

R

From WhartonComputingWiki

Bread crumbs: R

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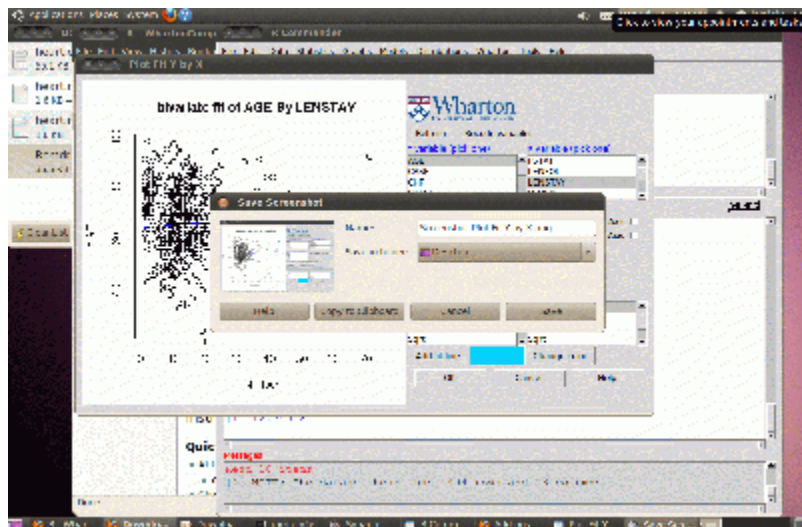
Installing RCmdrPlugin.Wharton

An R package was created for use in Wharton introductory classes. RcmdrPlugin.Wharton is an R package and Rcmdr Plugin, so it requires installation of Rcmdr. These are steps to install:

Linux (Ubuntu)

- Install the following packages via Synaptic Package Manager
 - R
 - r-cran-rcmdr
 - r-cran-tkrplot
- Open a terminal
- type `sudo R` to open R as super user
- Run the following commands in R (if it asks to select a CRAN mirror, just select one closest to you)
 - `install.packages("ref", dependencies=TRUE)`
- Close out of R "`q()`"
- Back in terminal
 - `sudo R CMD INSTALL <RcmdrPlugin.Wharton.Source.Directory.Path>`
 - `<RcmdrPlugin.Wharton.Source.Directory.Path>` is the path to the location of the

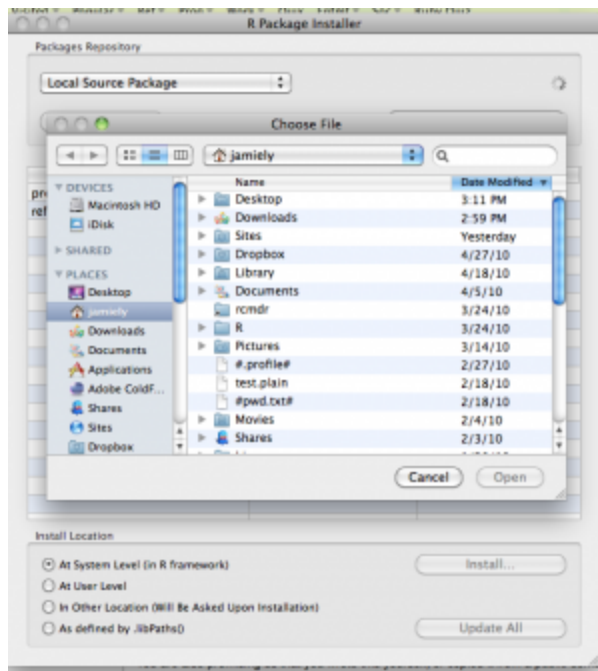
source for RcmdrPlugin.Warton our local machine.



OSX

Download most recent OSX package from here. <http://cran.r-project.org/bin/macosx/>

- Install R.
- Install tcltk package here: <http://cran.r-project.org/bin/macosx/tools/>
- Open R64 or R.
- Install R packages/plugins from the Packages & Data menu (use the default CRAN):
 - Rcmdr (this one takes awhile, 15+ minutes). Make sure to check **INSTALL DEPENDENCIES**
 - **Do not be alarmed that it is blocking and seems frozen. To be safe, give it 20 minutes to install.**
 - ref



- tkrplot
- Install RcmdrPlugin.Wharton via Packages & Data menu > **Local Package Directory**. Point the file selector at the RcmdrPlugin.Wharton source directory.
- Run command `library(RcmdrPlugin.Wharton)`
 - you may get a warning that package Hmisc is not installed. You may install or not. It will not affect operation of the RcmdrPlugin.Wharton code.

Windows

All instructions below are CASE SENSITIVE. This is because R is cross-platform (and non-windows platforms are case-sensitive).

- download and install most recent R binary for windows <http://cran.r-project.org/bin/windows/base/>
- Open R
- Run the following commands in R
 - `install.packages("Rcmdr", dependencies=TRUE)` - **this may take a while, up to 20 minutes**
 - `install.packages("ref", dependencies=TRUE)`
 - `install.packages("tkrplot", dependencies=TRUE)`
- Close R
- Run the following command via command-line (CLI) on the RcmdrPlugin.Wharton source directory
 - `"%R_HOME%\bin\R.exe" CMD INSTALL <RcmdrPlugin.Wharton.Source.Directory.Path>`
 - `<RcmdrPlugin.Wharton.Source.Directory.Path>` is the path to the location of the source for RcmdrPlugin.Wharton on our local machine.
 - `R_HOME` is your R installation directory. It could be `"C:\Program Files (x86)\R"`

\\R-2.11.0"

- Open R
- Run R command
 - library(RcmdrPlugin.Warton)
 - you may get a warning that package Hmisc is not installed. You may install or not. It will not affect operation of the RcmdrPlugin.Warton code, but it does take at least 5-minutes to install.

