viewpoints (vp)
viewpoints

• “hyperwall for the masses”
• workstation / laptop application
• multiple views
  • high dimensional data
  • linked scatterplots + brushing
  • dynamic histograms, etc. . .
• normalizations, outlier detection/removal . . .
• high performance on large data
applications

- quantum chemistry
- CFD
- virology
- machine learning
- finance
- astrophysics
demos

- Hipparcos
- GLAST
Hipparcos demo

- Tycho catalog
- 1,033,681 stars
- 21 quantities per star
Gamma-ray Large Area Space Telescope

Exploded View:
One of Forty-nine Towers

10 Layers of 0.5 rad Length Converter (pb)
12 Layers of XY Silicon Strips
Gamma Rays
Positrons/Electrons
GLAST demo

- 150,093 events
- 193 quantities per event
demo
dependencies

- openGL
- gcc, libc, stl
- gnu scientific library (gsl)
- blitz++
- fast light toolkit (fltk)
- gmm++ (blas, lapack, sparsepak...)

availability

- beta available now
- linux, Apple OSX
- open source release 1.0 (2006)
- MS windows
- sourceforge, NASA GPL
enhancements

- refactor
- improve
  - ui (simpler, better)
  - machine learning
    - dimensionality reduction (ICA,...)
    - clustering
    - entropy, mutual information....
- more views (spectra, n-dimensions, tours)
- performance (threads, VBOs, shaders)