

PlotErr – Function Simulator with Random Error

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The *PlotErr* program allows visualization of a scatter plot generated from a user-defined equation together with a specified coefficient of variation (CV%). This makes it possible to analyze the graphical profile of an equation under the influence of associated random errors.

1 Usage and example

The program uses the PROMPT command for data input.

```
# Input:
1. Select "PlotErr" to display the data request: "f(x), xi, xf, int, cov%";
2. Enter the equation as "f(x)";
3. Minimum x-value ("xi");
4. Maximum x-value ("xf");
5. Interval between points;
6. Coefficient of variation (CV%).
```

Note: If using the example included in the compressed file, simply run EVAL to unpack the list containing the data.

```
# Output:
1. Scatter plot of points;
2. Data matrix containing the "x" and "y" values.
```

The figures below illustrate the program using the provided example.

2 Files

1. Program
2. Example
3. Source code
4. This tutorial

3 Result

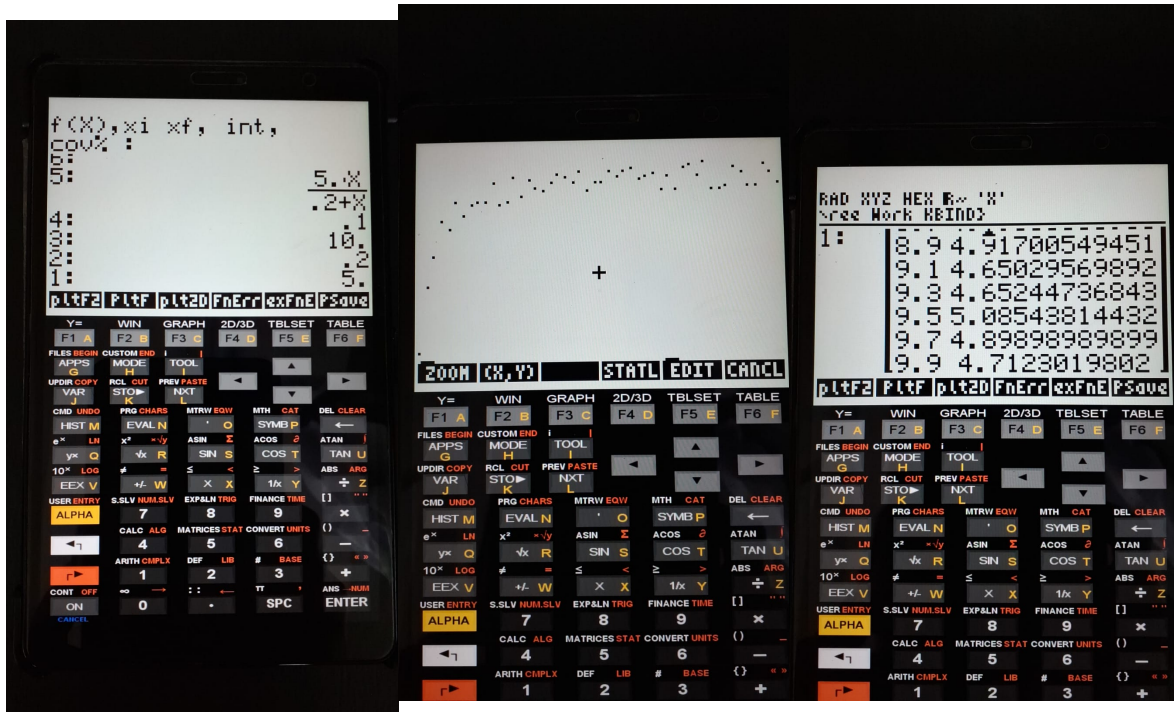


Figure 1: *PlotErr* program running on the Android version of the HP50G calculator ([Go49gp](#)), showing data input and the resulting outputs.

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