Example Datasets

The following is a dataset that has data related to heart-attacks. It is available in the following formats

- Fixed-width delimited (TXT) - <http://scorpio-dev.wharton.upenn.edu/users/jamiely/R/datasets/heart.txt>
- CSV - <http://scorpio-dev.wharton.upenn.edu/users/jamiely/R/datasets/heart.csv>
- R - <http://scorpio-dev.wharton.upenn.edu/users/jamiely/R/datasets/heart.rda>
- JMP - <http://scorpio-dev.wharton.upenn.edu/users/jamiely/R/datasets/heart.jmp>

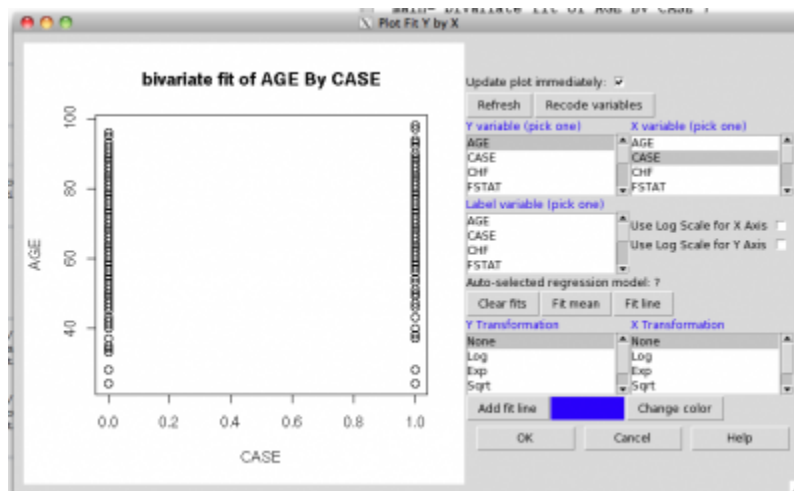
For a zip containing all of these:

- ZIP - <http://scorpio-dev.wharton.upenn.edu/users/jamiely/R/datasets/heart.zip>

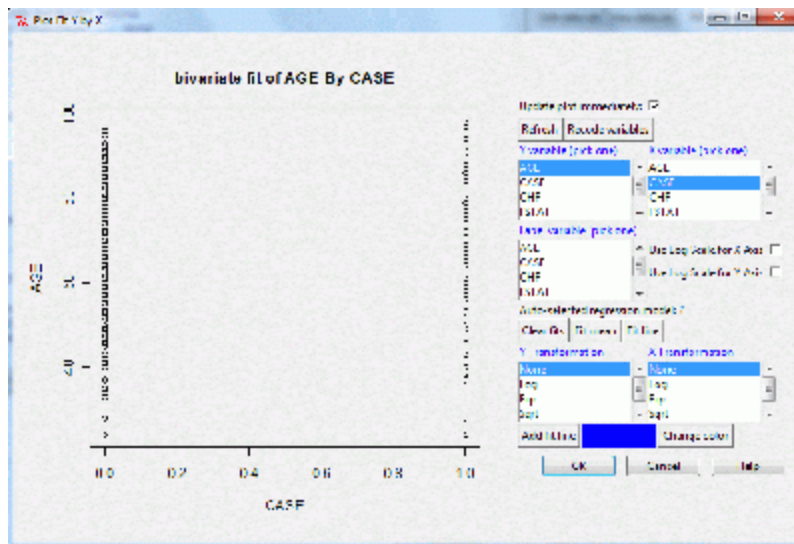
Instructions for Use

Quick

- At the RCmdr menu, Choose Data > Load Data Set to load a saved dataset
 - Or, choose Wharton > Import from text file... to import a dataset
- Choose Wharton > Fit Y by X
- Select variables to fit by...
 - OSX:



- Windows:



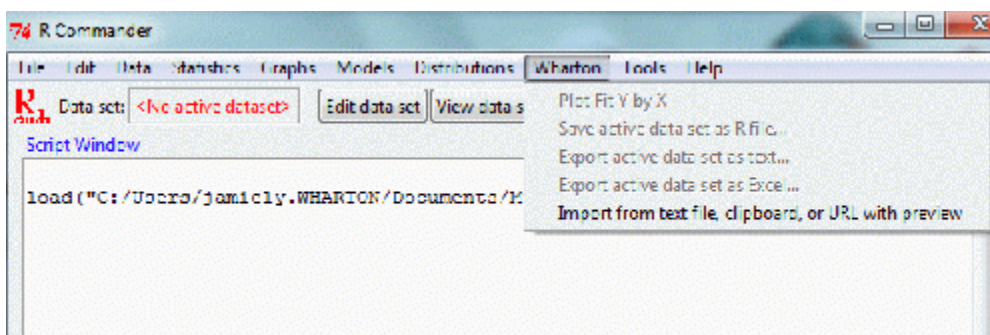
Main Uses

- Interactive file importing from text/csv
- Emulation of JMP Fit Y by X Functionality, this includes:
 - Plotting histograms
 - Fitting linear regression lines
 - Fitting logistic regression lines
 - Contingency tables
 - Boxplots

