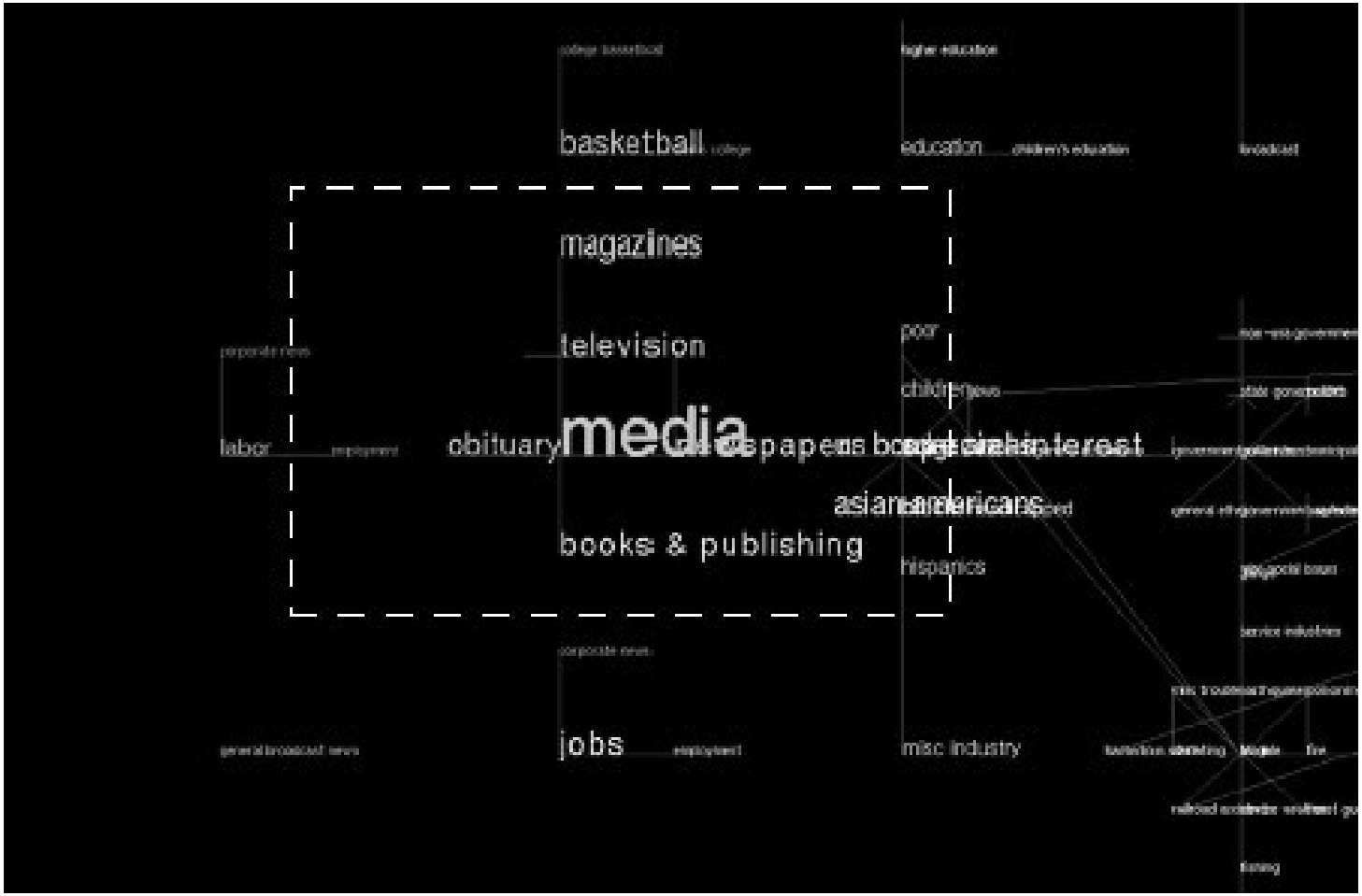
http://www2.parc.com/istl/projects/fluid/

galaxy of news



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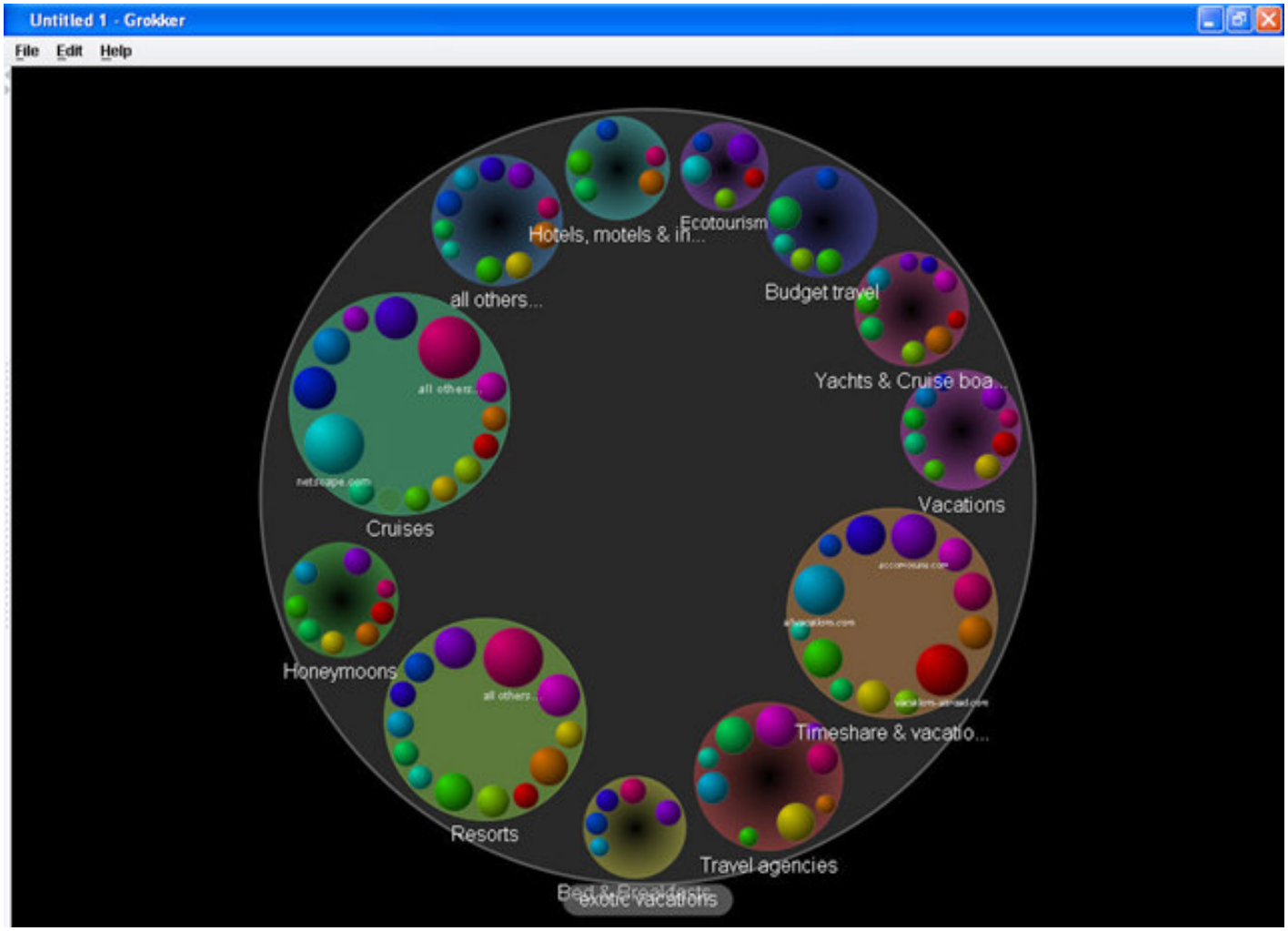
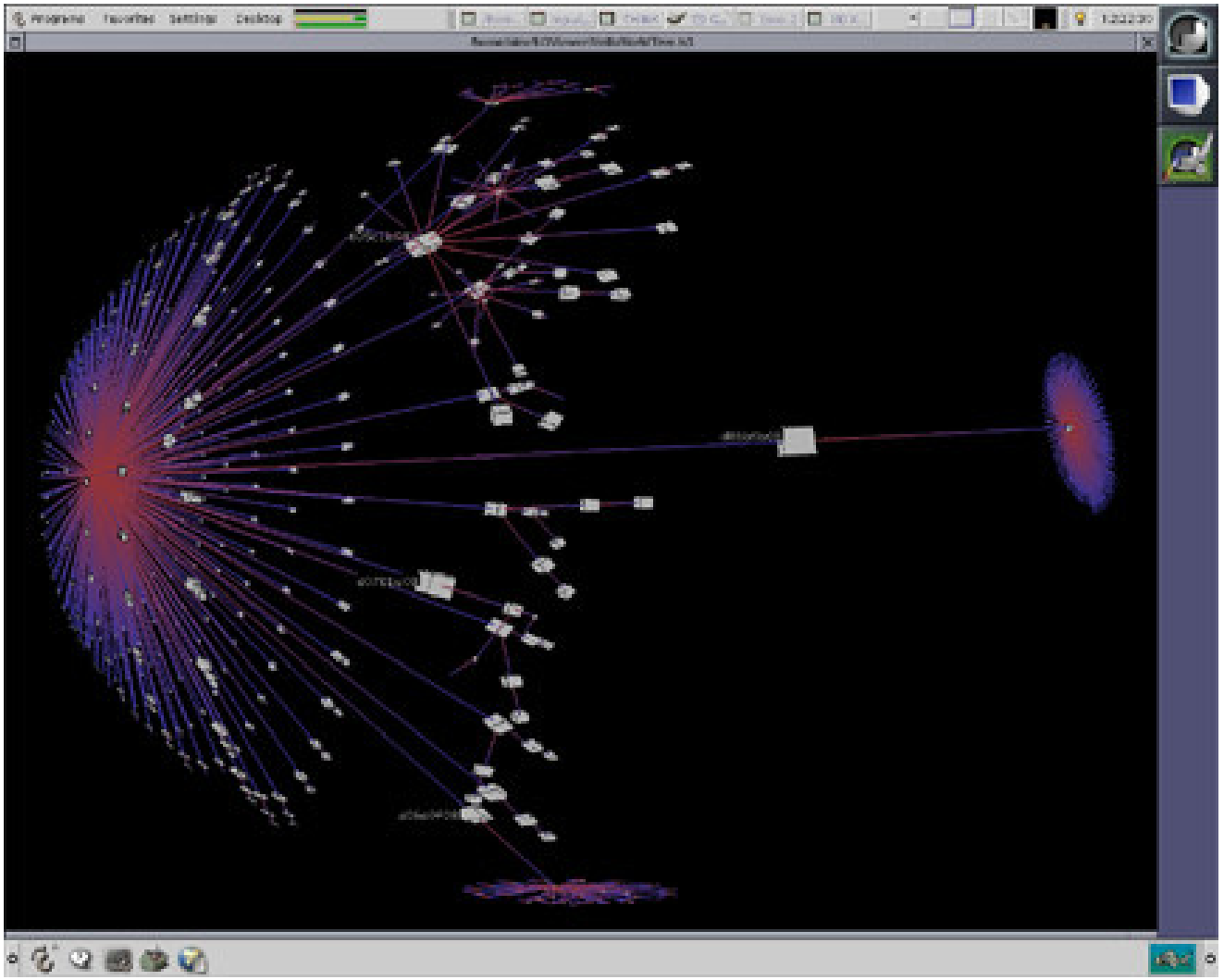
grokker



http://www.xenky.com/news/ITBulletin_files/grokmap.jpg

http://www.grokker.com/

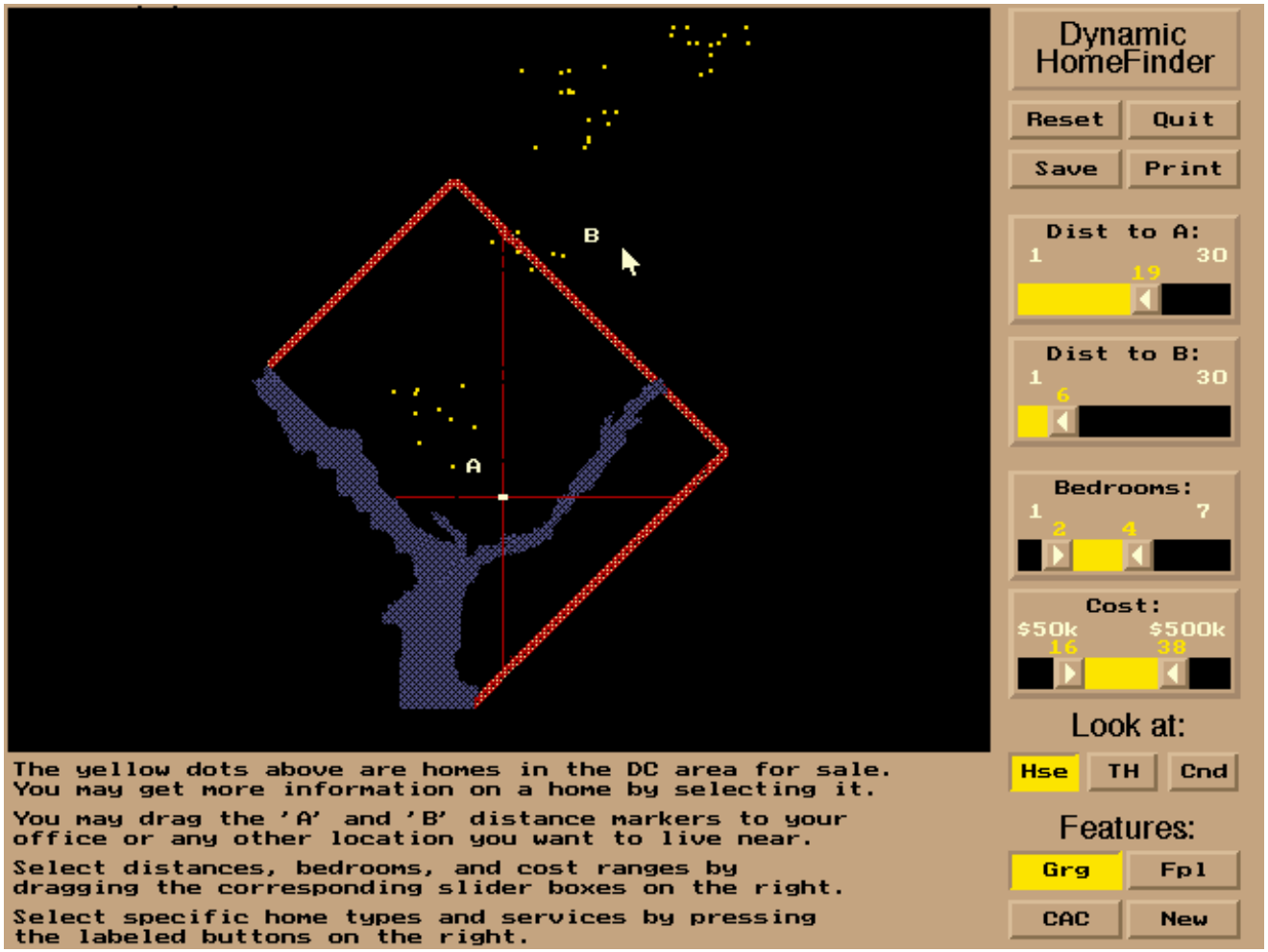
h3viewer



http://www.mcs.vuw.ac.nz/~alex/ownershipvisualisations/index.shtml

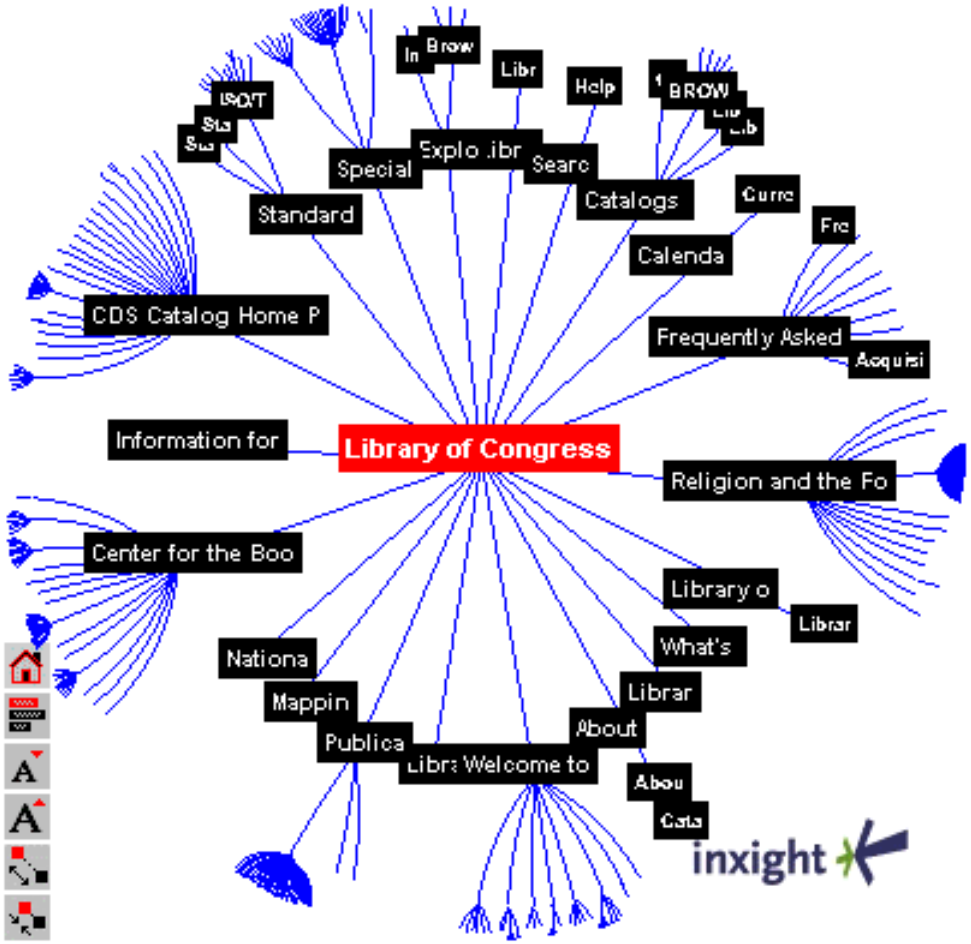
http://graphics.stanford.edu/~munzner/h3/

