PRG, EDA. Grau en Informàtica.

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DATASHEET – Summary of *gnuplot* commands.

plot `> plot sin(x), "f.dat" using 1:2`	For plotting several graphs corresponding to the specified functions. When a file name is given whose contents are one o more columns `col1 col2 col3 …`, the plot command plots a point in the 2D canvas, one point per line, the `using n:m` clause allows to select the column `n` for x-axis values and the column `m` for y-axis values.
f(x)=... `> f(x)=a*x**2+b*x+c`	Define a user function according to the written formula.
fit `> fit f(x) "f.dat" using 1:3 via a,b,c`	Adjust by means of the minimum square error the specified function with the provided data. The values of coefficients `a`, `b` and `c` are estimated.
set $\left\{\begin{matrix} xlabel \\ ylabel \\ title \end{matrix}\right\}$ `> set xlabel "talla"`	Sets the values for the label of x-axis, y-axis or graph title respectively.

set $\left\{\begin{matrix} term \\ output \end{matrix}\right\}$
`> set term postscript`
`> set output "nomFitxer"`
	Changes the terminal type (`postscript` for printing, `x11` for screen).
	
	Changes the output to a file, the file name specified is used.

set $\left\{\begin{matrix} x \\ y \end{matrix}\right\}$ *range*
`> set xrange [min:max]`
`> set yrange [min:max]`
	Changes the range of values for `x` and `y` axis. Only values within the range are plotted.

replot	Repeats the last plot.

?
`> ?`
`> ? fit`
	gnuplot online manual. General or for the specified command.

quit	For closing *gnuplot*.

Example of a session.

```
      ⋮
$ cat  result.dat
# Running time in milliseconds of the methods of the Matrix class.
# Size MatVectProduct  ProductOfMatrices
   100             2           23
   200             2          137
   300             1          524
   400             2         1494
   500             3         3112
   600             3         5588
   700             5         9180
   800             7        14041
   900             8        20055
  1000            10        27888
$ gnuplot
> set xlabel “size”
> set ylabel “time (milliseconds)”
> set title “Product of matrices”
> plot “result.dat” using 1:3    (Figure 1)
> g(x)= a*x**3 + b*x**2 +c*x+d
> fit  g(x) “result.dat” using 1:3 via a, b, c, d
    ⋮
> plot g(x), “result.dat” using 1:3 (Figure 2)
> set term postscript
> set output “graphProd”
> replot
> quit
$ lpr graphProd
    ⋮
```

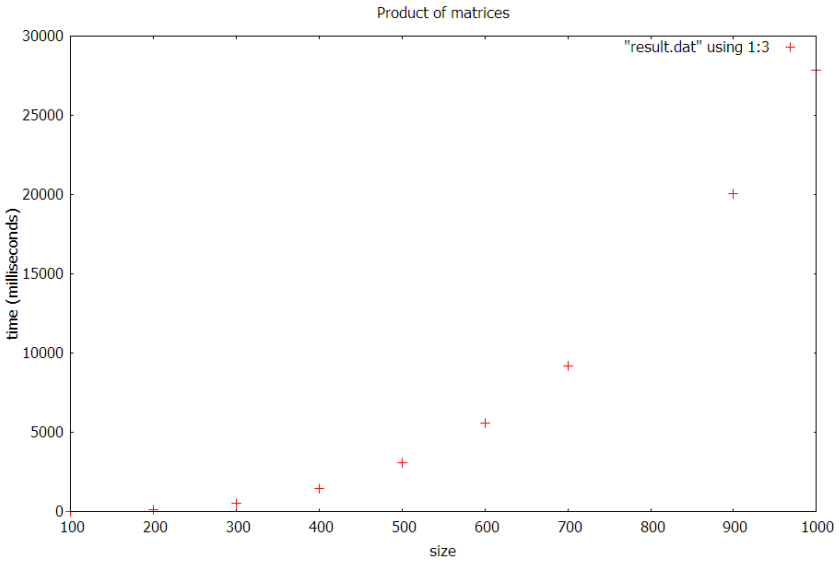

Figure 1

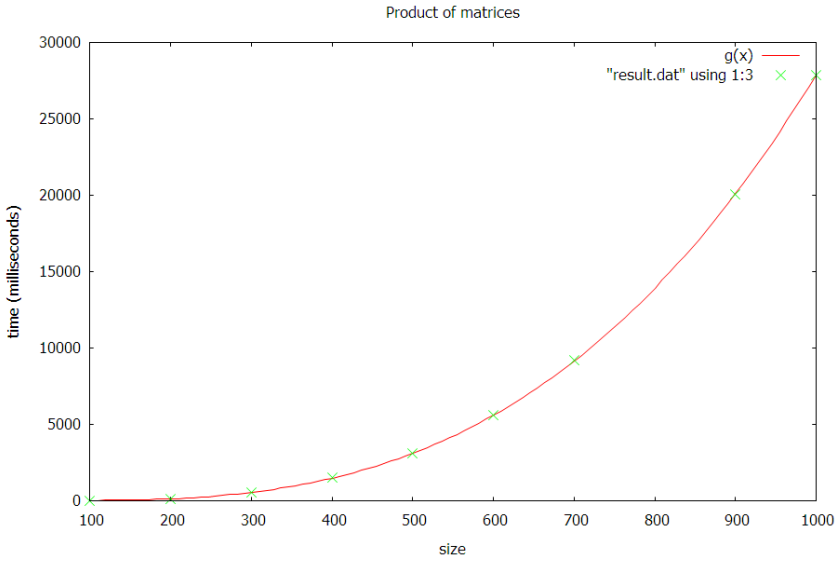
Product of matrices
g(x)
"result.dat" using 1:3
time (milliseconds)
size
0
5000
10000
15000
20000
25000
30000
100
200
300
400
500
600
700
800
900
1000

Figure 2