STILTS Graphics
Mark Taylor, Bristol University, UK
http://www.starlink.ac.uk/stilts/

STILTS is . . .
STILTS is a powerful and mature package for all kinds of table manipulation, including crossmatching, row selections, data and metadata processing, format conversion and other things. Features include:
- Multi-format (FITS, VOTable, CSV, . . . )
- Efficient
- Scalable
- Fully documented
- Easy to install (Java)
- Open source
It is the command-line counterpart to the GUI table analysis application TOPCAT.

New Graphics Capabilities
As of Version 2 (October 2008), STILTS provides plotting commands as well. Currently available are:
- plot2d: 2-dimensional scatter plot
- plot3d: 3-dimensional scatter plot
- plothist: histogram
Plotting features shared with TOPCAT:
- Highly configurable styles
- Overplotting of multiple data sets
- Symmetric or asymmetric N-dimensional error bars/ellipses/cuboids/. . .
- Higher-dimensional visualisation using colours
- Variable transparency of markers
- Text labelling of points
- Choice of output formats (EPS, PNG, GIF, JPEG or to screen)
Plotting features only in STILTS:
- Unlimited data set size
- Better configurability of fonts, colours, axes, . . .

Coming Soon . . .
In future releases the graphics capabilities will be extended:
- Spherical plots
- Stacked line plots
- Density plots
- More configurability options
- Improved programmable callability from Java
- TOPCAT plot windows to output equivalent STILTS command text
- . . . your request here?

Comparison With Other Packages

TOPCAT
STILTS can generate exactly the same plots as TOPCAT, but using an imperative rather than interactive interface. The two packages can be used in a complementary fashion working from the same or similar data, using TOPCAT to experiment rapidly with the kind of plot which is required, and STILTS for fine tuning, reproducible output or programmatic invocation.

Other Plotting Packages
STILTS graphics does a similar job to a number of other packages which provide programmatic plotting such as Gnuplot, IDL, PONGO, . . . If those packages do what you want, fine! Reasons to use STILTS instead include:
- Direct use of STILTS-friendly formats (VOTable, FITS, SQL)
- Very large datasets
- Complementary use with TOPCAT
- Ease of installation, deployment and licensing

Thomas Boch (CDS) has also installed an experimental Simbad plotting service at http://cdsweb.u-strasbg.fr/~boch/simbad-plotter/
I can advise if you would like to do something similar on your data servers.

More Information
For downloads, documentation, examples etc. visit the website of STILTS or its companion packages TOPCAT (GUI table processing) or STILTS (table I/O library underlying both). Alternatively, talk to me in person or by email:
m.b.taylor@bristol.ac.uk

STILTS: STIL Tool Set
http://www.starlink.ac.uk/stilts/

TOPCAT: Tool for OPerations on Catalogues And Tables
http://www.starlink.ac.uk/topcat/

STIL: Starlink Tables Infrastructure Library
http://www.starlink.ac.uk/stil/