homefinder



http://www.sapdesignguild.org/community/book_people/visualization/controls/HomeFinder.htm

hyperbolic trees



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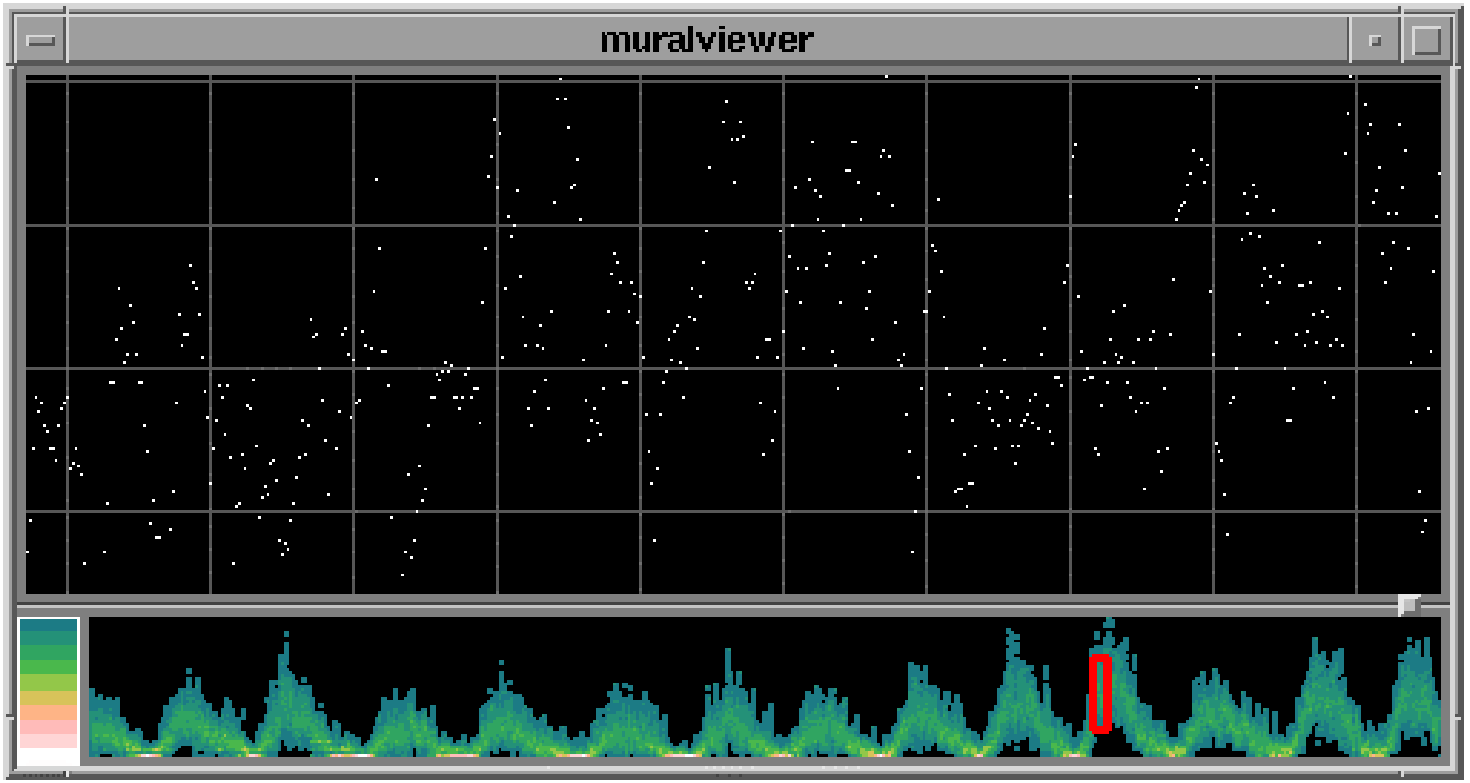
http://www.inxight.com/

information mural



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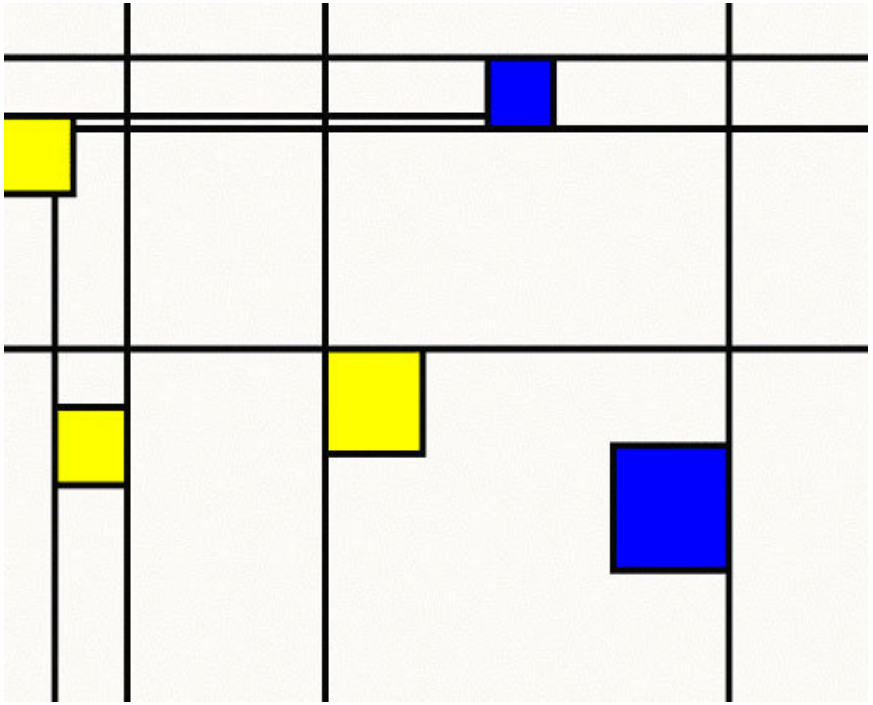
informative art





http://www.viktoria.se/fal/projects/infoart/

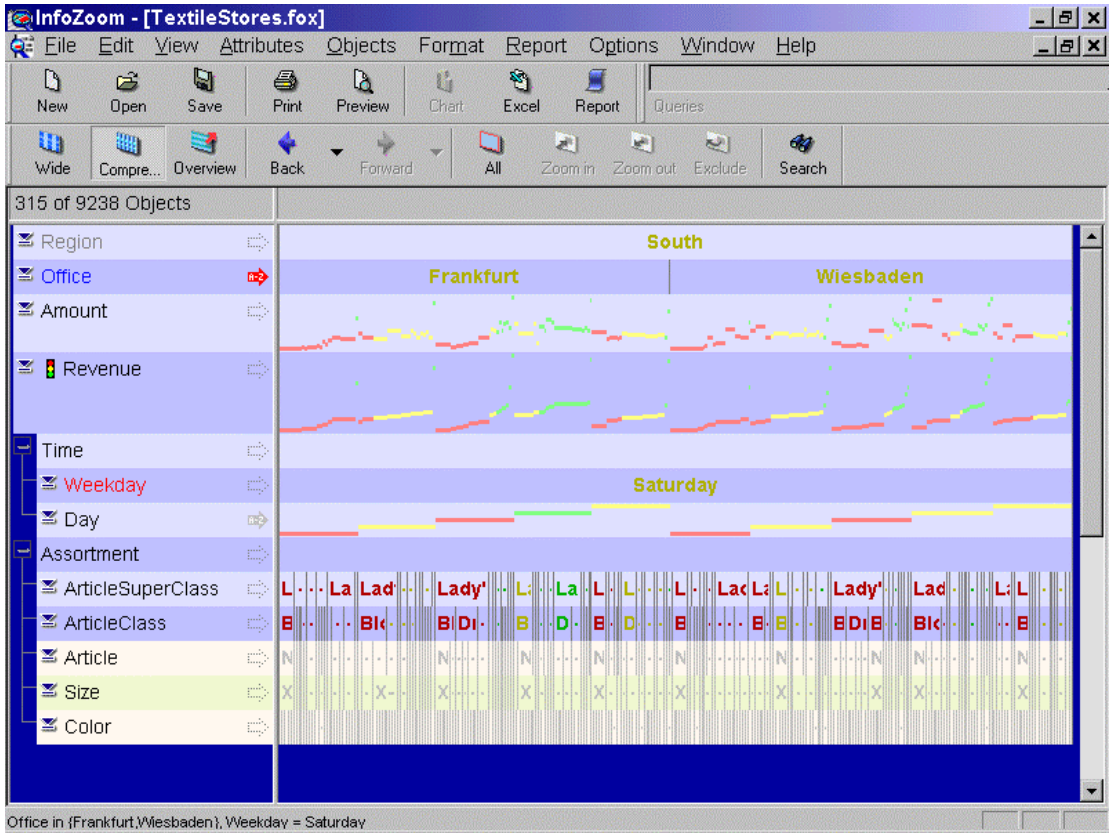
infocanvas





http://www.cc.gatech.edu/gvu/ii/infoart/

infozoom



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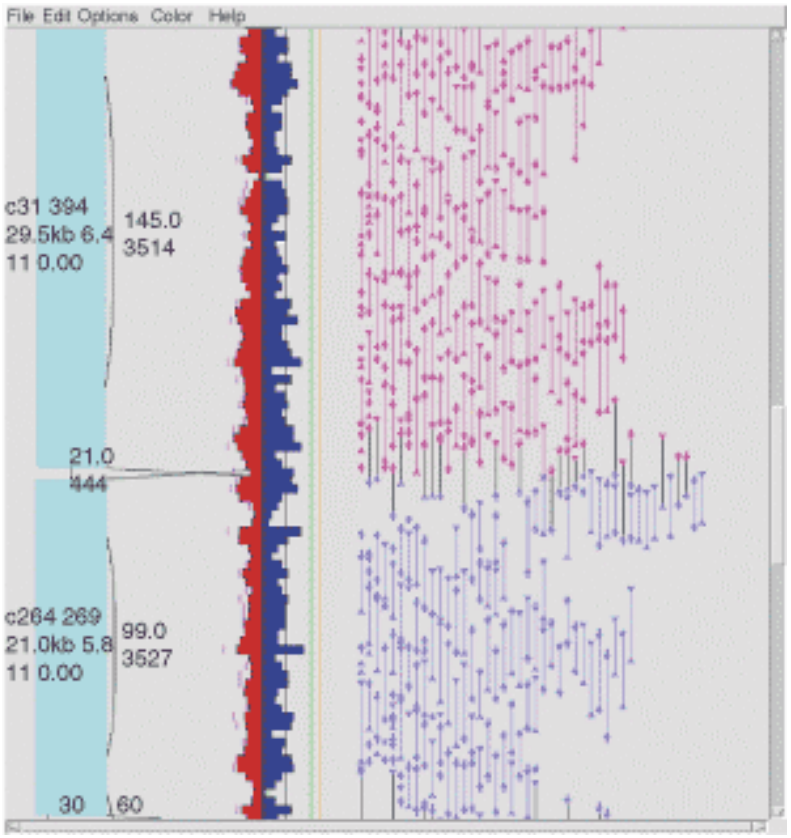
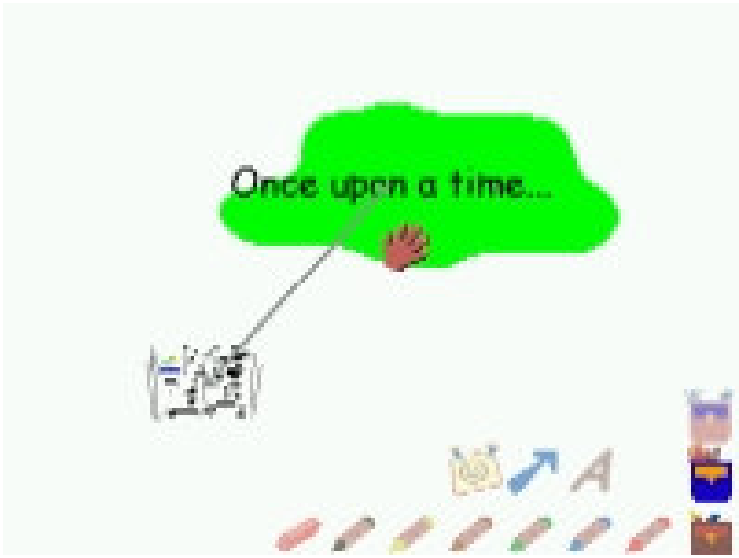
jazz





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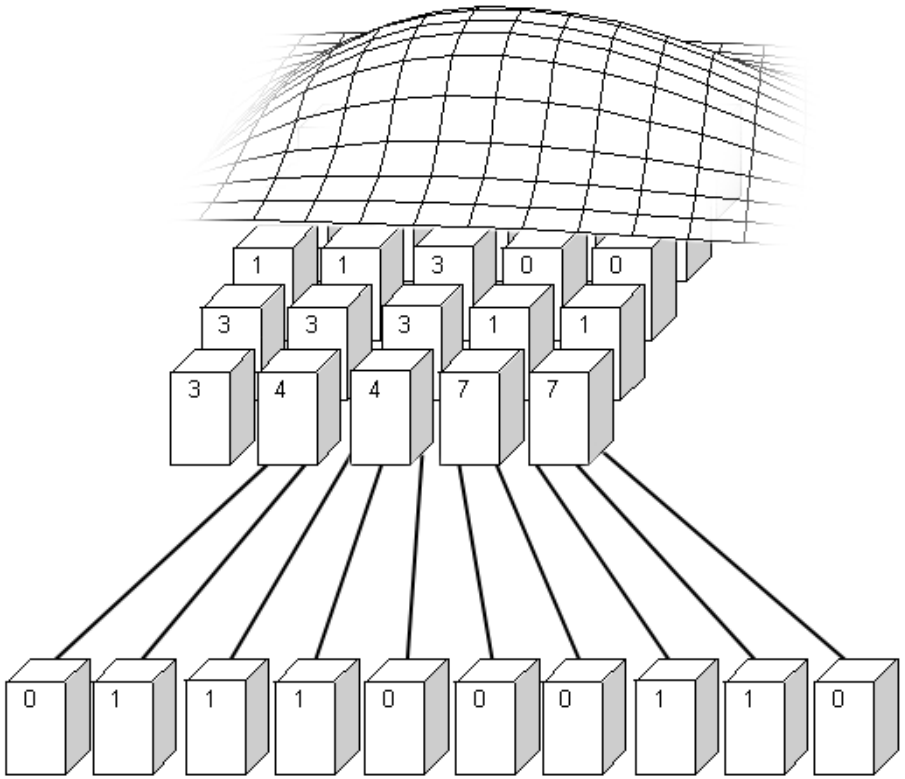
http://www.cs.umd.edu/hcil/jazz/index.shtml

