

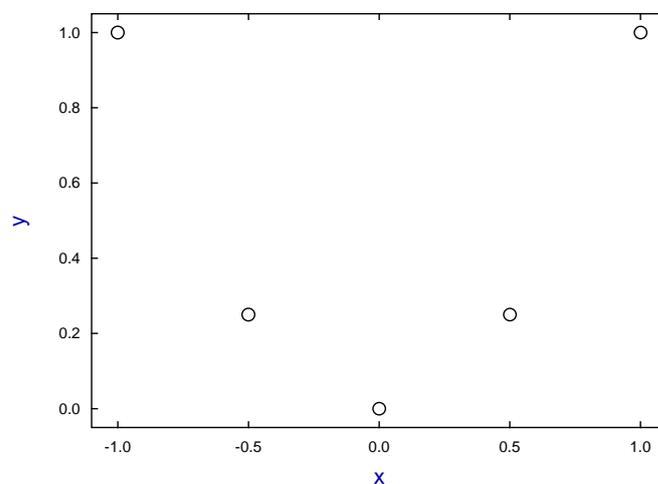


Tutorials and worked examples for simulation,
curve fitting, statistical analysis, and plotting.
<http://www.simfit.org.uk>

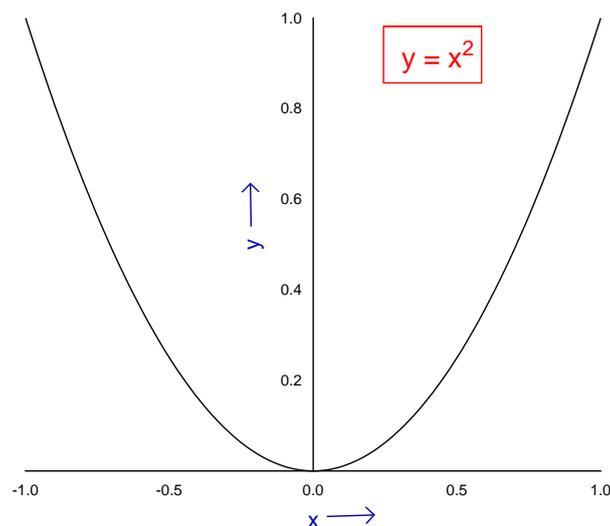
The easiest way to plot a simple graph is to open a text editor such as **notepad**, type in a two column data table with x in column 1 and y in column 2, copy to the clipboard, then input into program **simplot**. For instance, to plot the parabola $y = x^2$, you could type in this table to create the following default graph.