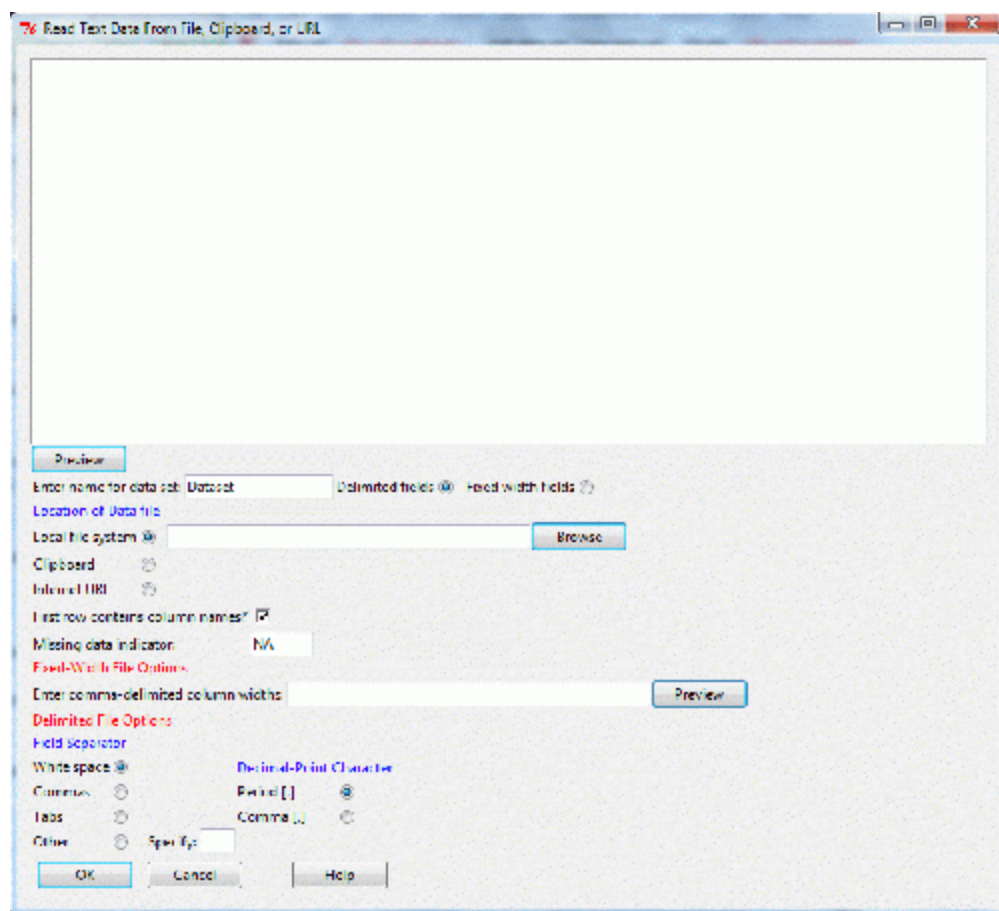
Interactive file read

Reads a file and displays head parsed according to selected options.

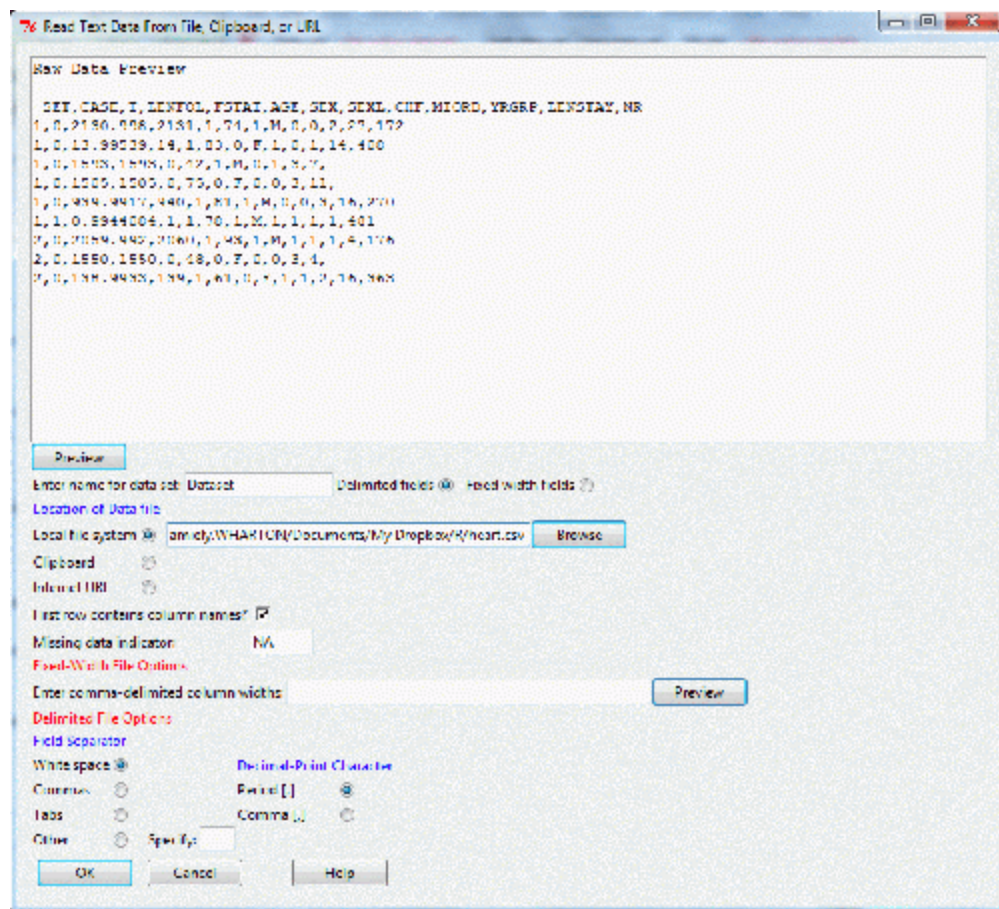
- Select "Import from text file" from the file menu