kohonen map



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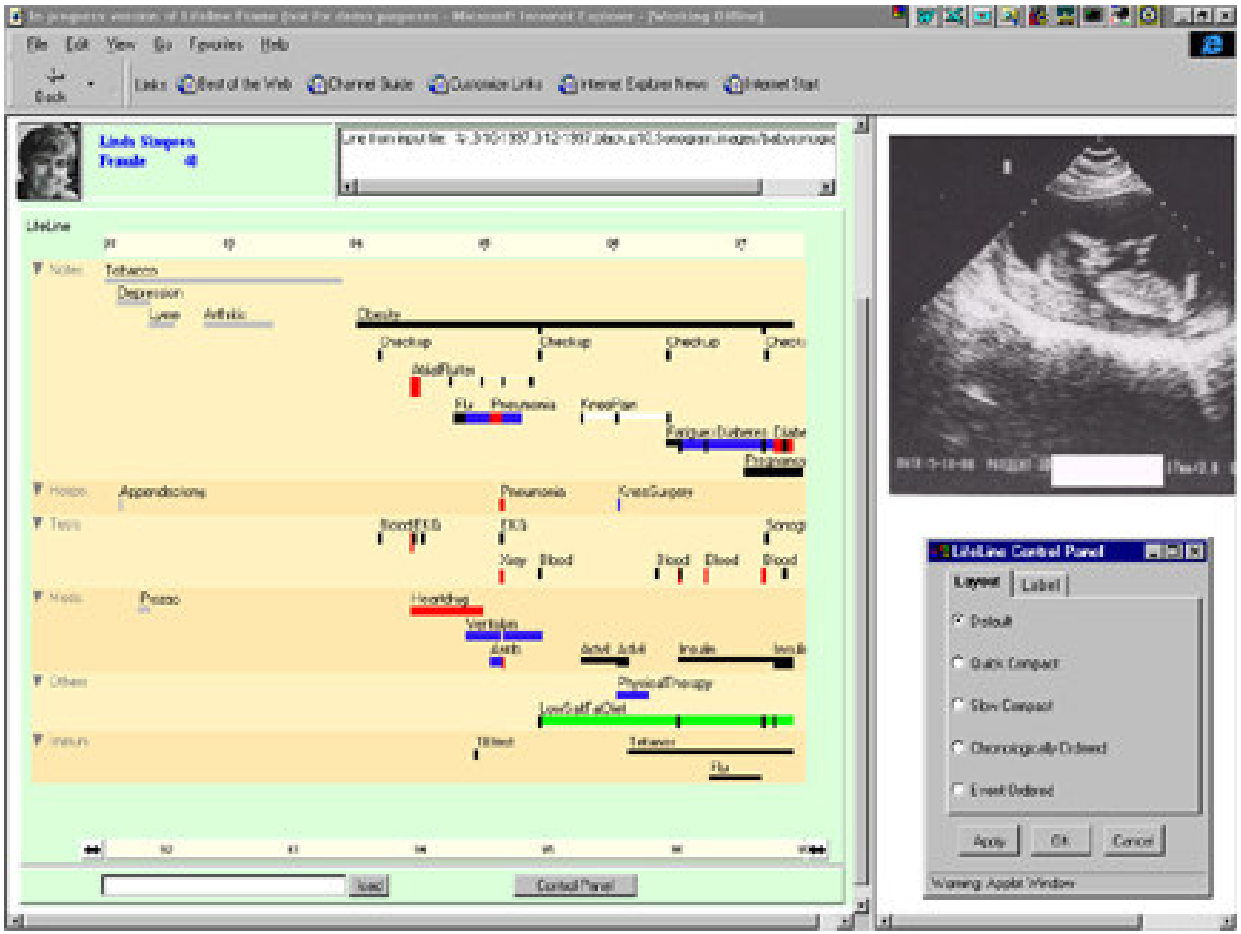
http://www.cis.hut.fi/research/som-research/teuvo.html

lifelines



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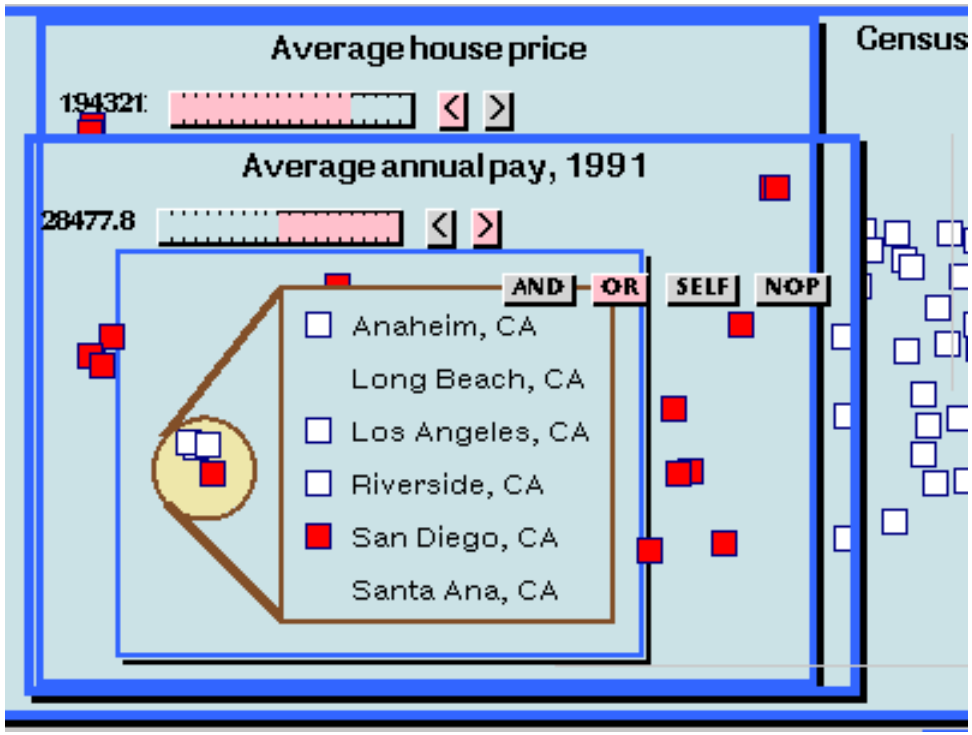
magic lens



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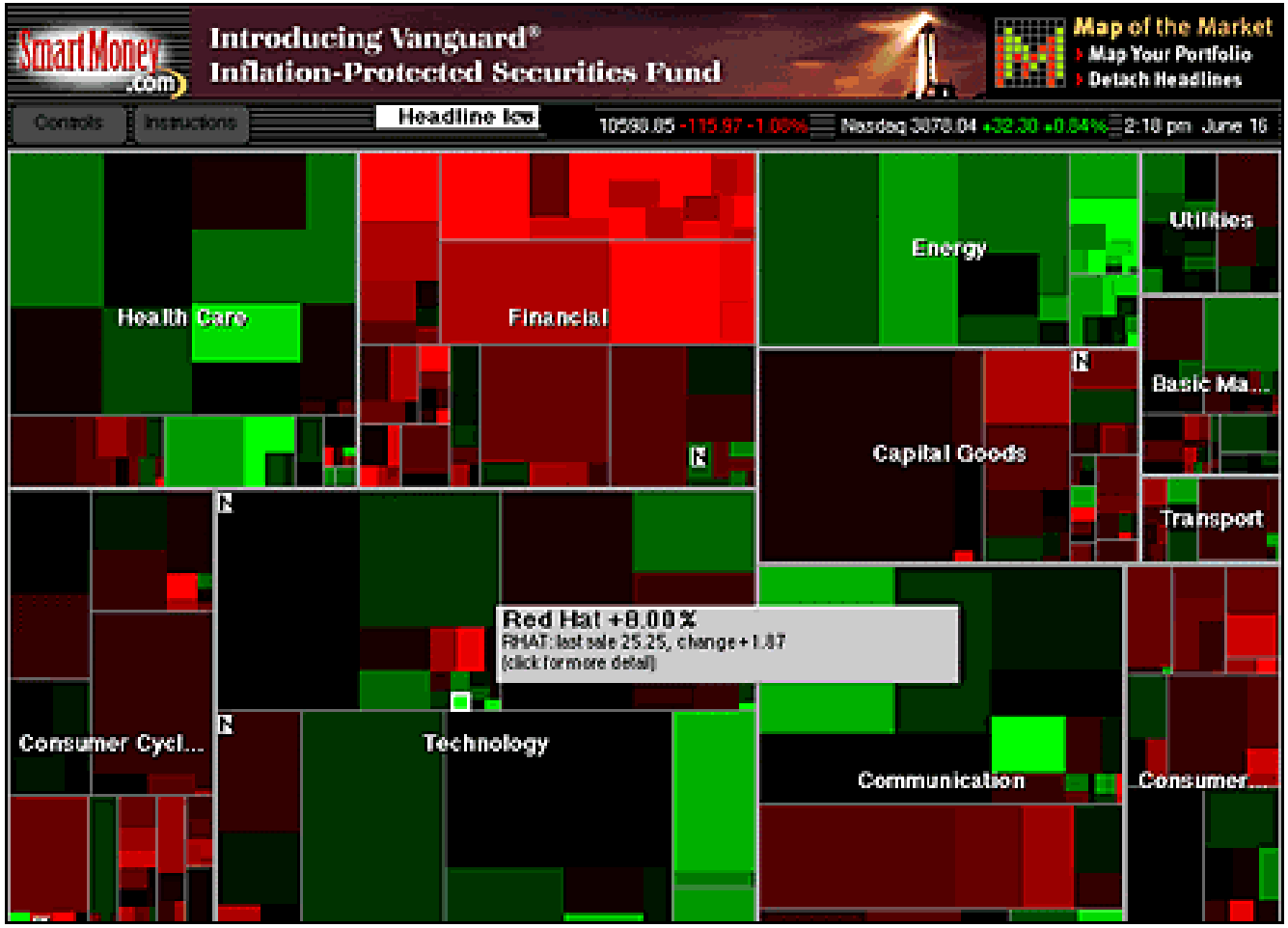
http://www2.parc.com/istl/projects/MagicLenses/default.html

map of the market



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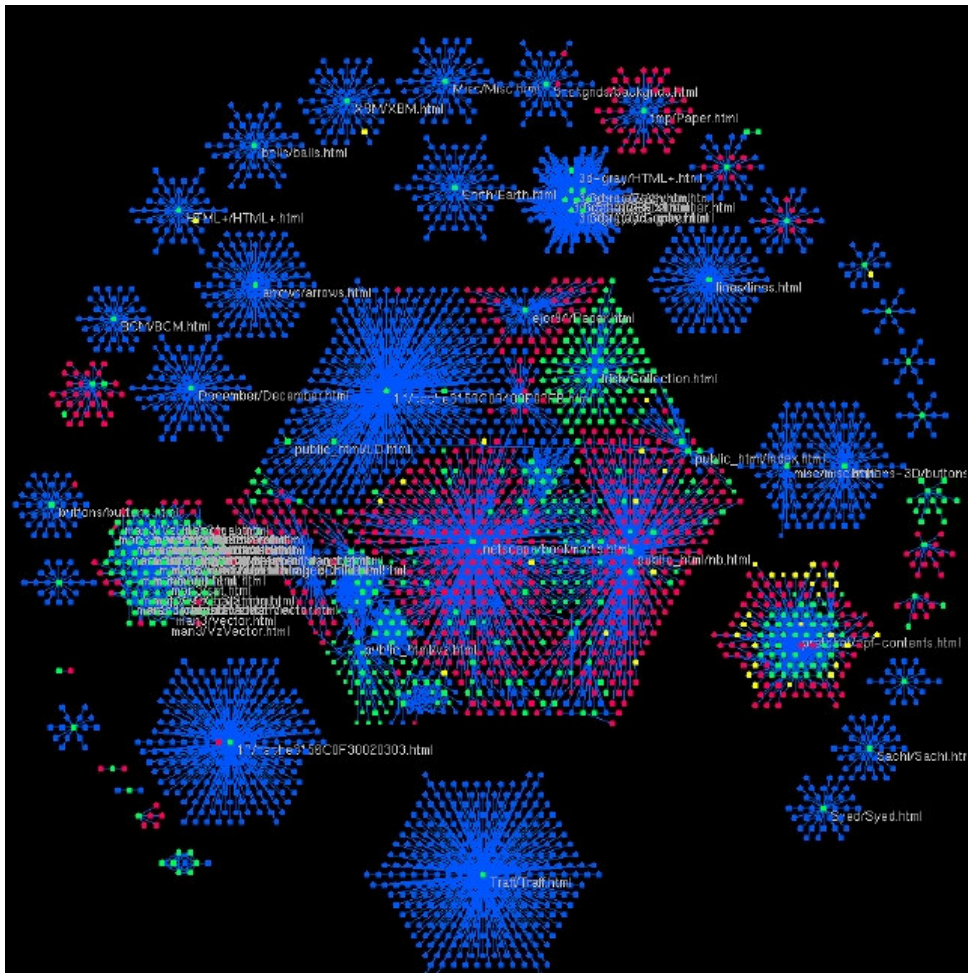
http://www.smartmoney.com/marketmap/

nicheworks



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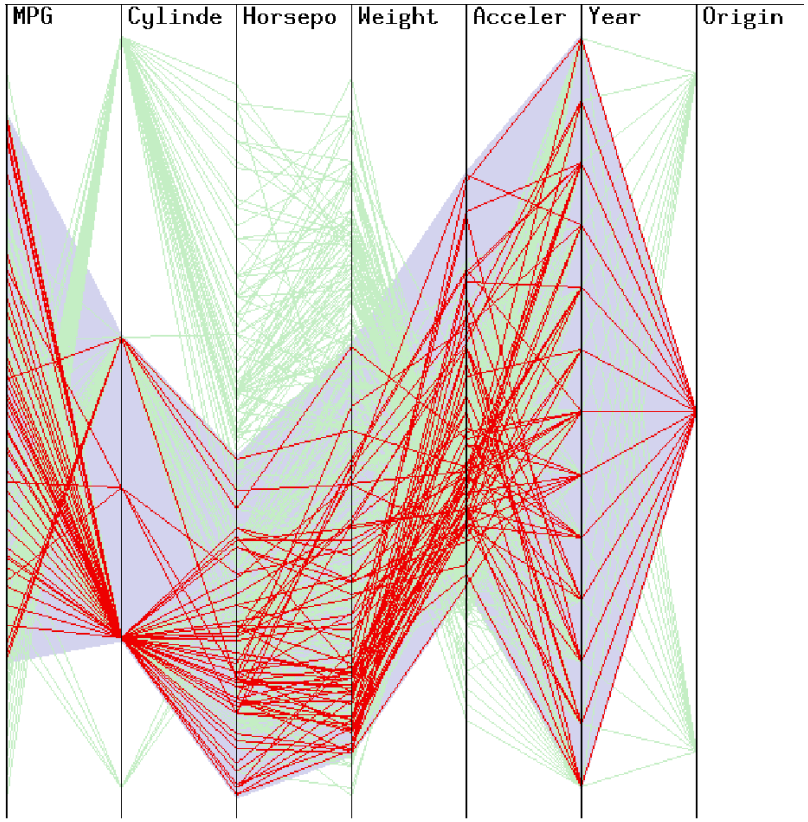
http://citeseer.ist.psu.edu/wills97nicheworksinteractive.html

pad++



http://www.cs.umd.edu/hcil/pad++/

parallel coordinates



A. Inselberg and B. Dimsdale. *Parallel coordinates: A tool for visualizing multidimensional geometry*. Proc. of Visualization '90, p. 361-78, 1990.

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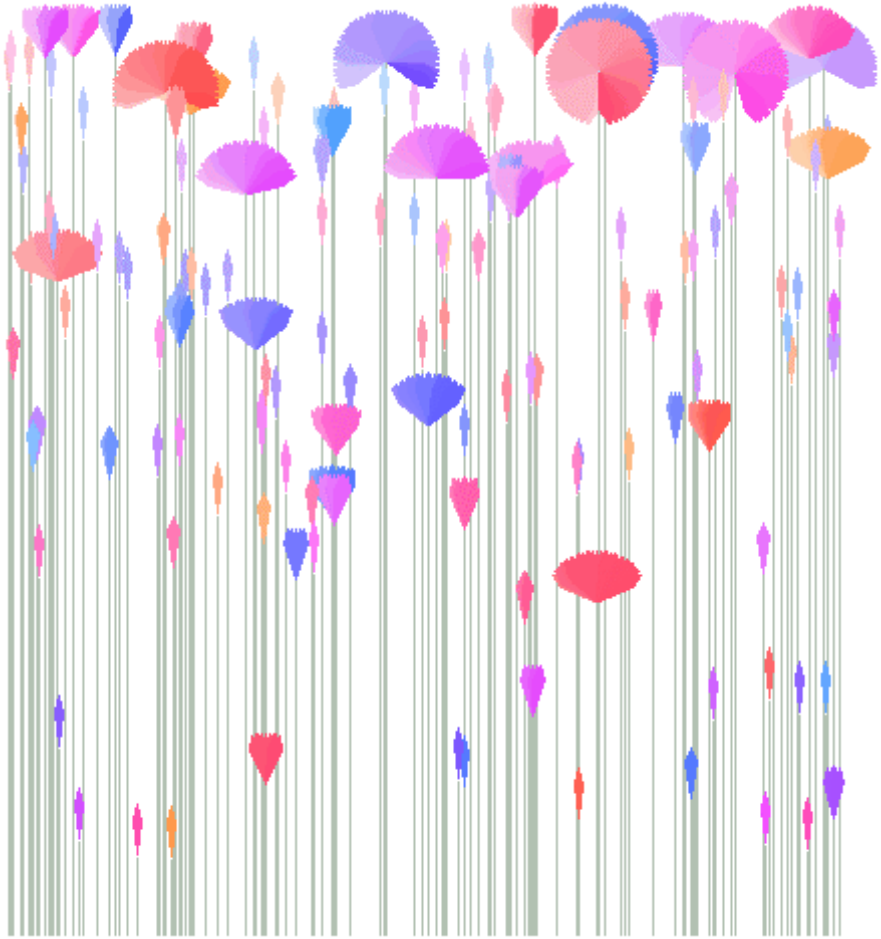
peoplegarden



