

GnuPlot, an Introduction

Gert K. Sønderby Mikkel B. Mortensen Sarah M. Niebe

May 10, 2007

Introduction

What is GnuPlot
Why use GnuPlot
Plotting in GnuPlot
Datafiles
Scripting
A Demonstration

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- ▶ Open source software

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Why use GnuPlot

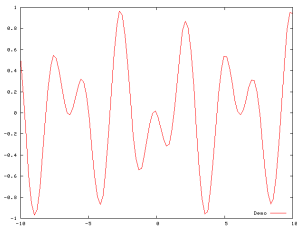
- ▶ Easy to use
- ▶ No annoying graphical interface
- ▶ Wide range of options
- ▶ Capable of handling colossal amounts of data
- ▶ Because Excel sucks!

Plot and Splot

Plot

A 2D plotting tool, use:

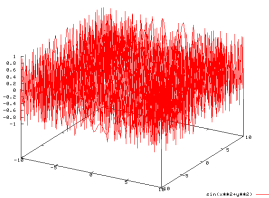
```
gnuplot> plot  
sin(x*2+10)*sin(x*.5)  
with lines title 'Demo'
```



Splot

A 3D plotting tool, use:

```
gnuplot> plot  
sin(x**2+y**2)
```



How to import data from a datafile

Importing test data

```
test.data
# X Y
  1.0 1.2
  2.0 1.8
  3.0 1.6
```

Importing from a datafile:

```
gnuplot> plot "test.data" using 1:2
```

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- ▶ Can be invoked in a makefile
- ▶ Avoids the use of interactive session, when not needed

Scripting in GnuPlot

Case study

Comparing data sets:

When you have several data sets and need to compare them, scripting allows generation of all desired graphs in one run.

```
app-4 > gnuplot script.gnu
```


Scripting in GnuPlot

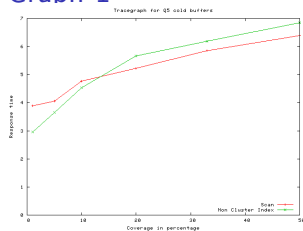
Case study

```
set terminal postscript eps noenhanced color solid defaultplex
"Times-Roman" 18
set output "img/q3graf.eps"
set xlabel "Threads"
set ylabel "Time"
set title "Tracegraph for Q3"

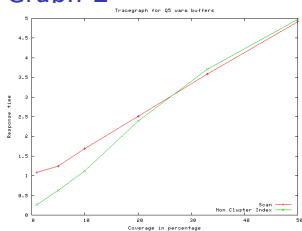
plot [0:] [0:] "serializable.data" title 'Serializable' with linespoints,\
"read_comitted.data" title 'Read comitted' with linespoints
```

Scripting in GnuPlot

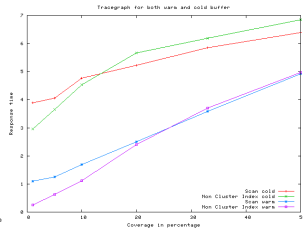
Graph 1



Graph 2



Combined



Show and tell by Gert

Gert will now give you a tour of GnuPlot's interactive shell