-1	1
-0.5	0.25
0	0
0.5	0.25
1	1

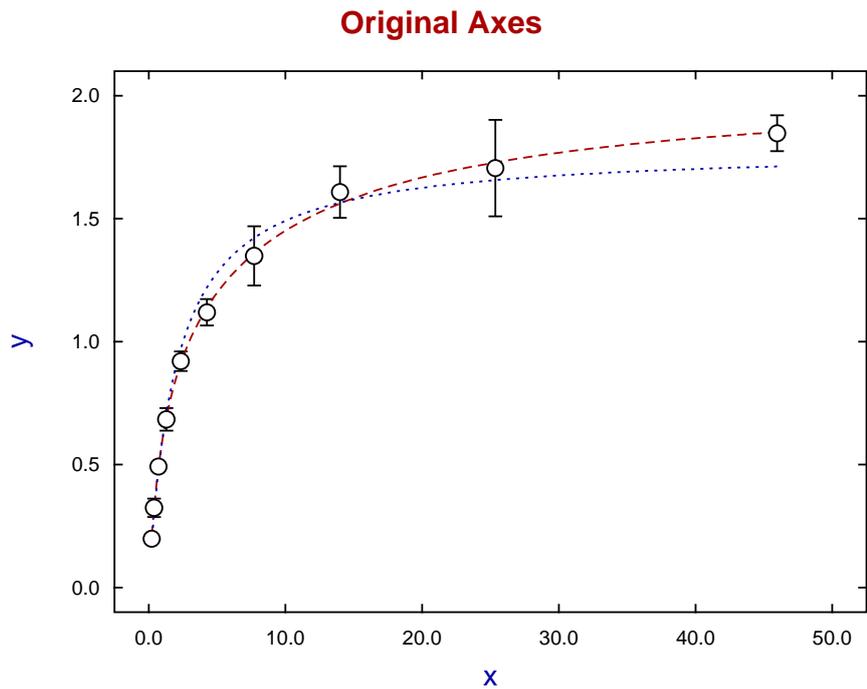
Original Axes



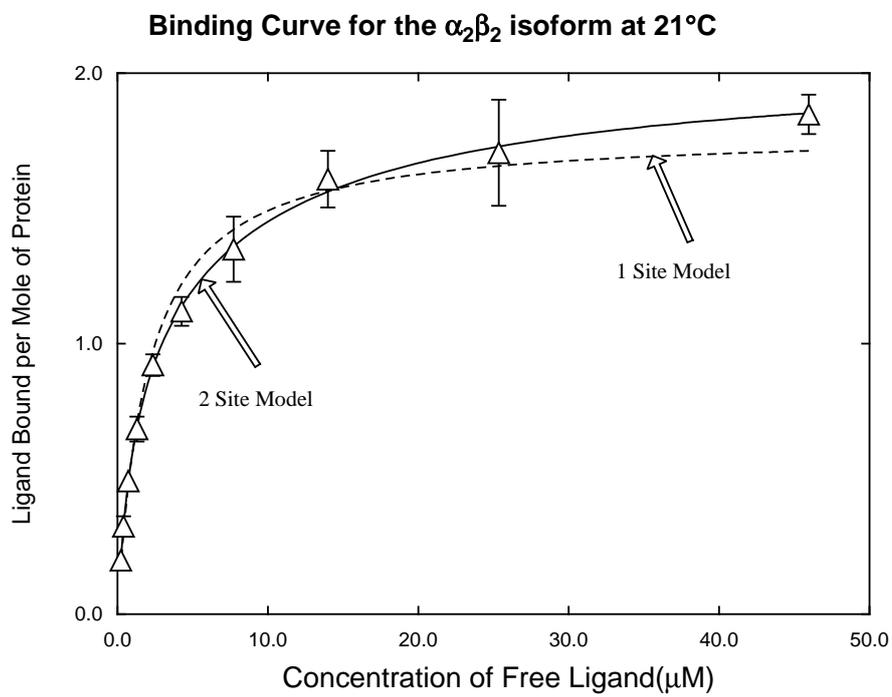
However, the following with 100 data points is probably more like what you had in mind.



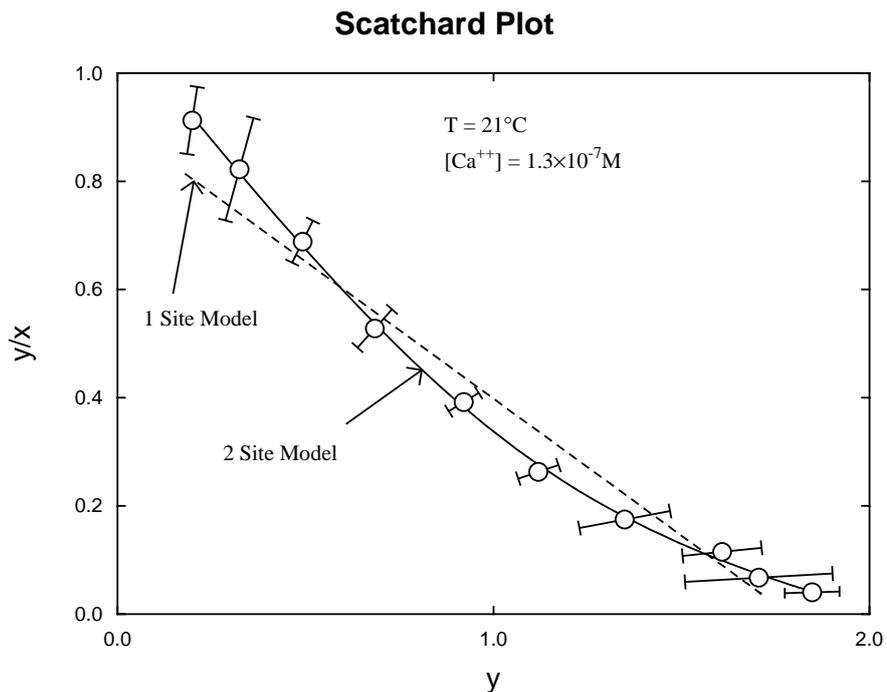
Of course you can copy and paste larger data sets from a spreadsheet program, but the superior way is to create SIMFIT data files. These can be input in collections using library files, as in the next example created by reading the library test file `simfig1.tfl` into program **simplot** leading to this default graph.