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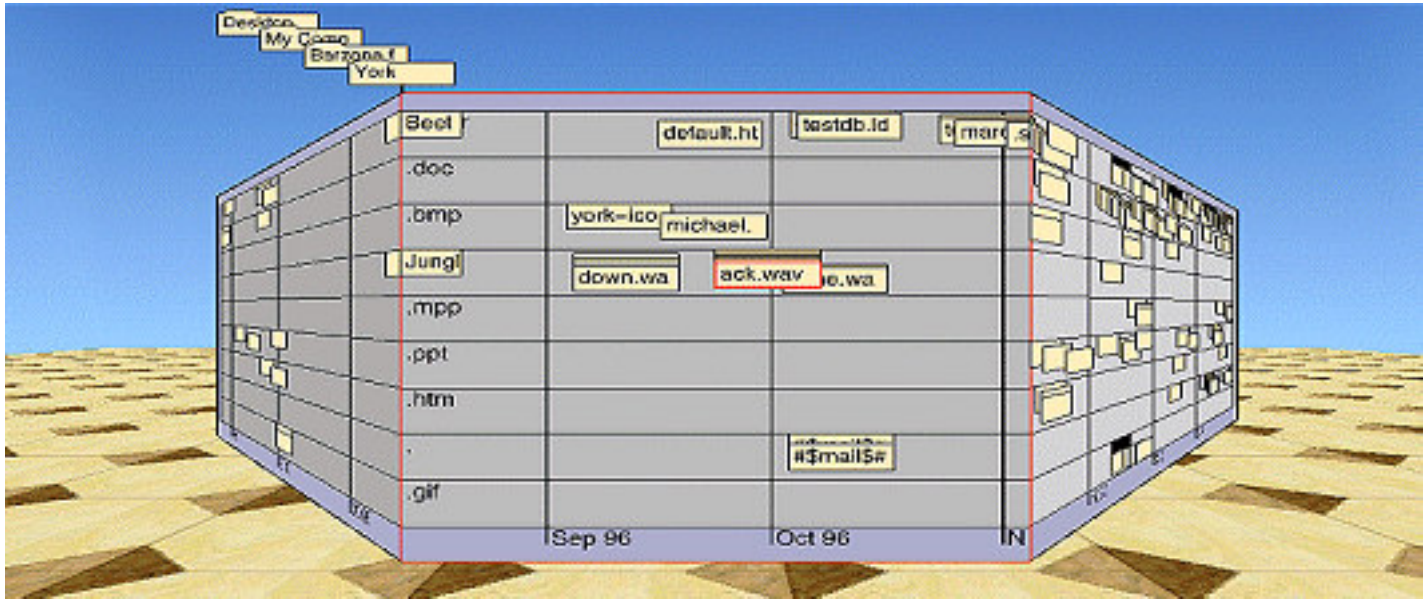
perspective wall



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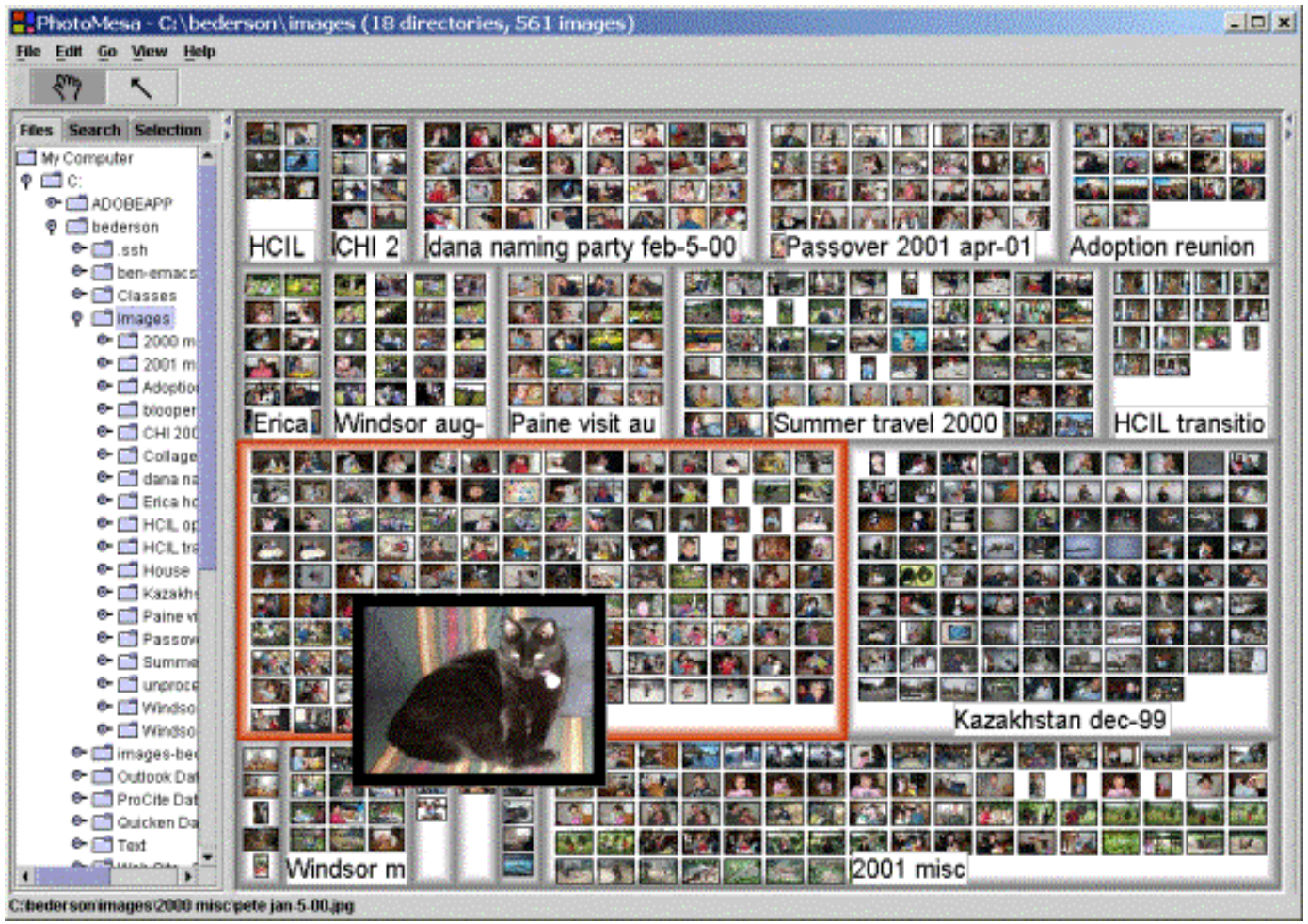

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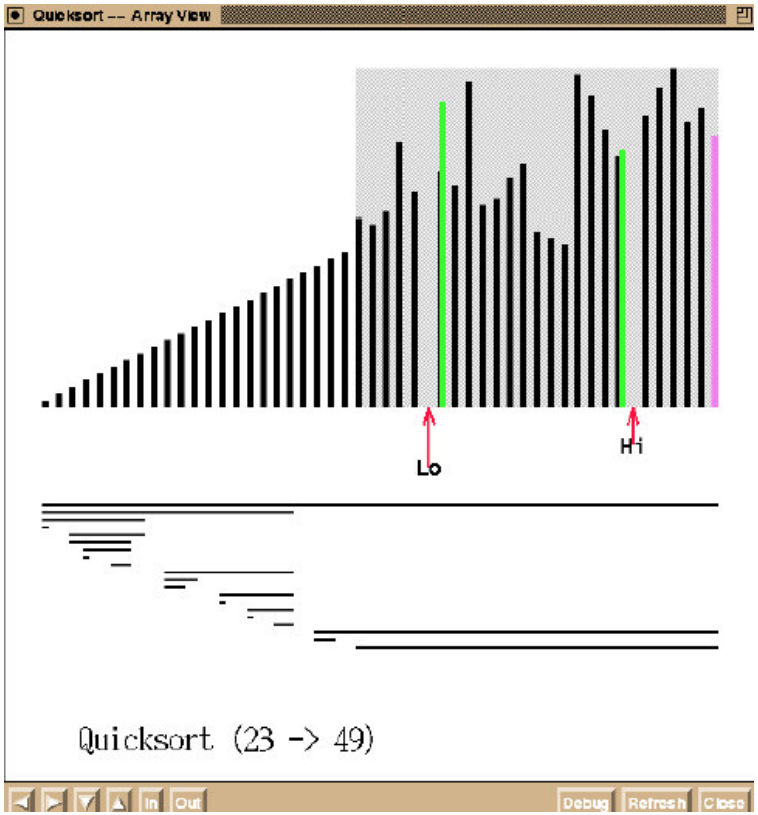
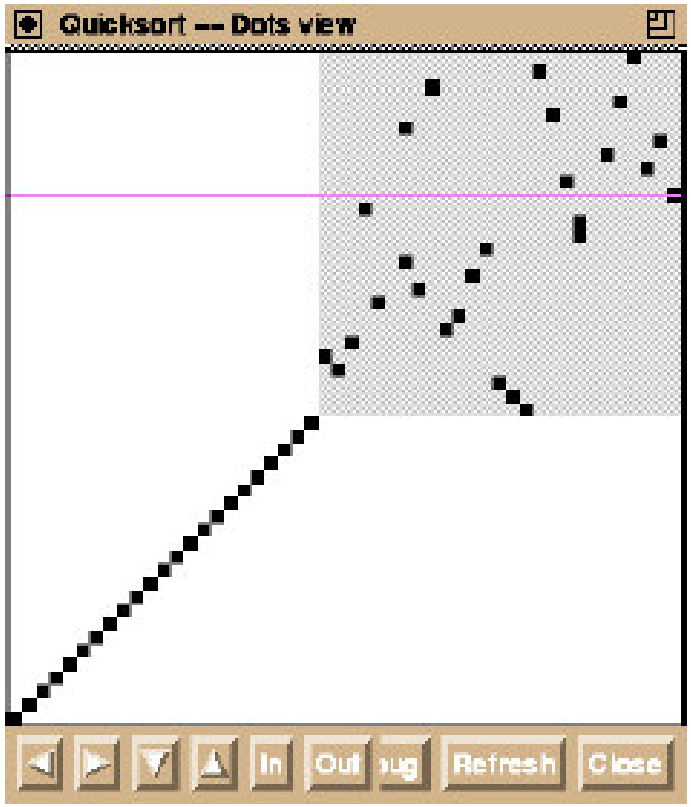
polka







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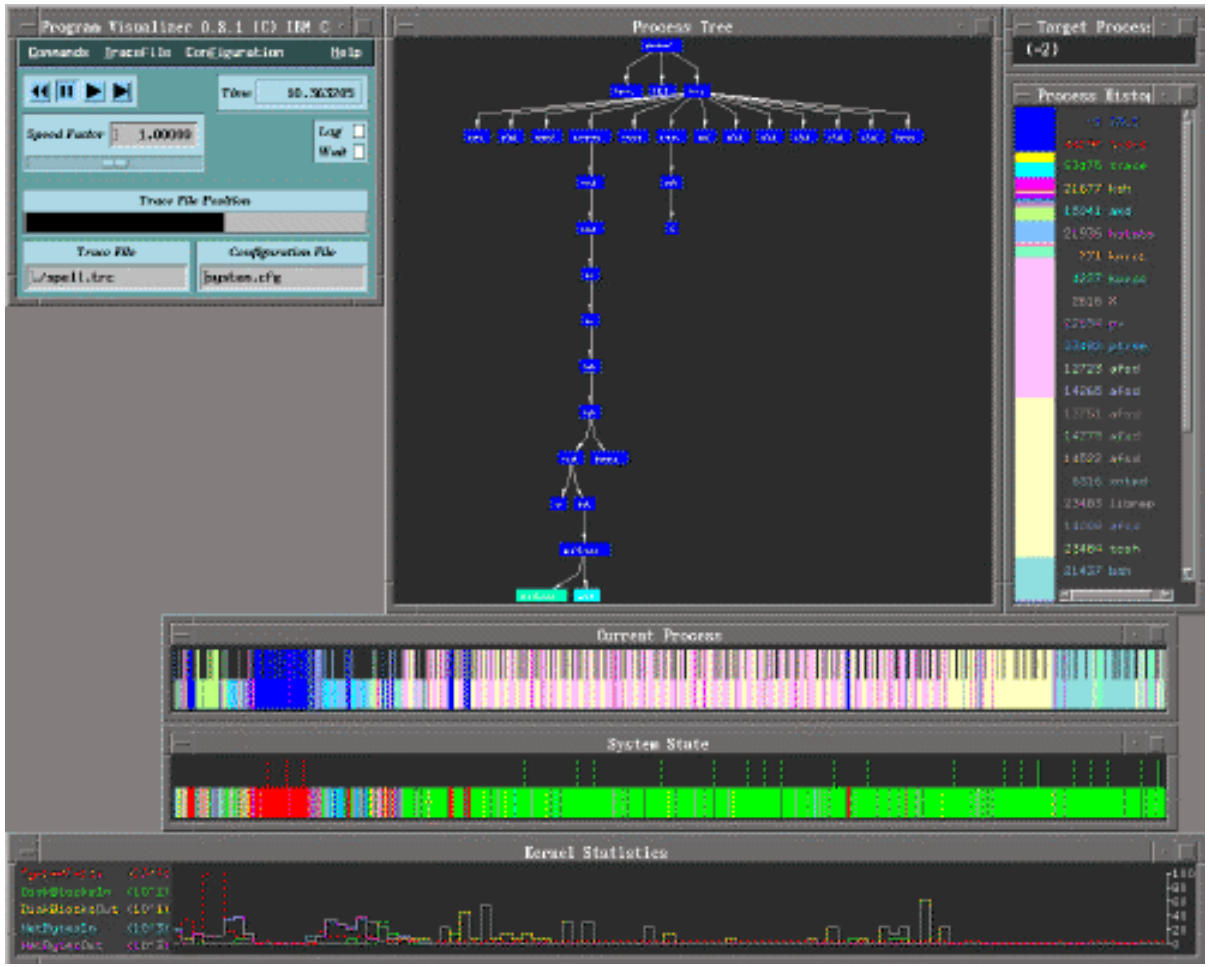
pv