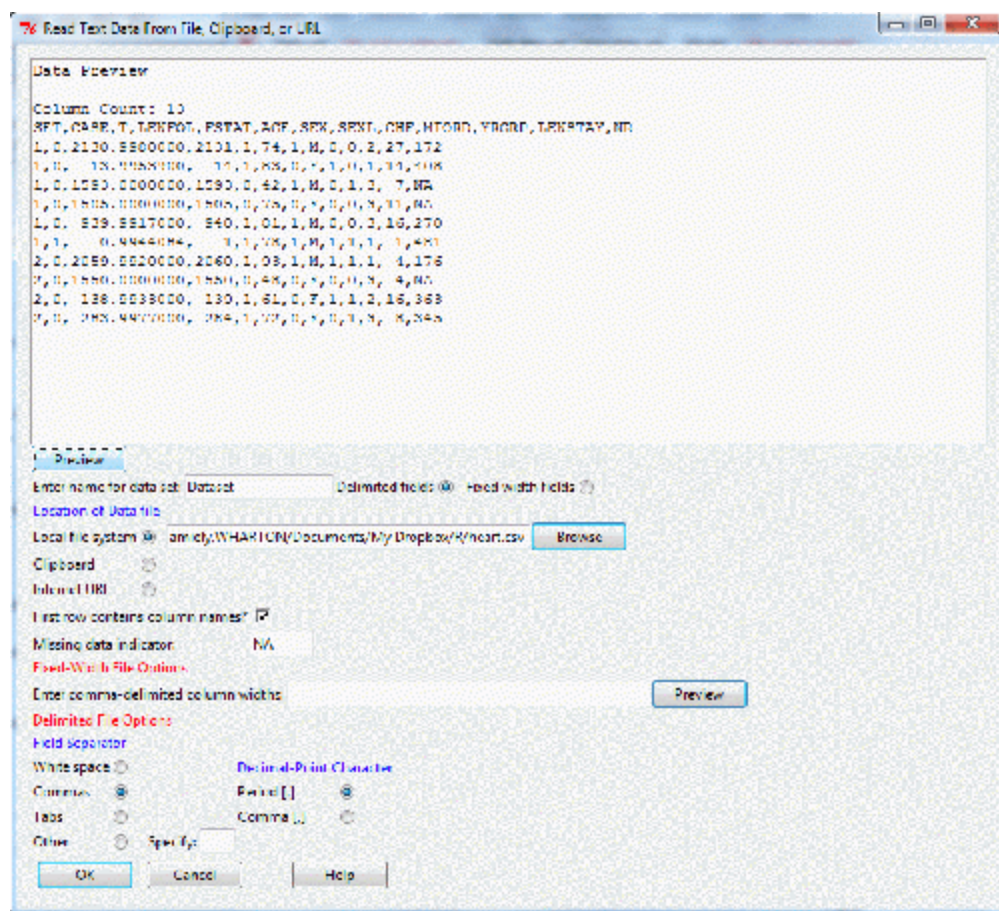
- Select a file to import



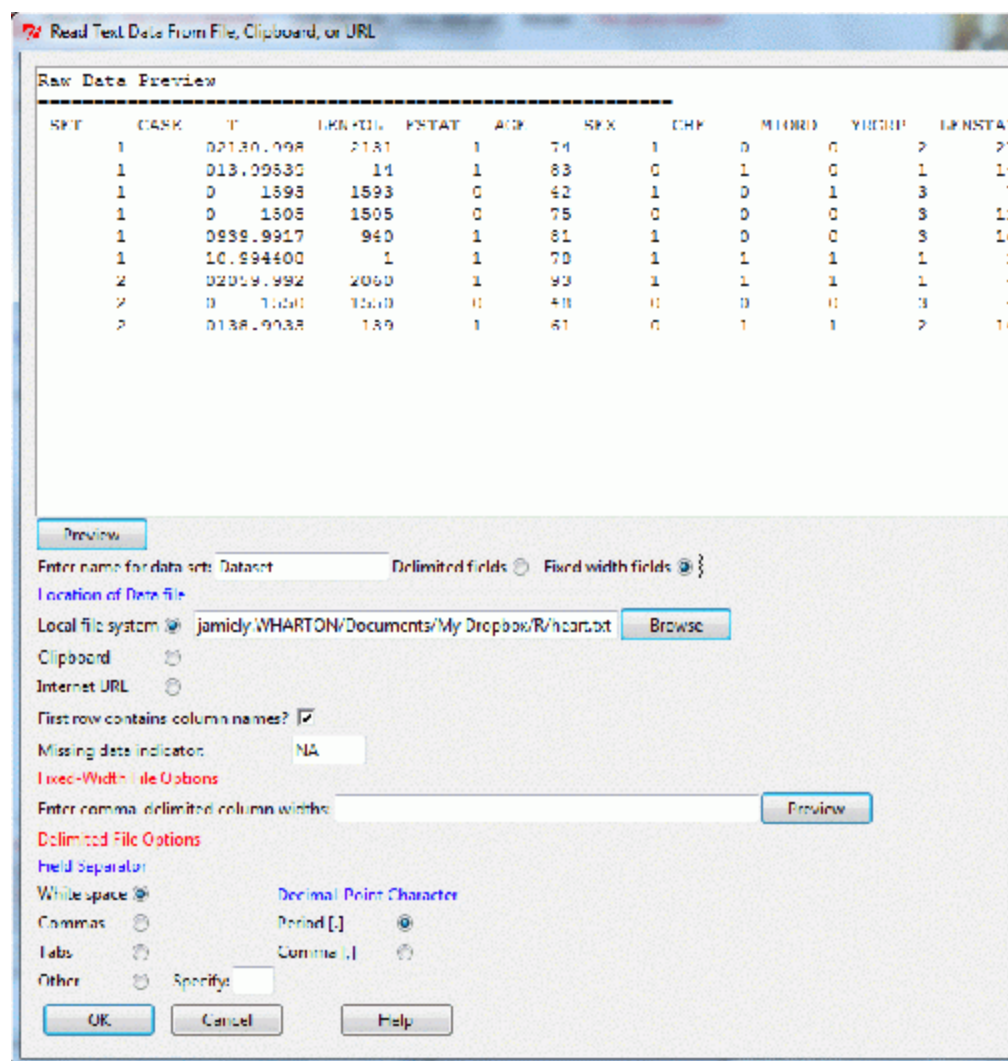
- We've selected a CSV. make sure "Delimited fields" is selected.