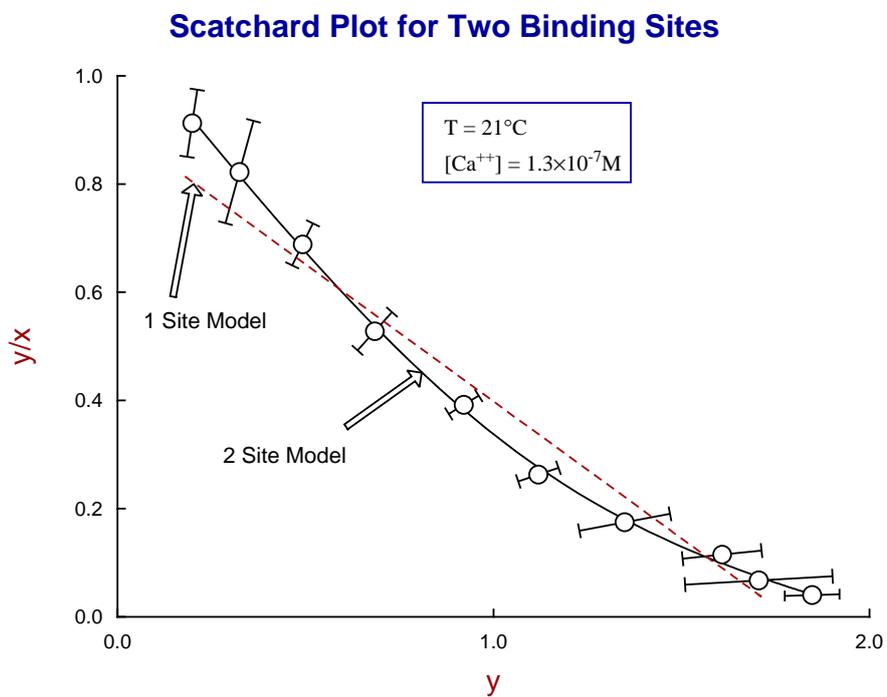
Since this was previously edited and the settings saved as the configuration file `w_simfig1.cfg`, this can now be input resulting in the next figure.



Alternatively the configuration file `w_simfig2.cfg` creates this figure.



This is simply the original data plotted in new coordinates and with additional features. Editing can then resume with this re-configured data in the same way as after reading in a `SmFIT` metafile, as demonstrated in the next figure.



Advice

1. Plotting a model equation

This is best achieved using program **makdat** with a model from the SIMFIT library or a user-supplied model file, as the range and number of points can be chosen interactively.

2. Simple Graphics

During data analysis SIMFIT often displays a standard graph in simple graphics mode which only offers limited editing options and hardcopy possibilities. If there is reason to dedicate time and effort to make a superior graphics presentation, there is a [Advanced] option which allows users to transfer to advanced graphics, or to add coordinate files to your project archive for retrospective use.

3. Advanced graphics

From this interface extensive editing can be carried out before saving as a graphics file.

4. Plotting multiple data sets

Groups of files for plotting are best collected into library files using coordinate files saved into your graphics project archive, as then they are certain to have the correct format.

5. Saving a SIMFIT metafile

Once a graph has been edited you can store a configuration file, which is a template containing the editing details that can be input retrospectively to over-write the standard default parameters. Alternatively the editing details and the data can be saved to a SIMFIT metafile. Such metafiles can be input into program **simplot** to resume editing.

6. Saving Windows quality hardcopy

The recommended order of preference is as follows.

*.svg >> *.png > *.jpg > *.emf > *.tif >> *.bmp

Use *.svg vector files for internet graphics and *.png for including into documents. Enhanced metafiles (*.emf) can also be included in documents, but care must be taken not to change the aspect ratio.

7. Saving PostScript quality hardcopy

By far the superior way is to archive SIMFIT encapsulated PostScript files *.eps, because they are very compact, the resolution is device independent, they can be transformed into *.pdf and other graphics files, they can be edited in a text editor such as **notepad**, and there are many additional graphics procedures available. However, to get the most out of SIMFIT *.eps files you should have GhostScript installed and possibly a PostScript display program like Gsview.

8. Using GhostScript

This wonderful free package can be used to transform SIMFIT *.eps files into *.pdf, *.png, and *.jpg that are much higher quality than anything you can get from Windows hardcopy. However *.svg files saved directly using the Windows hardcopy option are true vector graphics created by SIMFIT and are actually superior to the *.svg files created from *.eps by Ghostscript.