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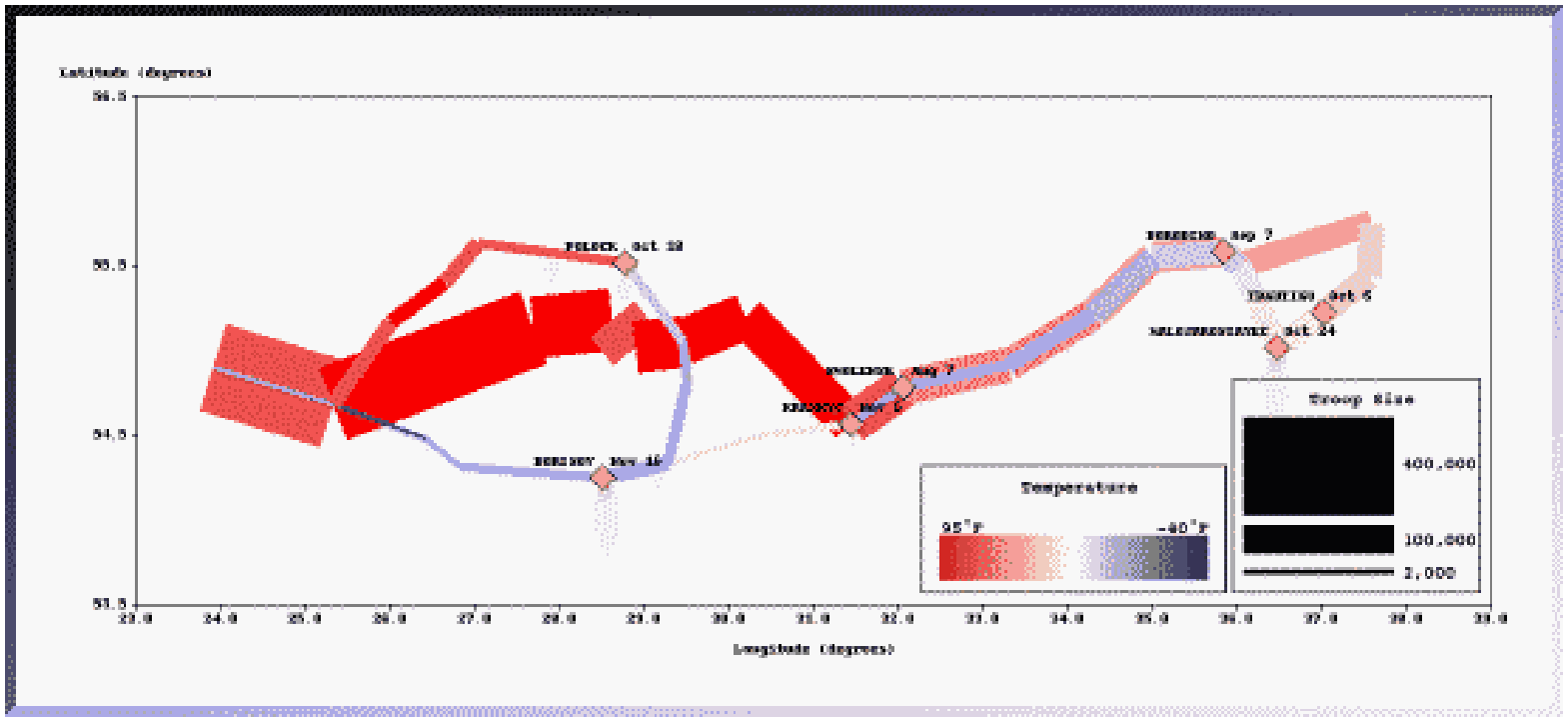
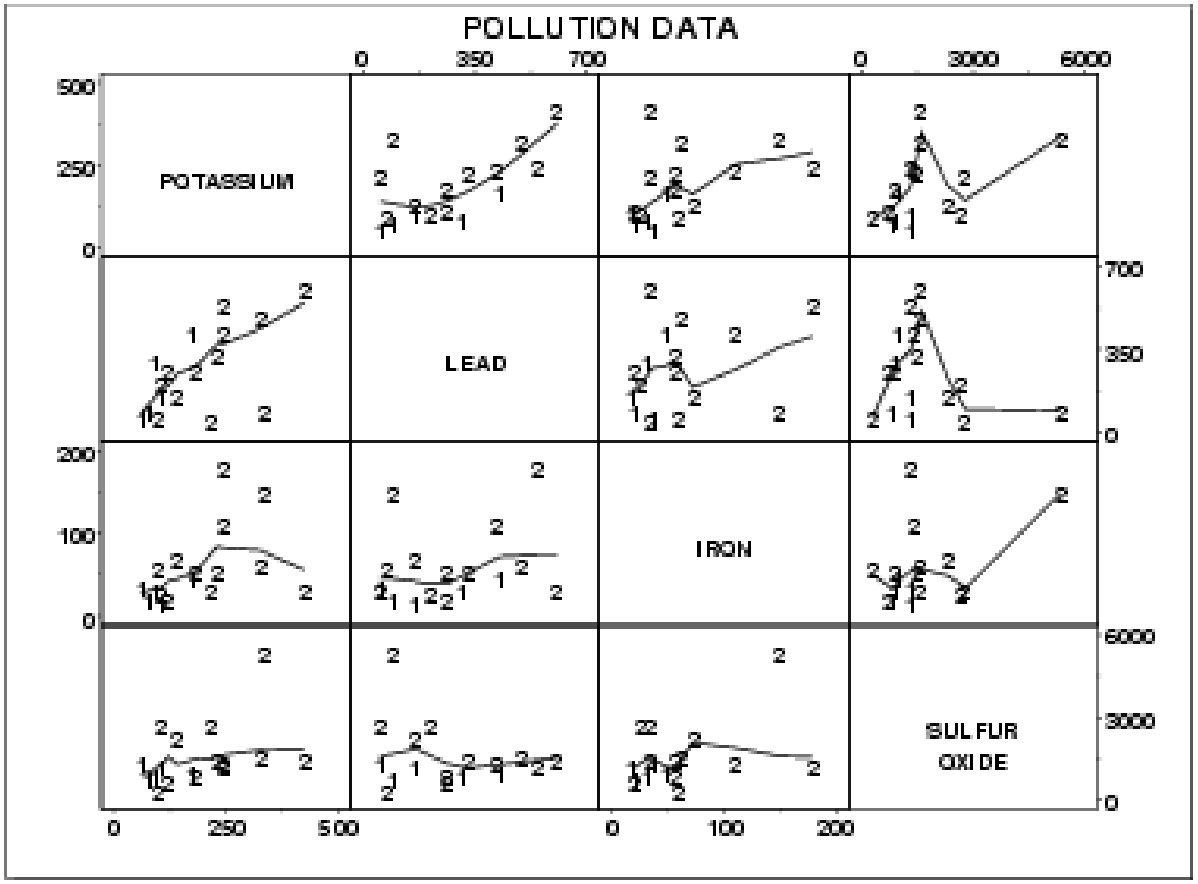


http://www-2.cs.cmu.edu/~sage/

scatterplot matrix



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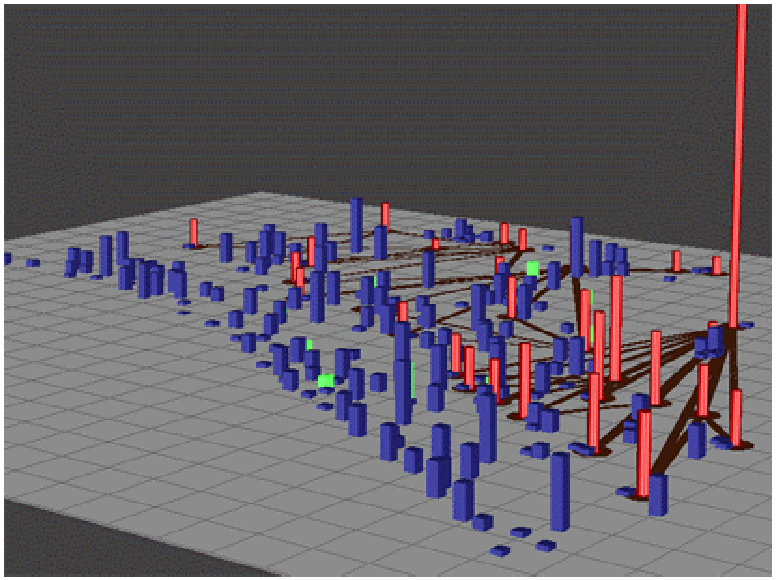

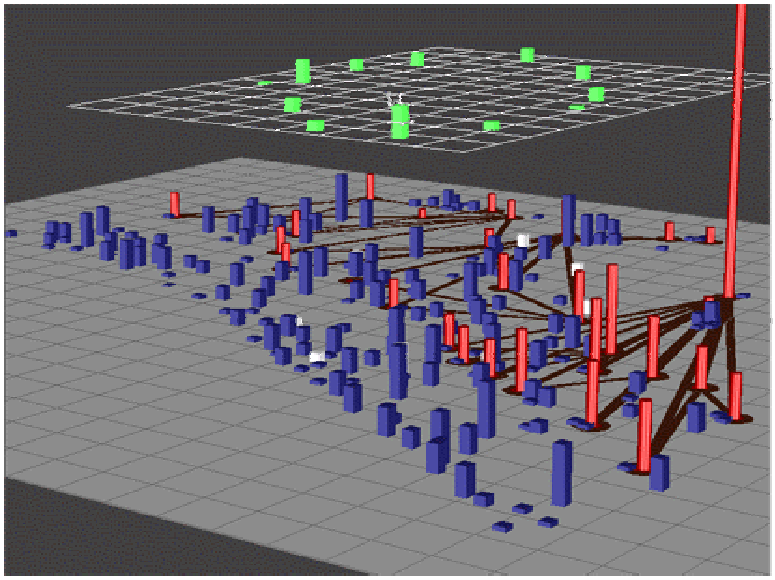

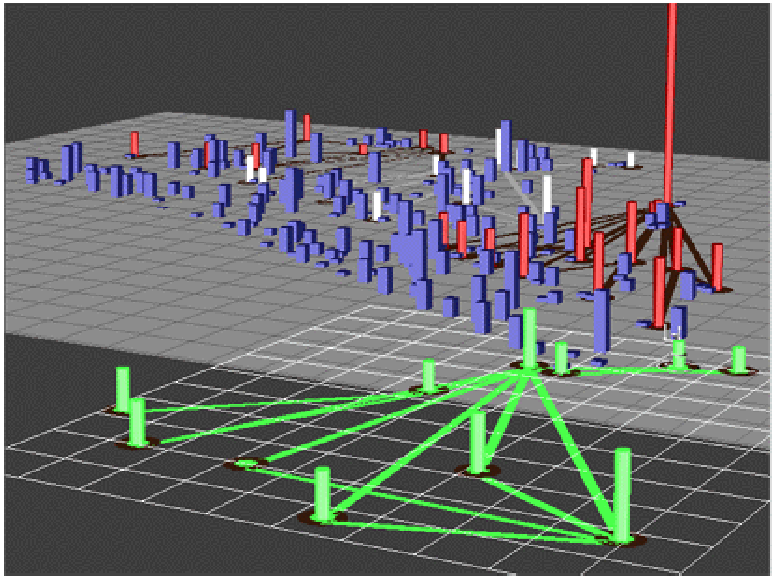

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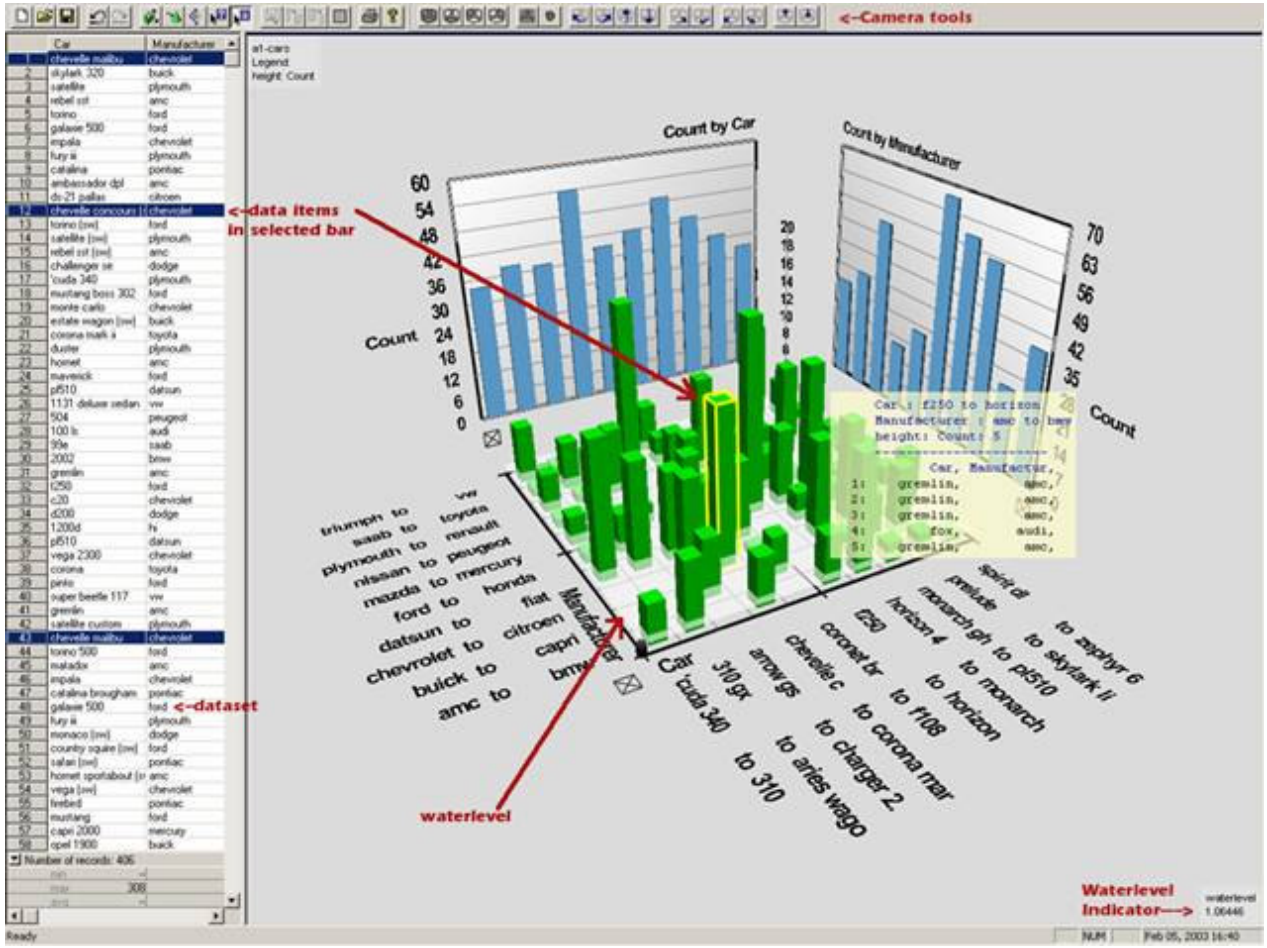

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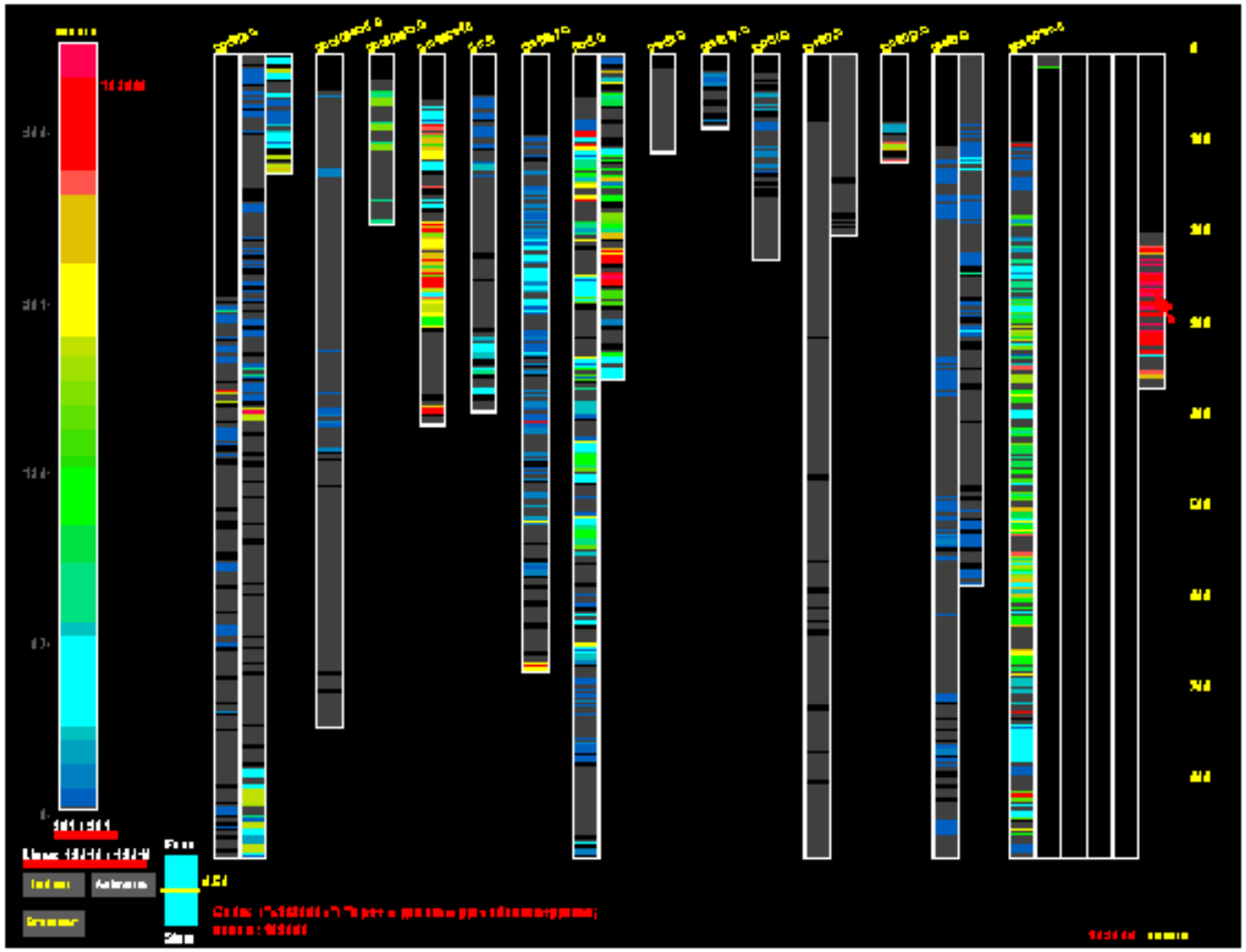