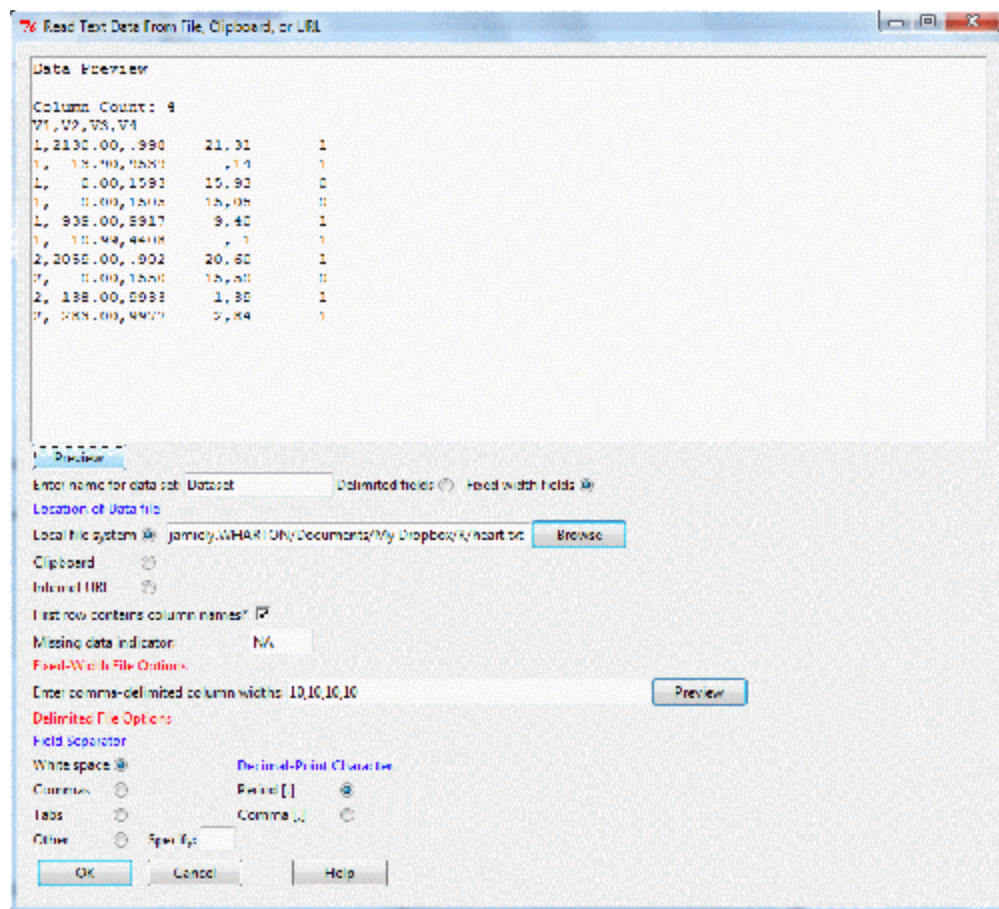
- Select commas as the field separator. Click preview. Notice that there are 13 columns in the dataset.



