A Bibliography on Statistical Graphing Practices
B. Dudek, October 6, 2010 version

Also see the section on statistical graphics in the stat toolkit bibliography.

Texts on Statistical Graphics and Graphing Data


A few older classics:

Articles and Chapters - General Items:


Cleveland, W., Diaconis, P., & McGill, R. (1982). Variables on scatterplots look more highly correlated when the scales are increased. Sciences, 210(4550), 1138-1141.


Articles and Chapters - Items on Cognitive Processing and Graph Comprehension:


dimensional data. *Behaviour & Information Technology*, 10(6), 459-474.


**Commercial Graphing Software (obviously a limited list)**

Origin Lab. Home for Origin 8; commercial software targeted to science and engineering.  

SigmaPlot. Scientific; technical; commercial software.  
My long time favorite for publication quality graphs.  
[http://www.sigmaplot.com](http://www.sigmaplot.com)

**Blogs and Miscellaneous Sites**

Edward Tufte's web site and the home of Graphics Press:  


Web home of Theus and Urbanek text cited above.  
[http://www.interactivegraphics.org/Home.html](http://www.interactivegraphics.org/Home.html)  
Contains R code for their graphics.

Pie Charts – Don’t use them  

Manet  
[http://stats.math.uni-augsburg.de/MANET/](http://stats.math.uni-augsburg.de/MANET/)  
Interactive graphics for data sets with missing data

DataScope web site. Lewi and Woulters' statistical graphics site. Includes a link to Lewi's Etext "Speaking of Graphics"  
[http://www.datascope.be/](http://www.datascope.be/)

William Briggs' Blog on bad graphing:  

[http://statisticalgraphics.blogspot.com/](http://statisticalgraphics.blogspot.com/)  
An interesting blog
ASA Sections on: Statistical Computing and Statistical Graphics
http://stat-computing.org/

Bill Cleveland,’s web page at Bell labs. Includes a link the the Trellis web pages:
http://netlib.bell-labs.com/cm/ms/departments/sia/wsc/index.html

Healey’s page on Perception in Visualization
http://www.csc.ncsu.edu/faculty/healey/PP/index.html

UCLA Academic Technology Services page on
SAS Graphics:
http://www.ats.ucla.edu/stat/sas/topics/graphics.htm

UCLA Academic Technology Services page on
STATA Graphics:
http://www.ats.ucla.edu/stat/stata/topics/graphics.htm

UCLA Academic Technology Services page on
R Graphics:
http://www.ats.ucla.edu/stat/r/gbe/default.htm

Texts on The R Programming language (recommended starter texts in bold)

statistics using R. Cambridge, UK ; New York: Cambridge University
Press.
Bivand, R. S., Pebesma, E. J., & Gómez-Rubio, V. (2008). Applied spatial data analysis
with R. New York ; London: Springer.
University Press.
Cambridge ; New York: Cambridge University Press.
England: J. Wiley.
Cryer, J. D., & Chan, K.-s. (2008). Time series analysis : with applications in R (2nd
ed.). New York: Springer.
Springer.
Raton: Chapman & Hall/CRC.
effects and nonparametric regression models. Boca Raton: Chapman &
Hall/CRC.
Fox, J. (2008). Applied regression analysis and generalized linear models (2nd
Good, P. I. (2005). Introduction to statistics through resampling methods and R/S-
examples. New York, N. Y.: Springer.
Chapman & Hall/CRC.
Kowarik, A. (2008). Fitting a Background Map to Spatial Data: Application in R: VDM
Verlag.


Web Sites on Graphical Display, Statistical Graphing Software, and R

R software – related links

The R Project for Statistical Computing
The home page for R.
http://www.r-project.org/

Quick-R. A fabulous web page by Robert Kabakoff that is designed to help SPSS/SAS/STAT users migrate to R. Actually the best web site I have found on R.
http://www.statmethods.net/

R Graphical Manual. A collection of R graphs from various R packages
http://bm2.genes.nig.ac.jp/RGM2/index.php

An R and S-PLUS Companion to Applied Regression
John Fox's text to accompany his Regression text
http://socserv.socsci.mcmaster.ca/jfox/Books/Companion/index.html

The R Graph Gallery page. Extensive. Great place to explore the capabilities in R.
http://addictedtor.free.fr/graphiques/

GGobi
http://www.ggobi.org/

GGobi is the primary open source visualization program for exploring high-dimensional data. The rggobi package in R permits transfer of data/objects between the two application.

GTK+
http://www.gtk.org/
The premier open-source graphical user interface toolkit.

Rggobi
http://www.ggobi.org/rggobi/
Let's R talk to ggobi.

RGtk2
http://www.ggobi.org/rgtk2/
Let's R talk to GTK+.

Classify
http://had.co.nz/classify/
An R package that enables exploration of classification boundaries in high dimensions.

GGPLOT2
http://had.co.nz/ggplot2/
An amazing R package that contains a large set of functions to become a replacement framework for plotting functions in the base package of R and the lattice capabilities.

Mondrian
http://stats.math.uni-augsburg.de/Mondrian/
"Mondrian is a general purpose statistical data-visualization system. It features outstanding visualization techniques for data of almost any kind, and has its particular strength compared to other tools when working with Categorical Data, Geographical Data and LARGE Data." (description from web site)
It uses Rserve to link to R and use functions in its base and add-on packages.
It also has capabilities in mapping/spatial analysis.

exploRase
http://www.metnetdb.org/MetNetexploRase.htm
"exploRase is a MetNet tool written in R for the exploratory multivariate analysis of Systems Biology data. It provides a graphical user interface (GUI) on top of the analysis functionality provided by R and the Bioconductor project." (description taken from the exploRase page)
Although a bioinformatics focus, it is a nice model of what can be achieved and is a nice demo of integration of multiple open sources applications.

Web home of Theus and Urbanek text cited above.
http://www.interactivographics.org/Home.html
Contains R code for their graphics.

Using Color in R