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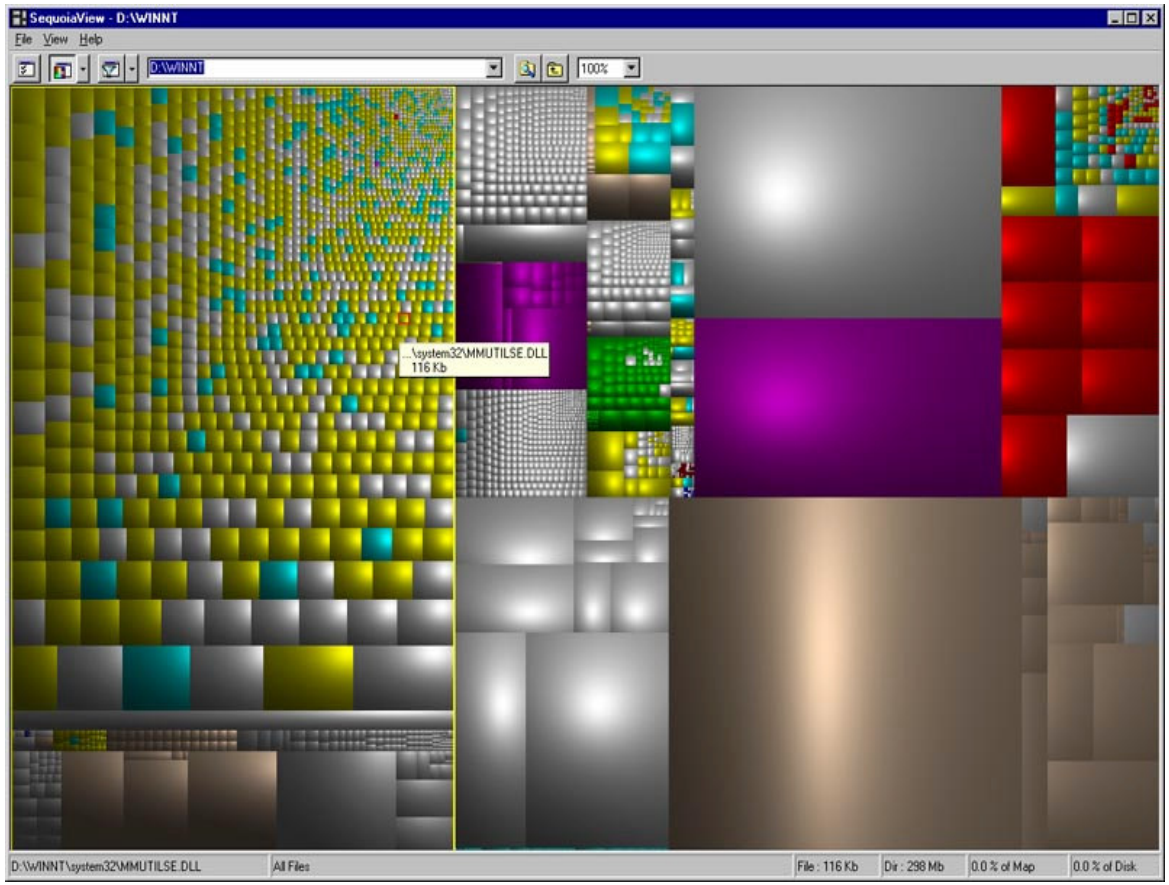

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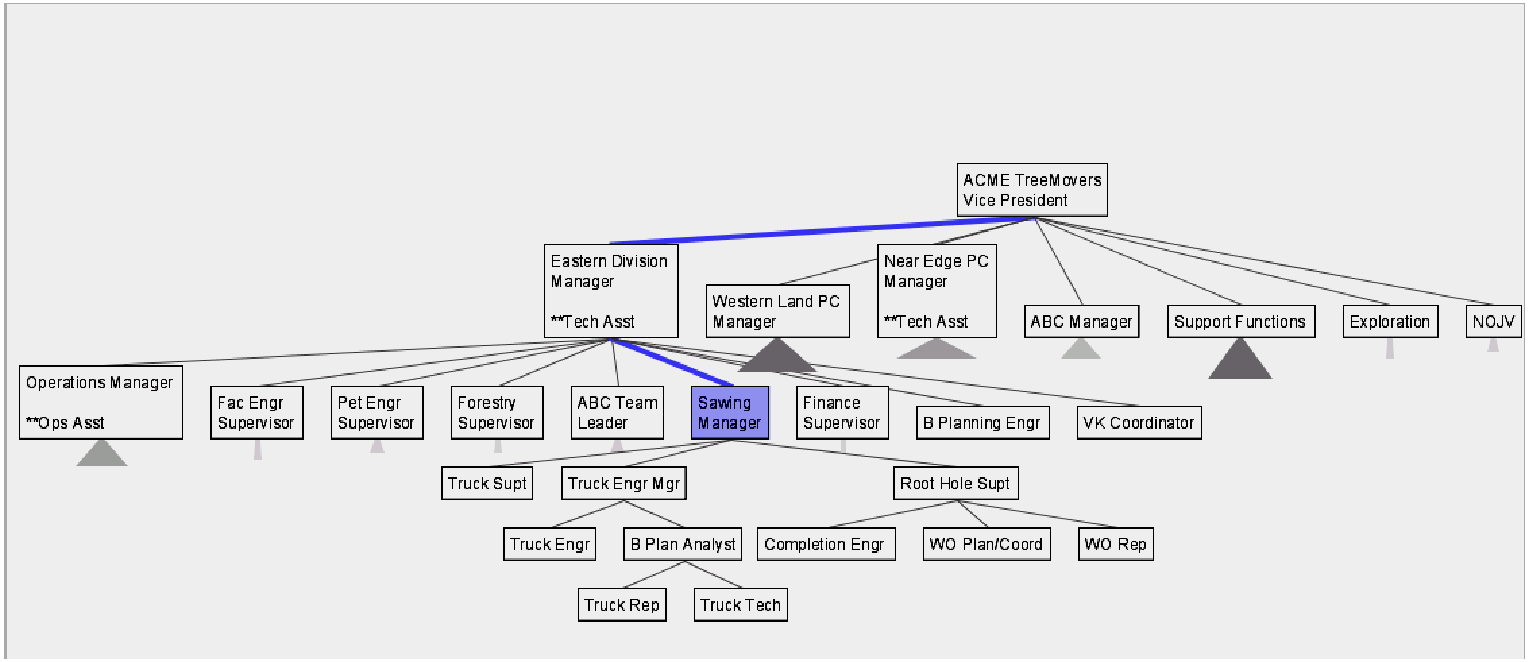
spacetree



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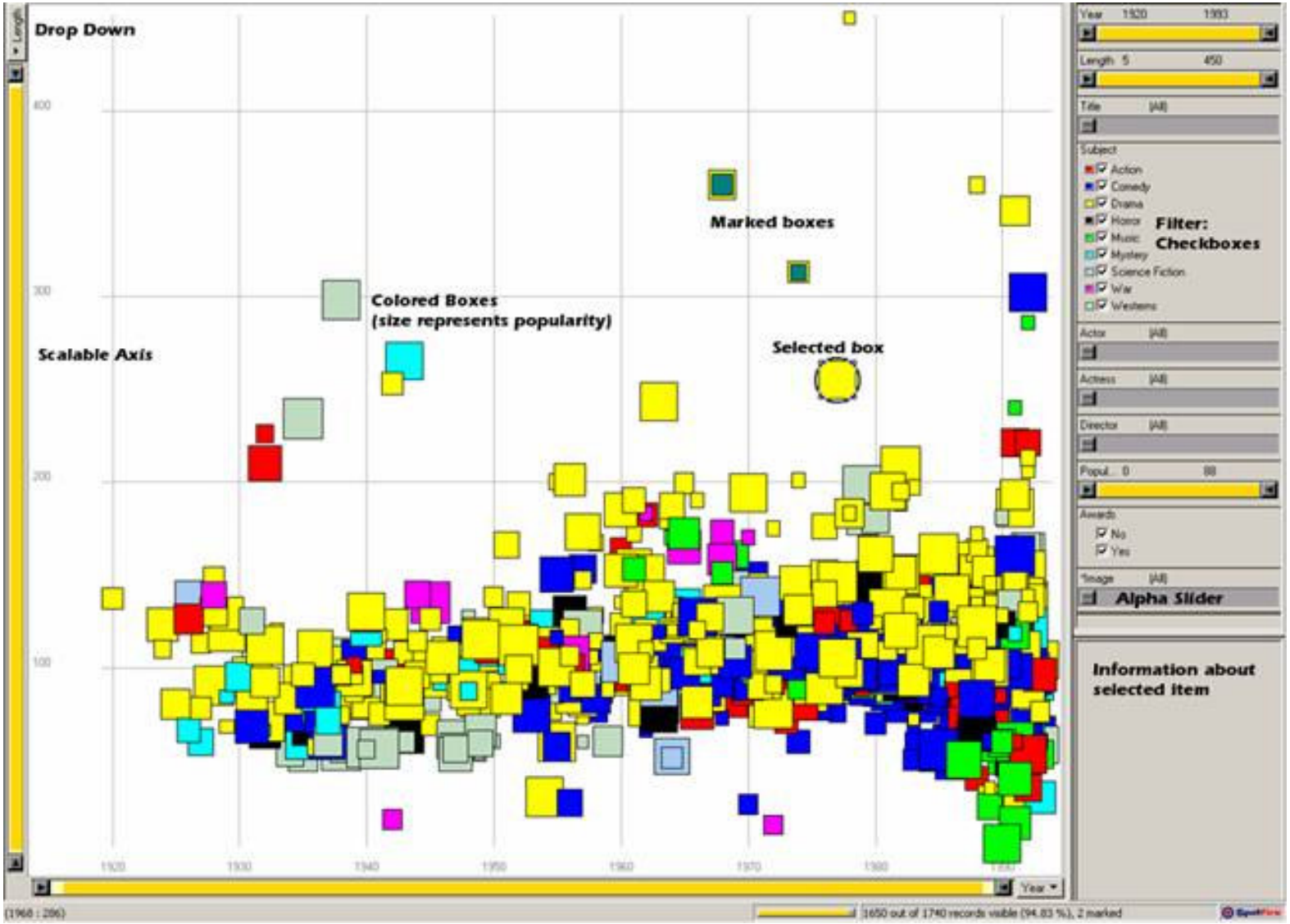

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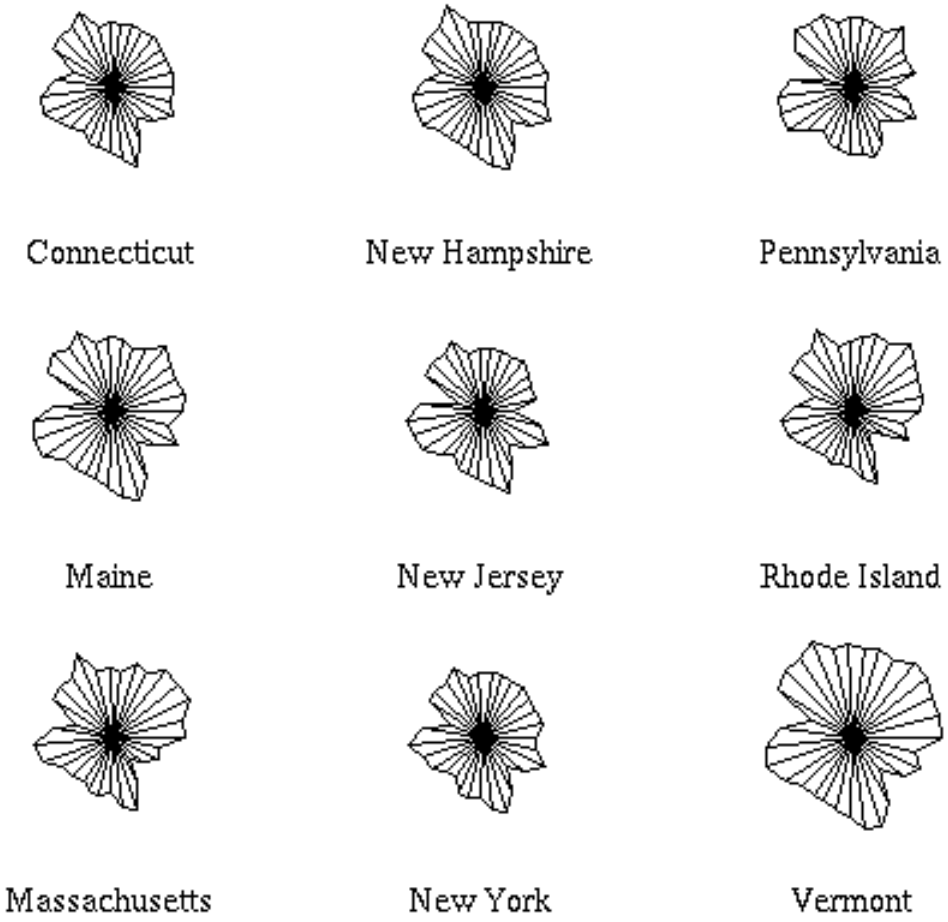
star plot



Chambers, John, William Cleveland, Beat Kleiner, and Paul Tukey, (1983), *Graphical Methods for Data Analysis*, Wadsworth.

http://seamonkey.ed.asu.edu/~behrens/asu/reports/compre/star_plot.GIF

sunburst

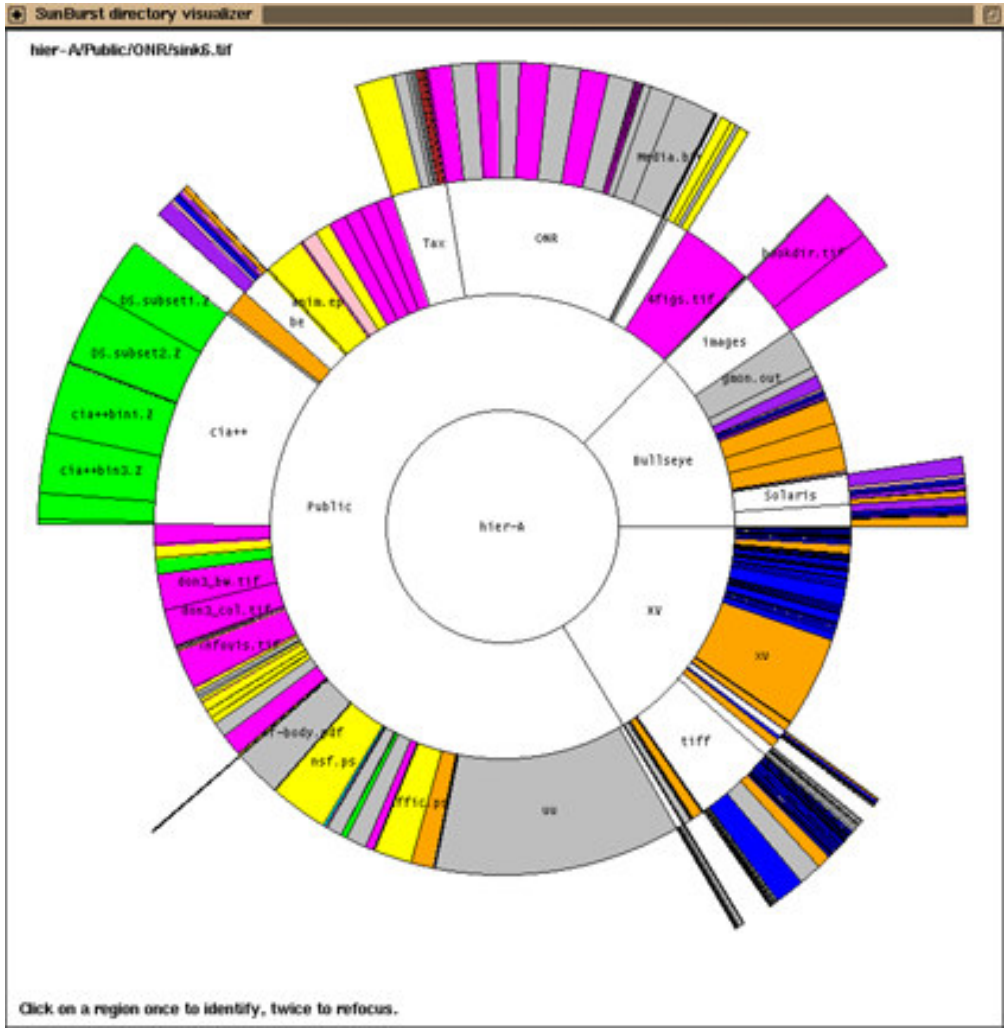


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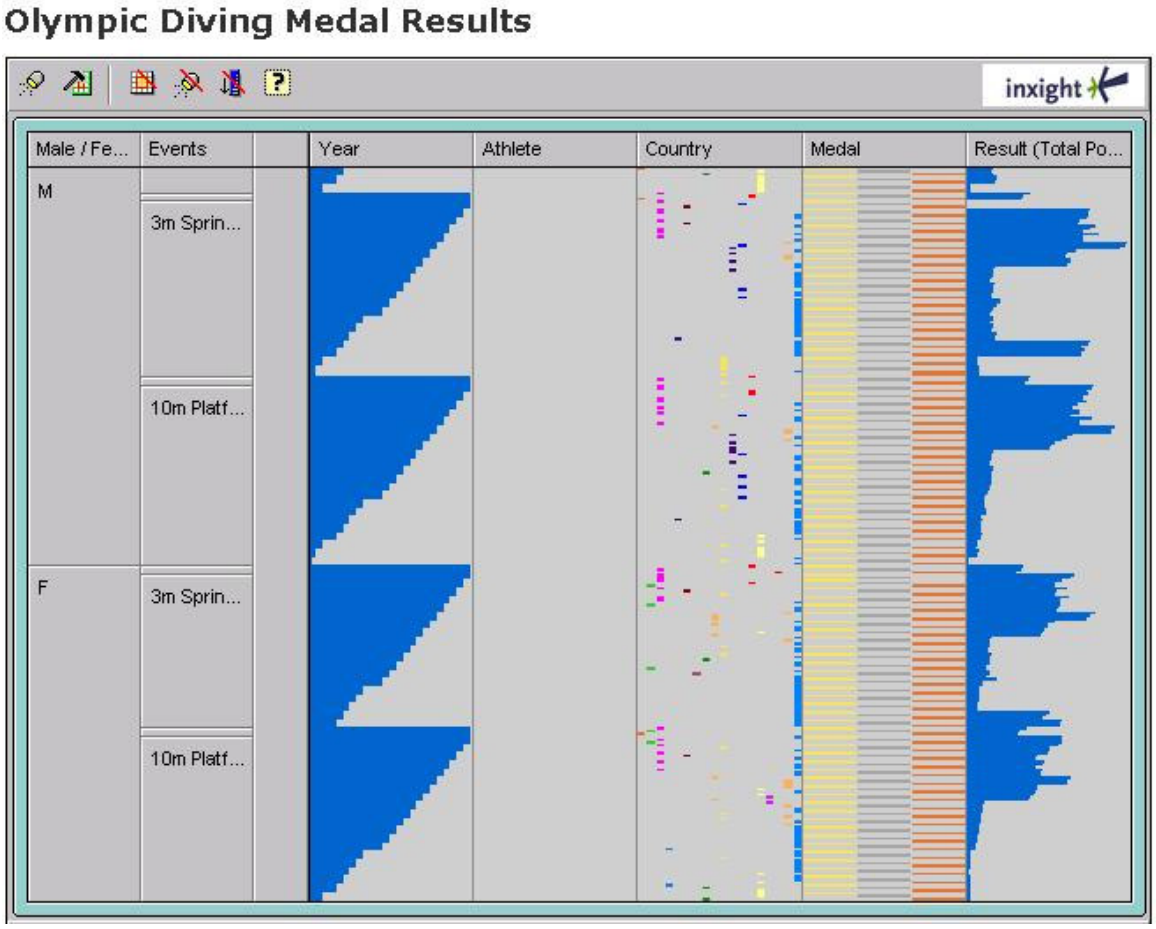
table lens