- Select a fixed-width field file. Make sure "Fixed width field" is selected.



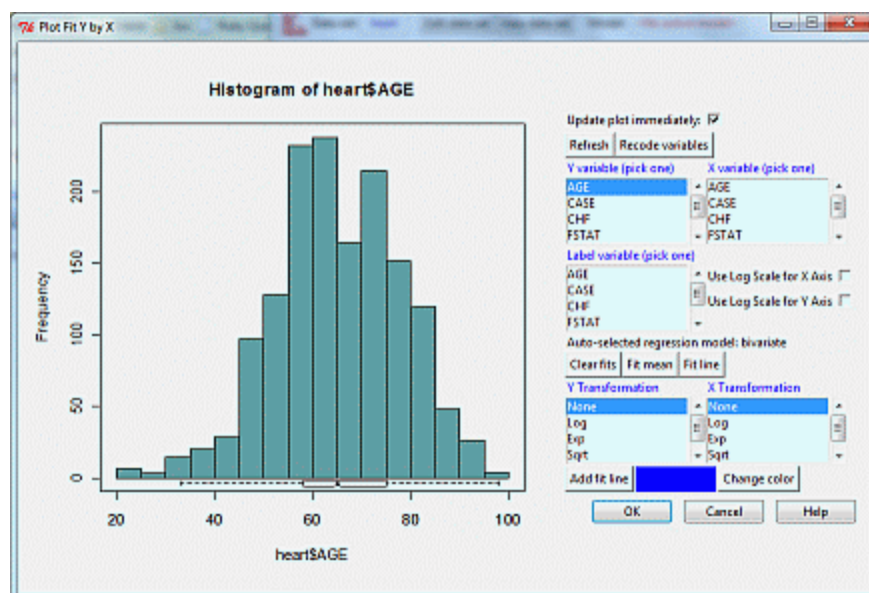
- Enter a comma-delimited list of field-widths. Click preview. Notice that 4 columns have been loaded.



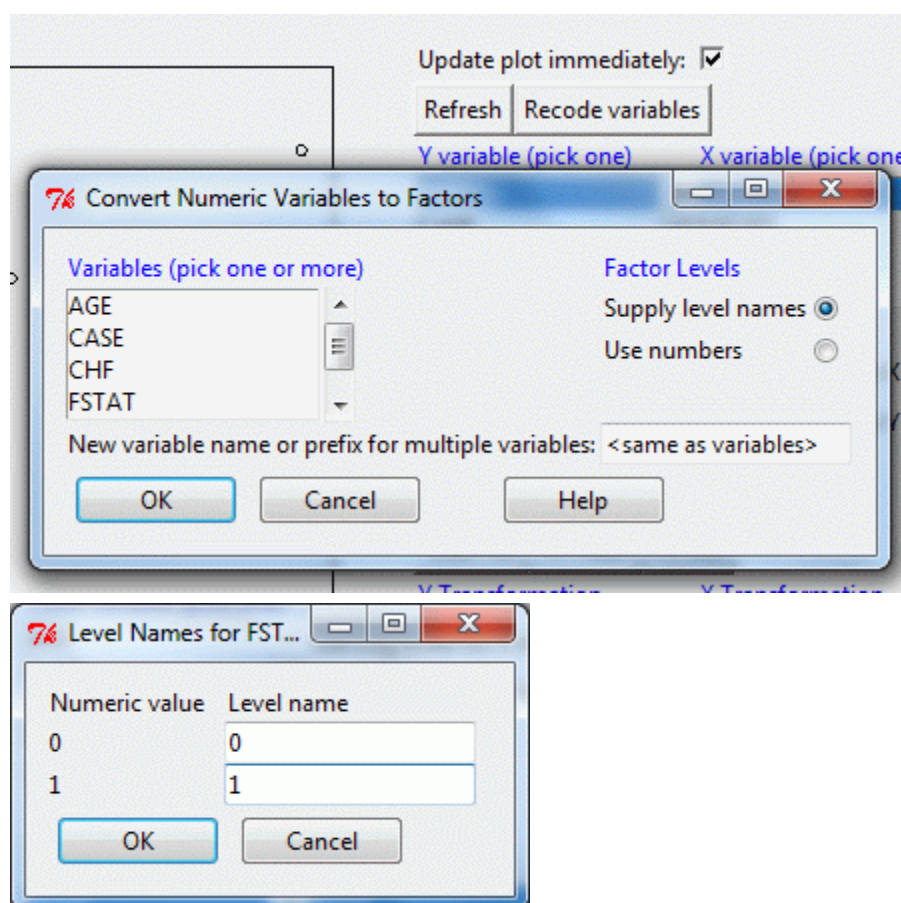
Fit Y by X

Regression using one of four models, or a histogram.

