

SimPlot - Overlay of Graphs with Variation of a Function Parameter

José Maurício Schneedorf Ferreira da Silva

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In some situations, it is useful to compare the behavior of a function as one of its parameters varies. The *SimPlot* program allows graphical visualization of overlaid profiles of an equation in which different values are assigned to a given parameter (“ k ”).

1 Usage and example

To use *SimPlot*, the following elements must be placed on the stack prior to running the program:

```
# Input:
1. mathematical function;
2. minimum x-value of the function ("xi");
3. maximum x-value of the function ("xf");
4. list containing the values of the parameter "k" to be varied;

# Output:
1. animated plot of the equation with variation in "k";
2. function, values, and list remaining on the stack for further modifications.

# Example:
1. Select "exSim" to load the example list;
2. Press EVAL to unpack the list;
3. Run "SimPlot".
```

The figures below illustrate the program using the provided example.

2 Files:

1. Program
2. Source code
3. This tutorial



(a) Insertion of SimPlot data.

(b) Results obtained from graphical overlay.

Figure 1: *SimPlot* program running on the Android version of the HP50G calculator ([Go49gp](#)).

Author

José Maurício Schneedorf Ferreira da Silva
Dept. Biochemistry, Institute of Biomedical Sciences
Federal University of Alfenas - UNIFAL-MG, Brazil
Email: jose.dasilva@unifal-mg.edu.br

Site: <https://bioquanti.netlify.app>
Lattes: <http://lattes.cnpq.br/0436922594542722>
ORCID: 0000-0002-2031-6315