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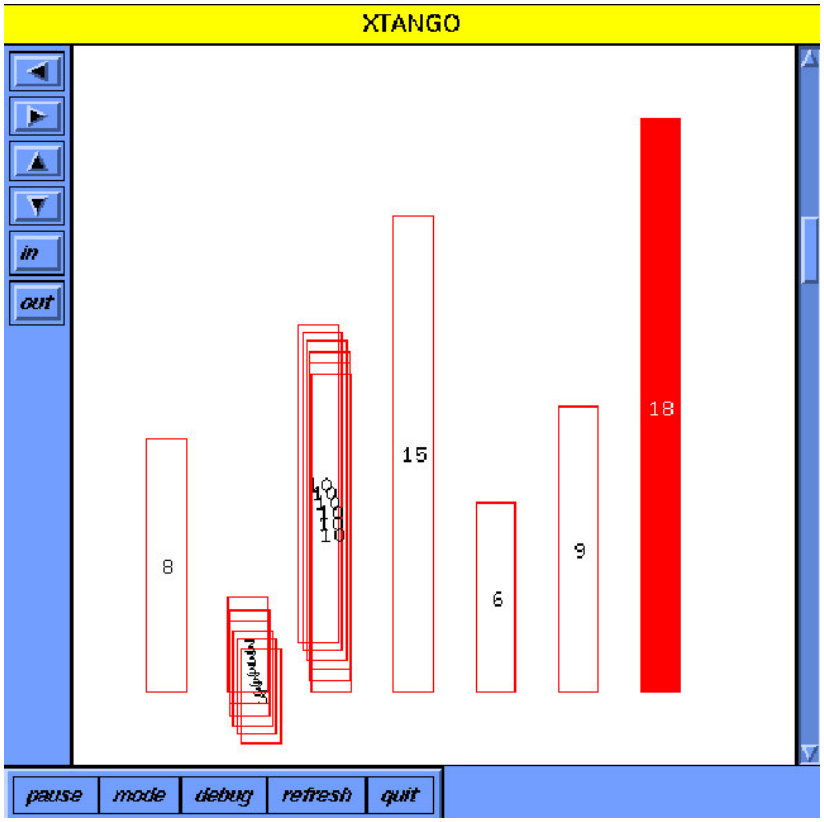

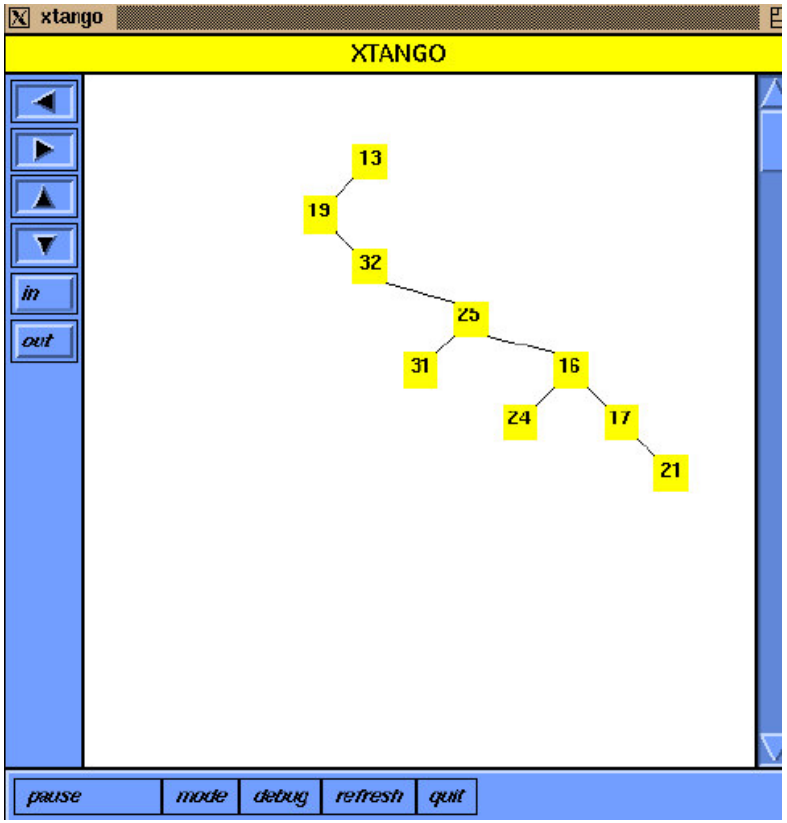

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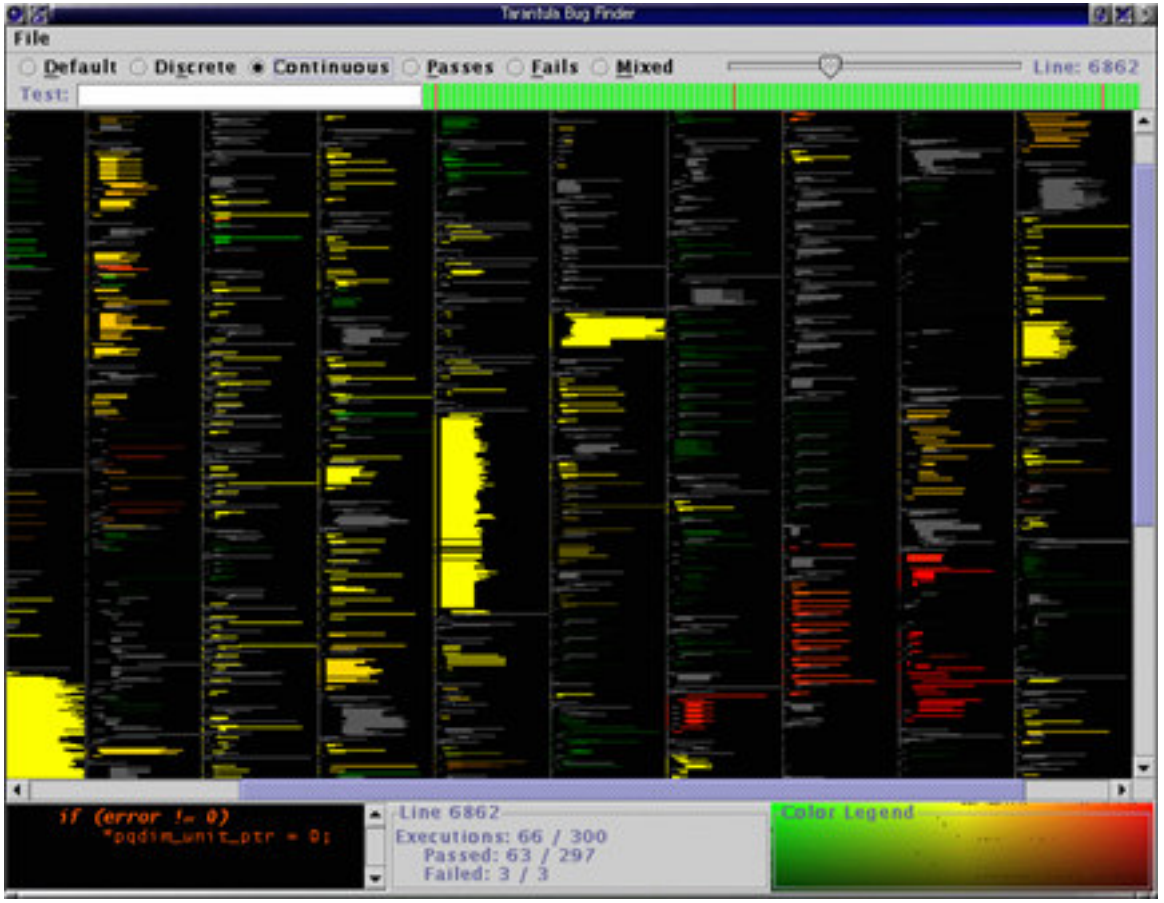
tarantula



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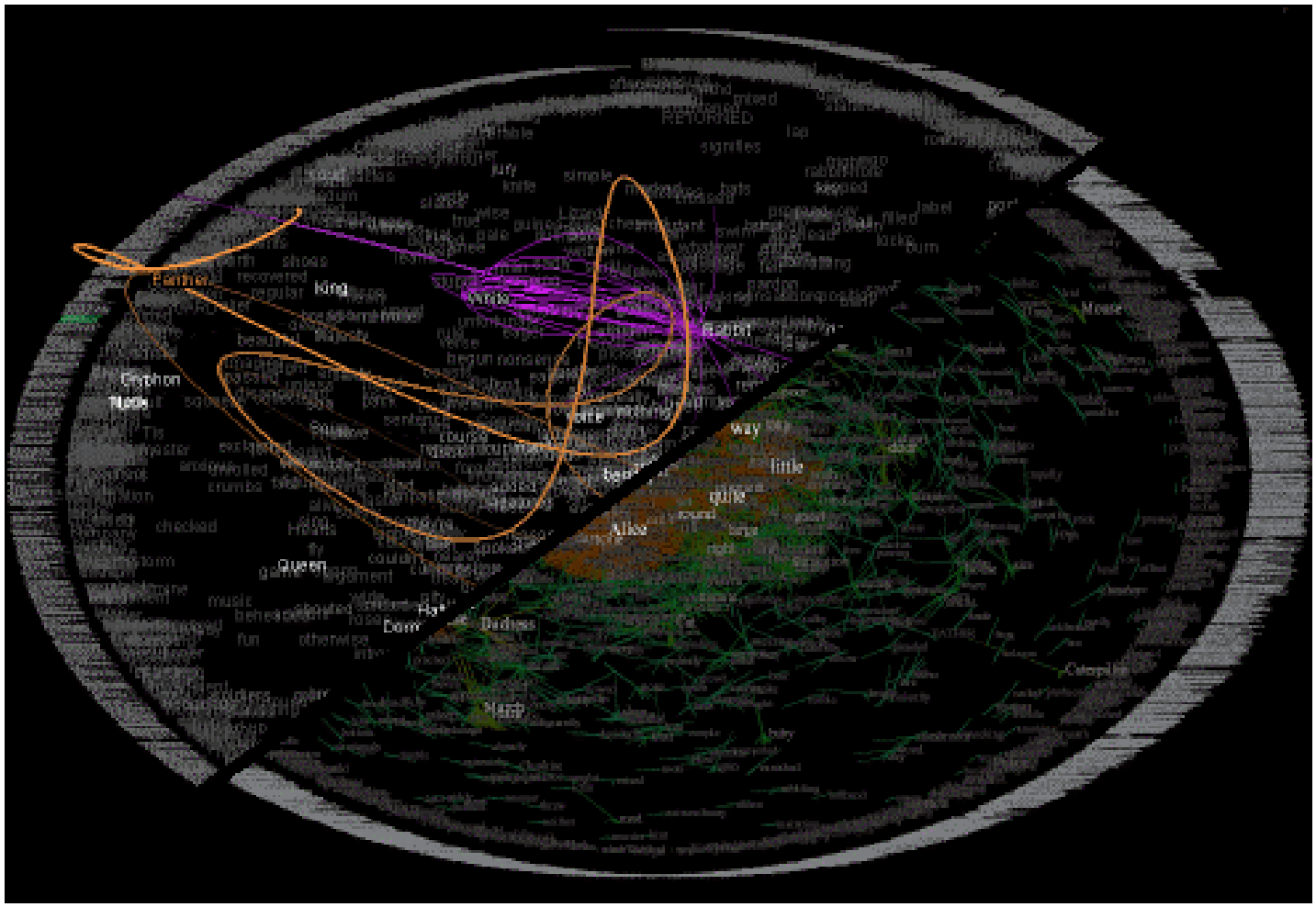

http://www.textarc.org/

themescape



http://transcriptions.english.ucsb.edu/archive/colloquia/Kirshenbaum/themescape.jpg

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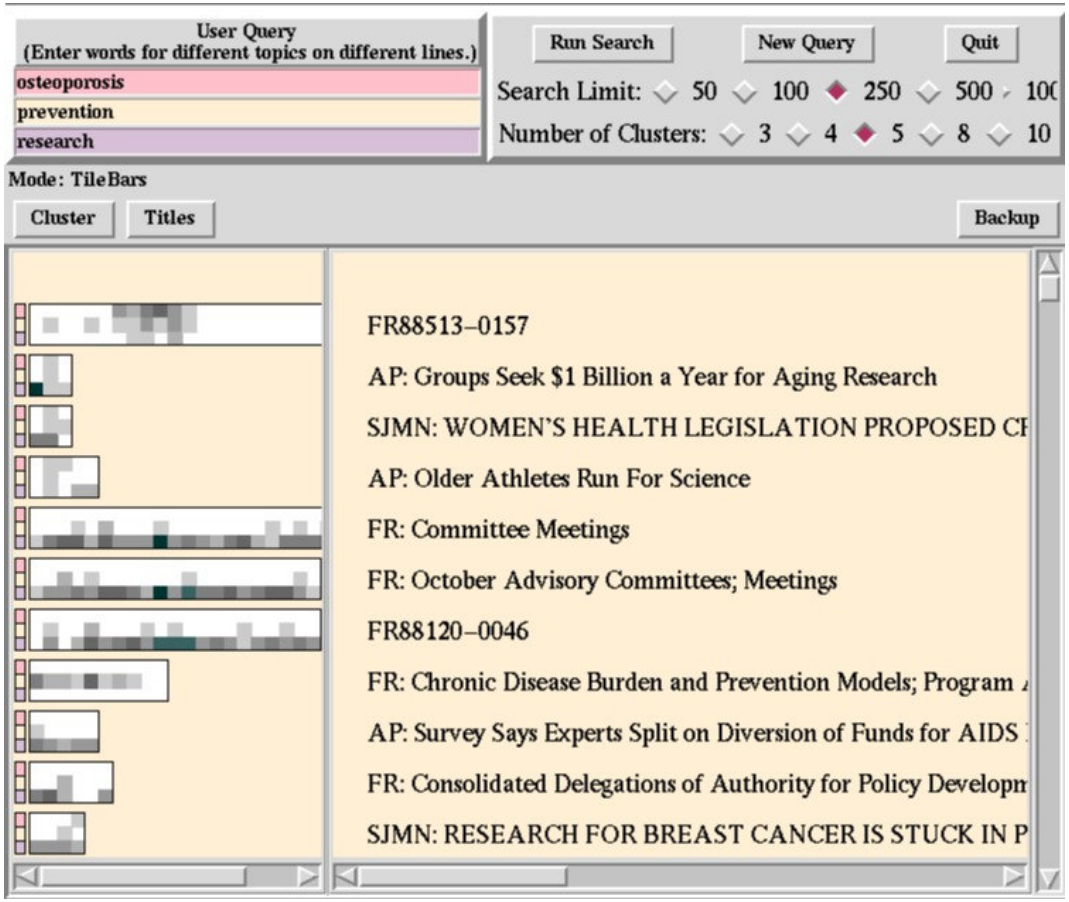
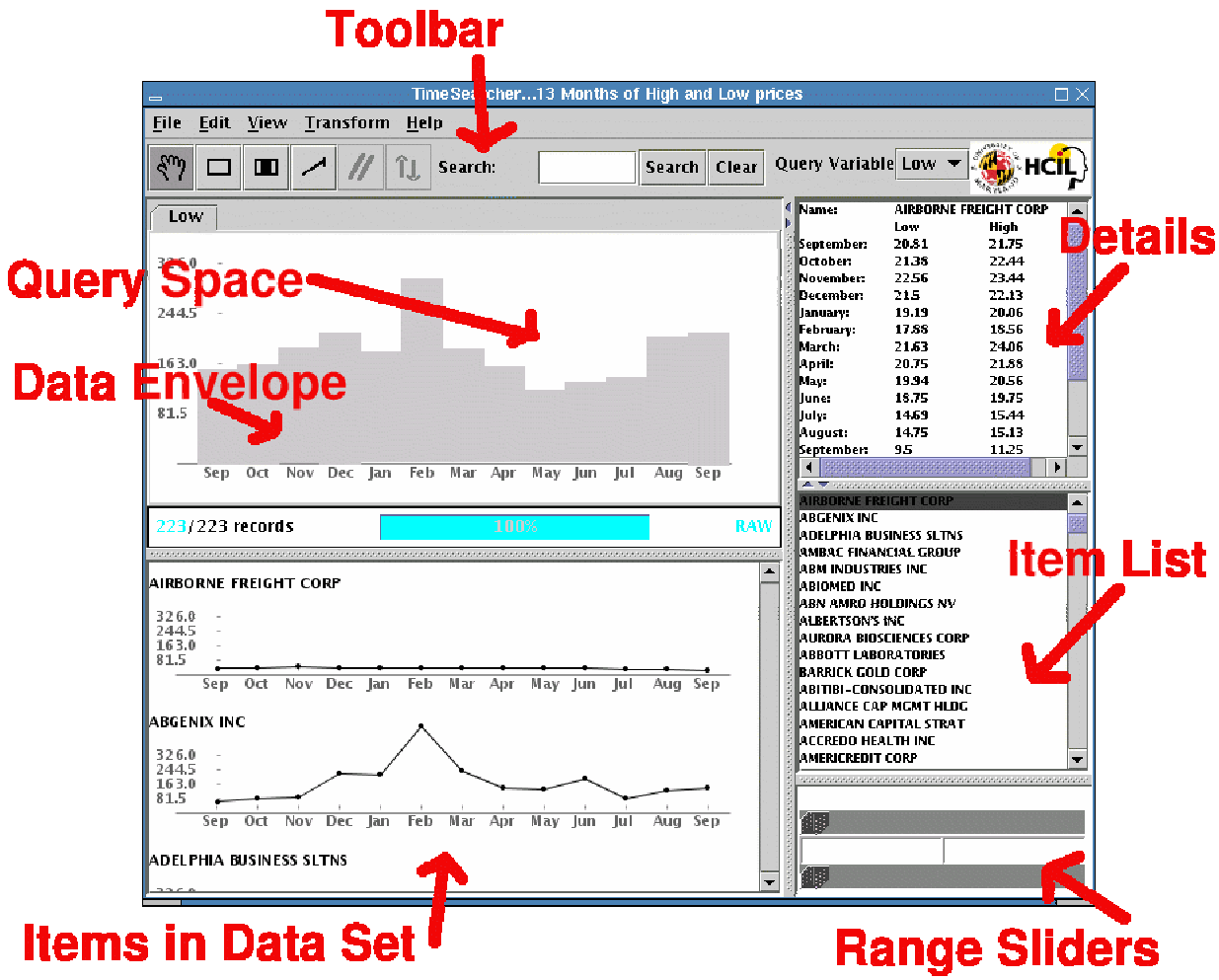