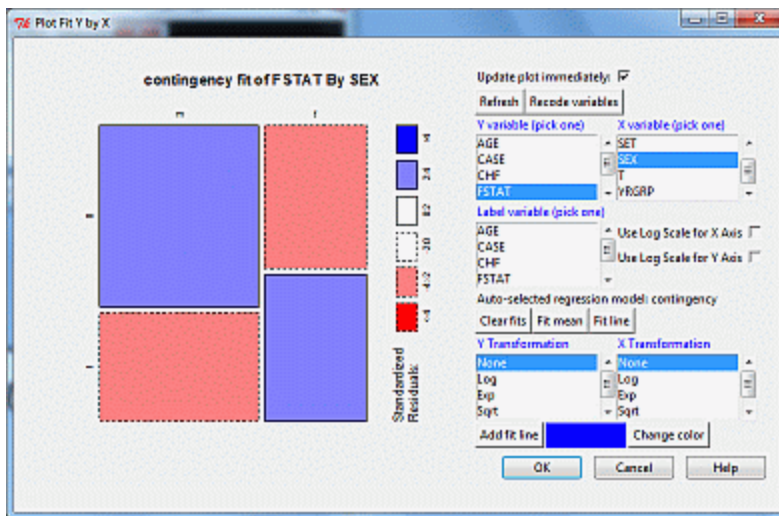
- Select a single variable to plot a histogram of that variable. Click refresh.



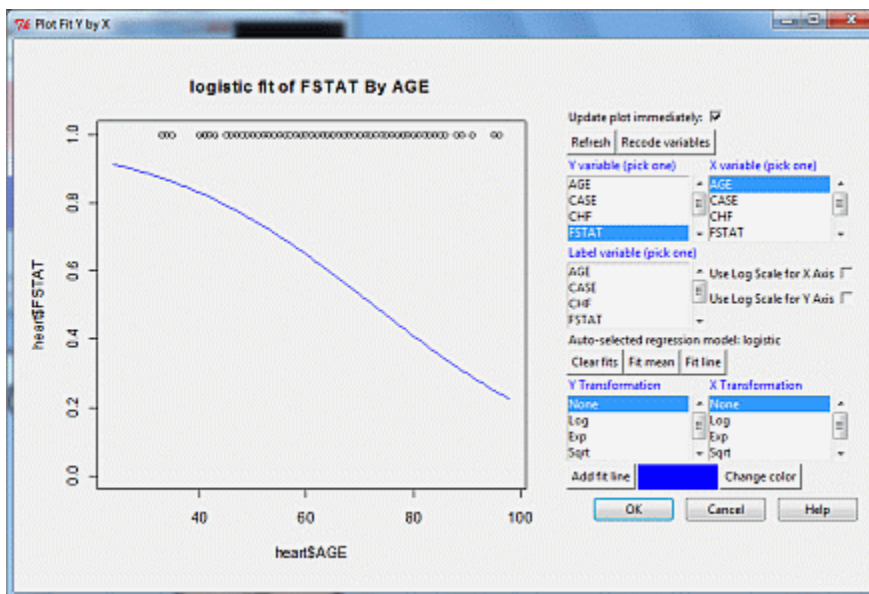
- Recode numeric vectors as factors



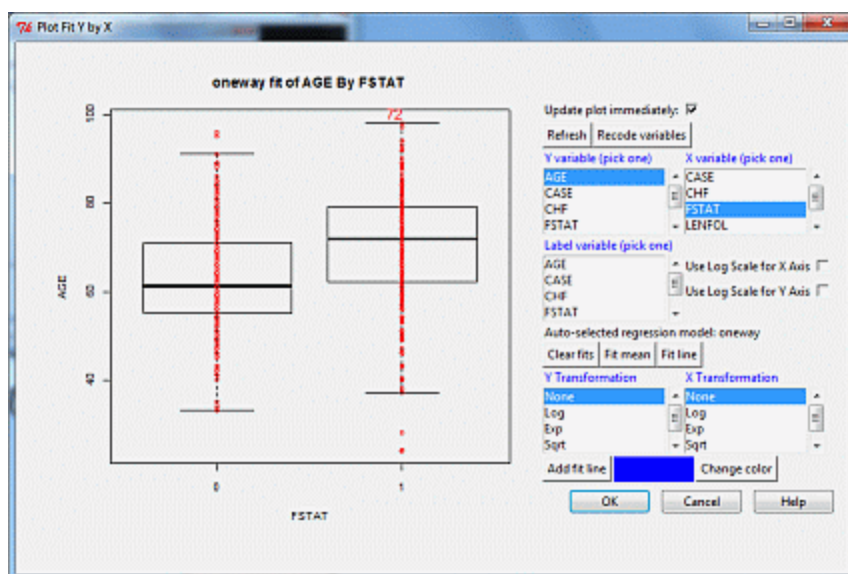
- Plot factors Y and X as a contingency table.