Hearst, M., TileBars: Visualization of Term Distribution Information in Full Text Information Access, *ACM SIGCHI Conference on Human Factors in Computing Systems,* 1995, pp. 59--66.

http://class.ee.iastate.edu/berleant/home/Courses/text/TextVisualization/survey.htm

timesearcher



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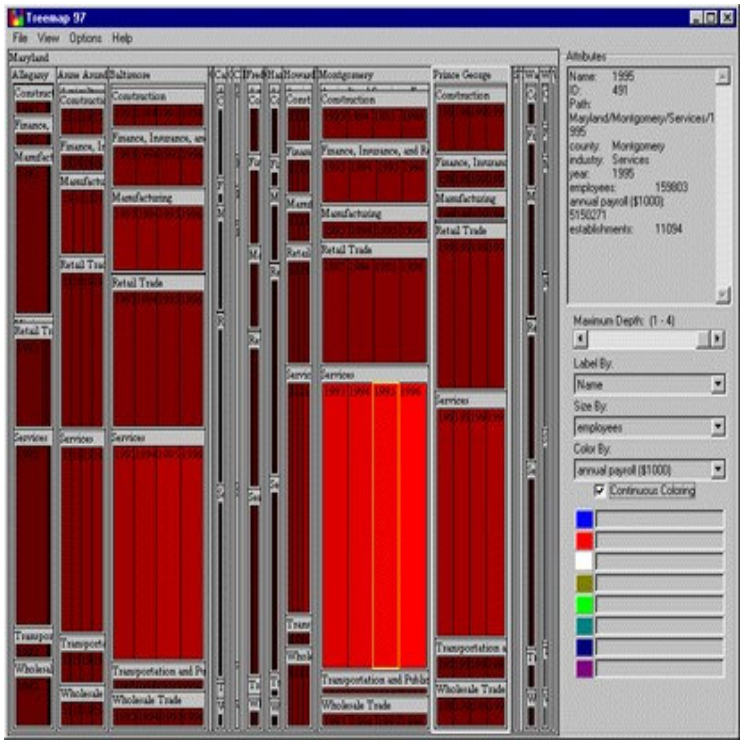

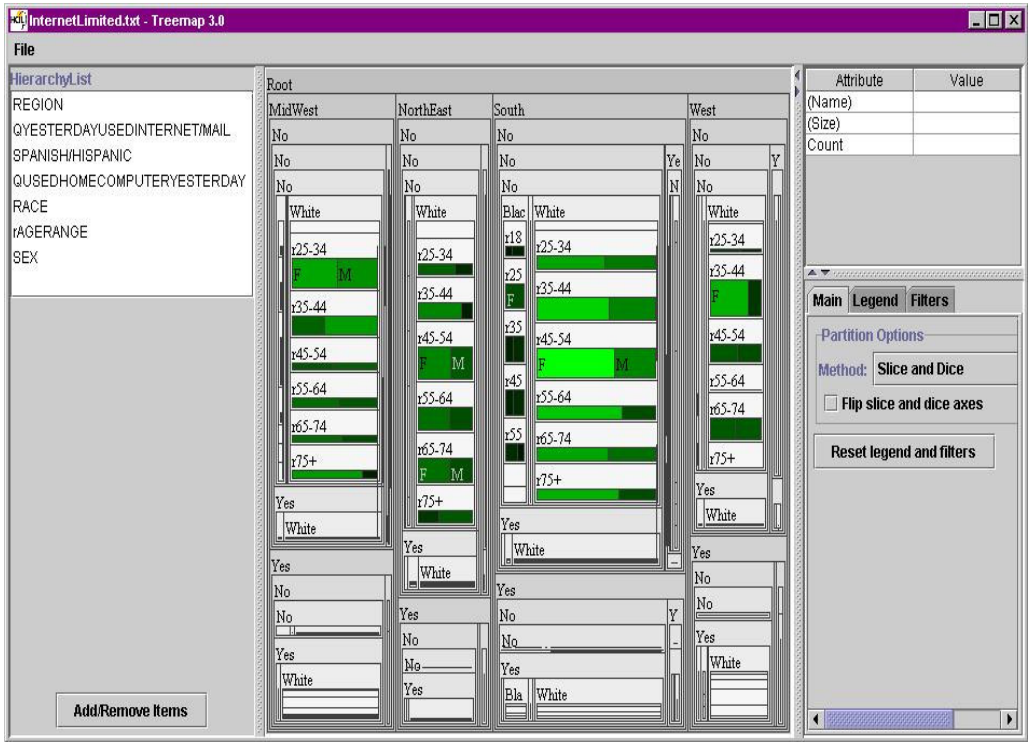

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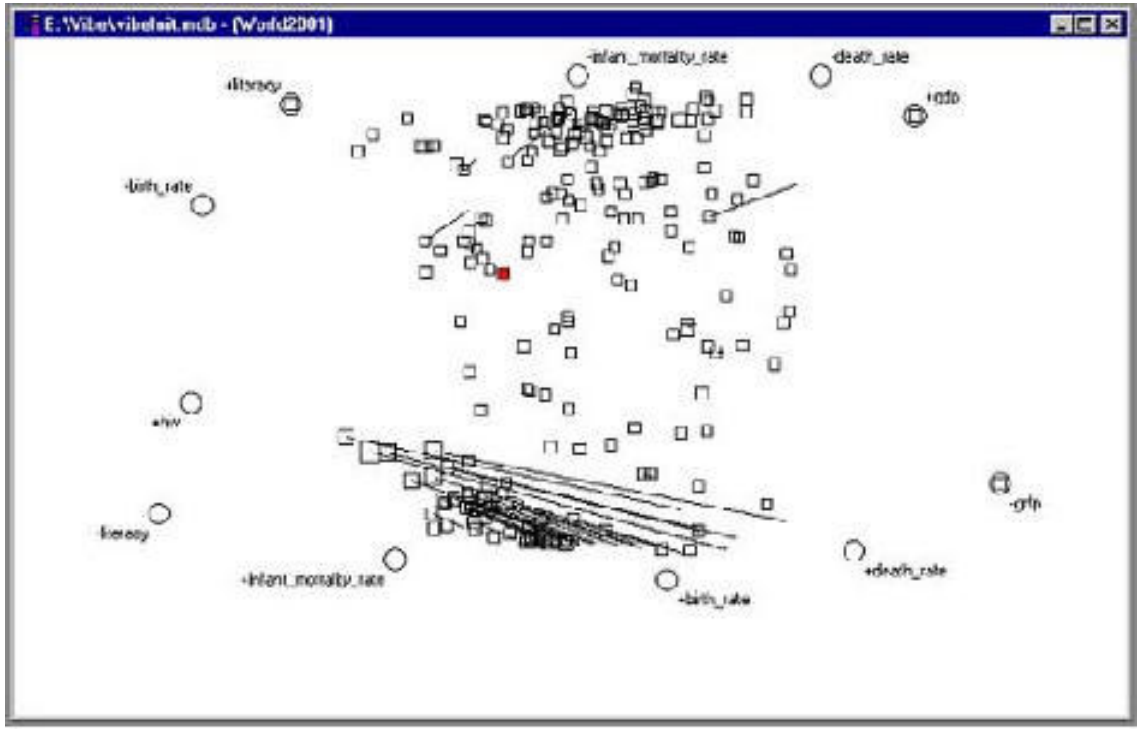
vibe



http://visc.sis.pitt.edu/projects/vibe.asp

webbook & web forager



http://www.cs.brown.edu/memex/ACMCSHT/51/51.html

wing

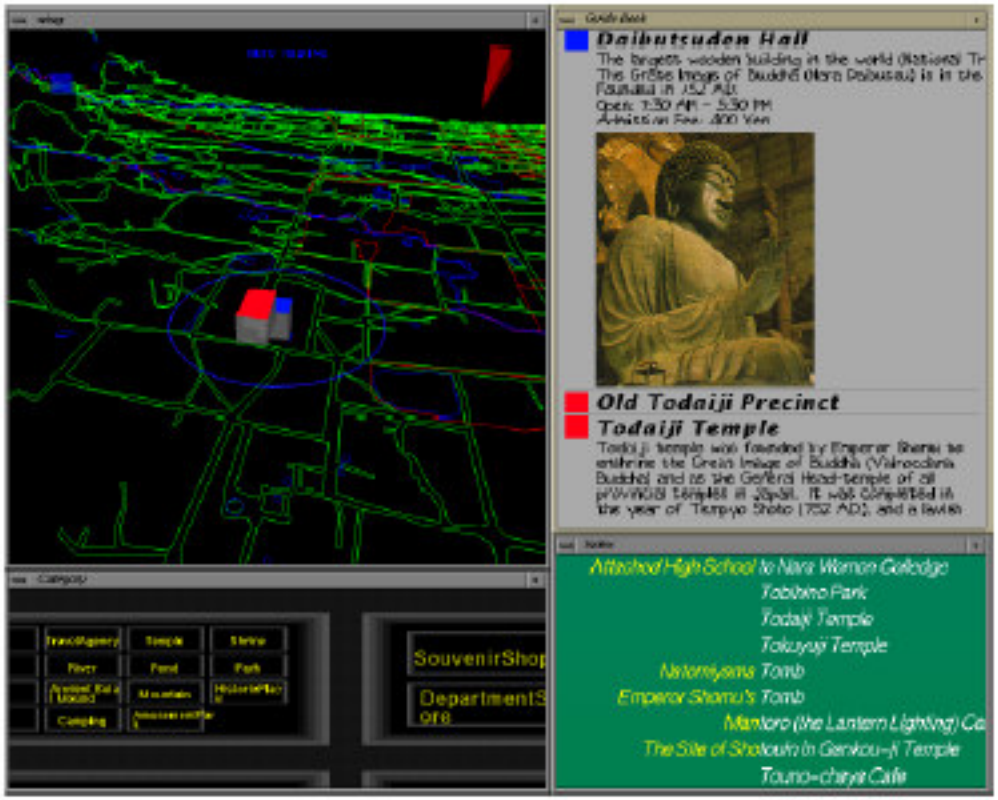
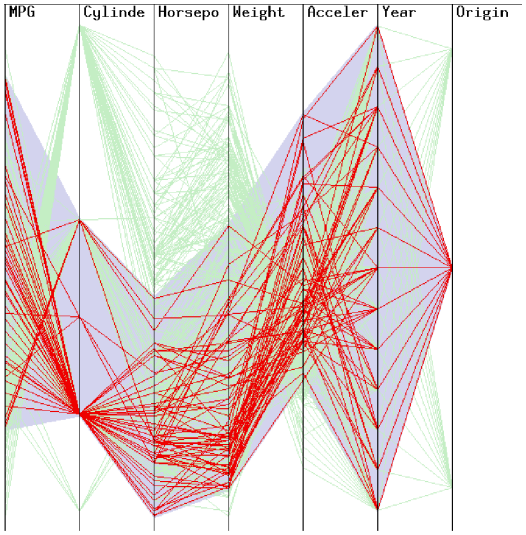
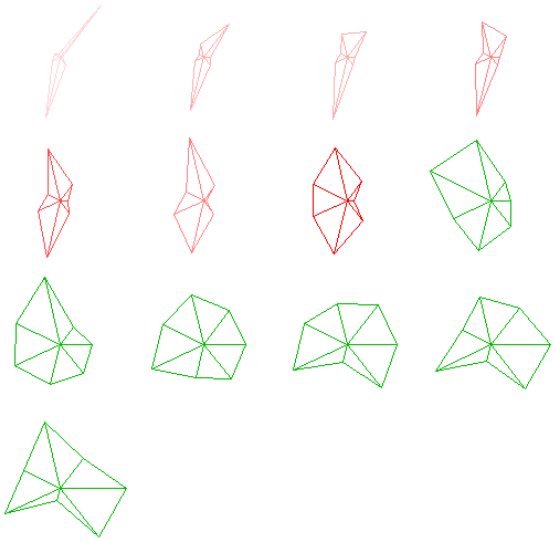


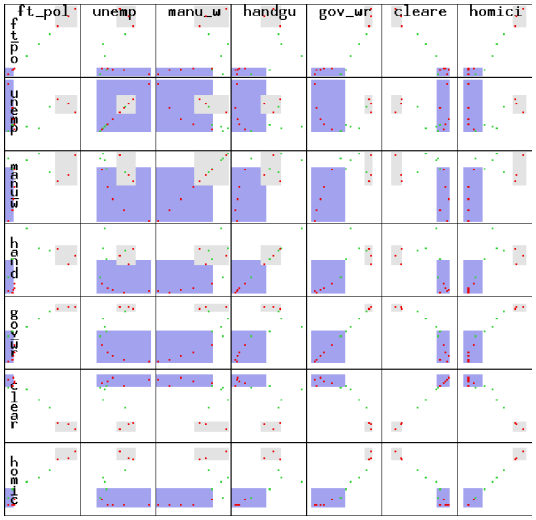
Figure 1: The WING system.

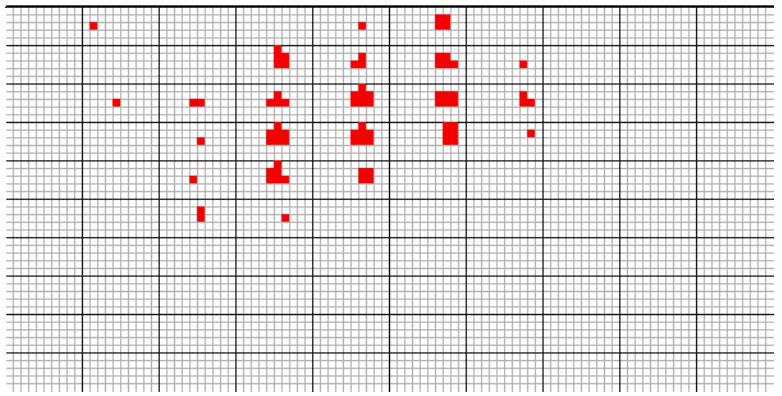
http://pitecan.com/papers/UIST95/UIST95.pdf

xmdv









http://davis.wpi.edu/~xmdv/index.html