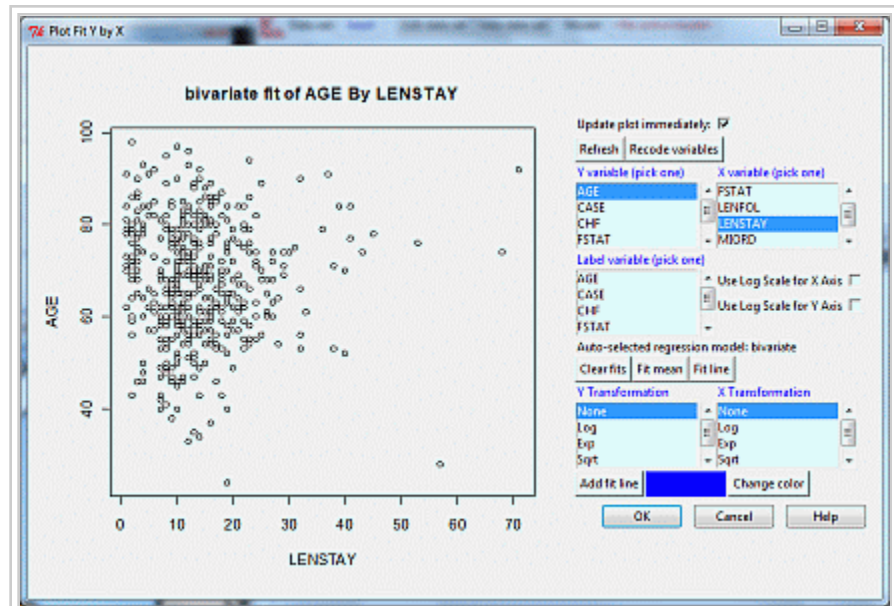
- Plot factor Y and numeric X with logistic regression



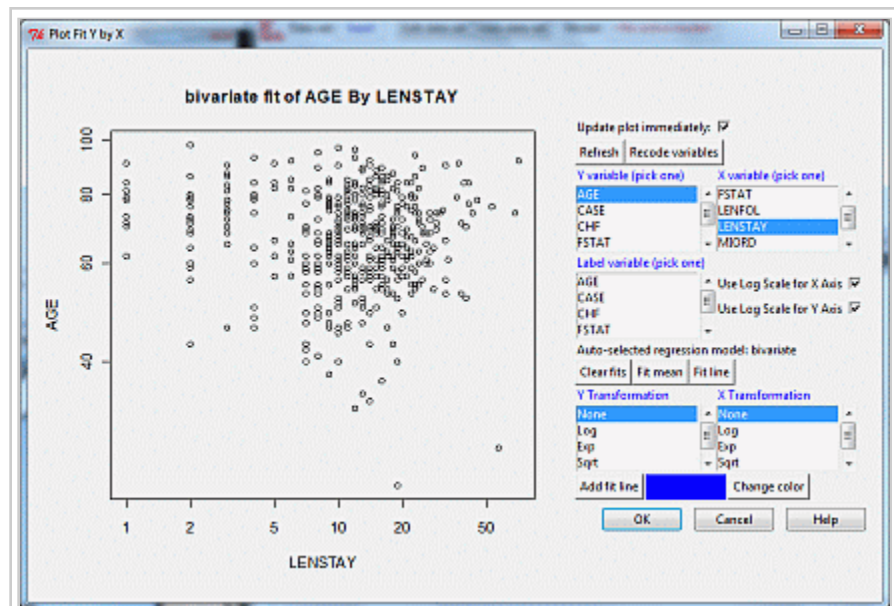
- Plot numeric Y and factor X with oneway regression



- Plot numeric Y and numeric X with bivariate regression

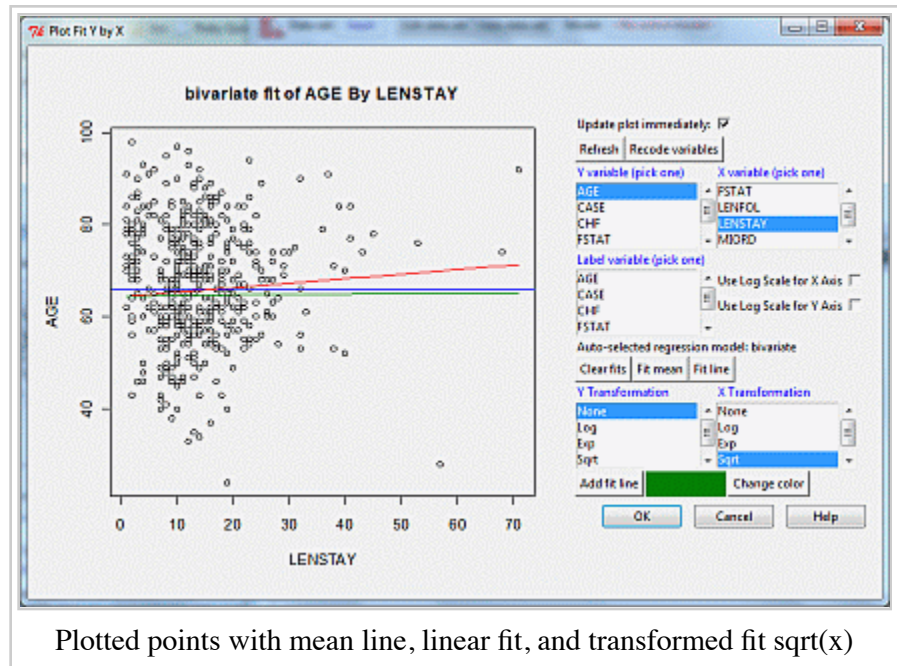


Plotted points with fits



Plotted points with log-scale axes

Retrieved from



Plotted points with mean line, linear fit, and transformed fit sqrt(x)

["https://mediawiki.wharton.upenn.edu/wcit/R"](https://mediawiki.wharton.upenn.edu/wcit/R)

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