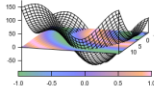
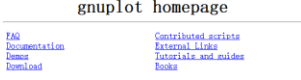
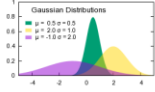


# 1. Install and run the gnuplot

gnuplot can be downloaded from the official website: <http://gnuplot.info/>



**gnuplot** is a portable command-line driven graphing utility for linux, OS/2, MS Windows, OSX, VMS, and many other platforms. The source code is copyrighted but freely distributed (i.e., you don't have to pay for it). It was originally created to allow scientists and students to visualize mathematical functions and data interactively, but has grown to support many non-interactive uses such as web scripting. It is also used as a plotting engine by third-party applications like Octave. Gnuplot has been supported and under active development since 1986.

Gnuplot supports many different types of 2D and 3D plots  
Here is a [Gallery of demos](#).

Gnuplot supports many different types of output

Interactive screen display:	cross-platform (Qt, wxWidgets, x11) or system-specific (MS Windows, OS/2)
direct output to file:	postscript (including eps), pdf, png, gif, jpeg, LaTeX, metafont, emf, svg, ...
nonvisual web display formats:	HTML5, svg

**Version 5.0 (previous stable)**

- [Release 5.0.1](#)
- [Release Notes](#)
- [User Manual \(PDF\)](#)
- [version 5.0 demo gallery](#)
- [contributed executables for OSX](#)

**Version 5.2 (current)**

- [Release 5.2.2](#) (November 2017)
- [Release Notes](#)
- [User Manual \(PDF\)](#)
- [demo gallery](#)


**The Development version is gnuplot 5.3**

- New features are being added regularly. Development has recently transitioned from cvs to git. Git repository [here](#).
- [Version 5.3 Documentation \(PDF\)](#)
- [Version 5.3 demo gallery](#)


**Release History**

- gnuplot 5.2 Sep 2017 ([5.2.2](#) Nov 2017)
- gnuplot 5.0 Jan 2015 ([5.0.1](#) Aug 2017)
- gnuplot 4.6 Mar 2012
- gnuplot 4.4 Mar 2010
- gnuplot 4.2 Apr 2007
- gnuplot 4.0 Apr 2004

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Gnuplot is [copyrighted](#)



**Gnuplot in Action**  
Second Edition  
by Phillip E. Janert  
*Updated for gnuplot 5*  
No Starch Publishing (2016)  
ISBN: 1603430109  
ISBN-10: 9781603430109



**Gnuplot 5**  
by Lee Phillips  
Packt Publishing (2017)  
ISBN - 978-1-60343-401-6

March 2018

## gnuplot download

Current gnuplot major version is 5.2

- [Primary download site on SourceForge](#)
- [git repository](#)
- [Release Notes](#)

The most recent release was 5.2.2 (Nov 2017)

### Downloads offered by others

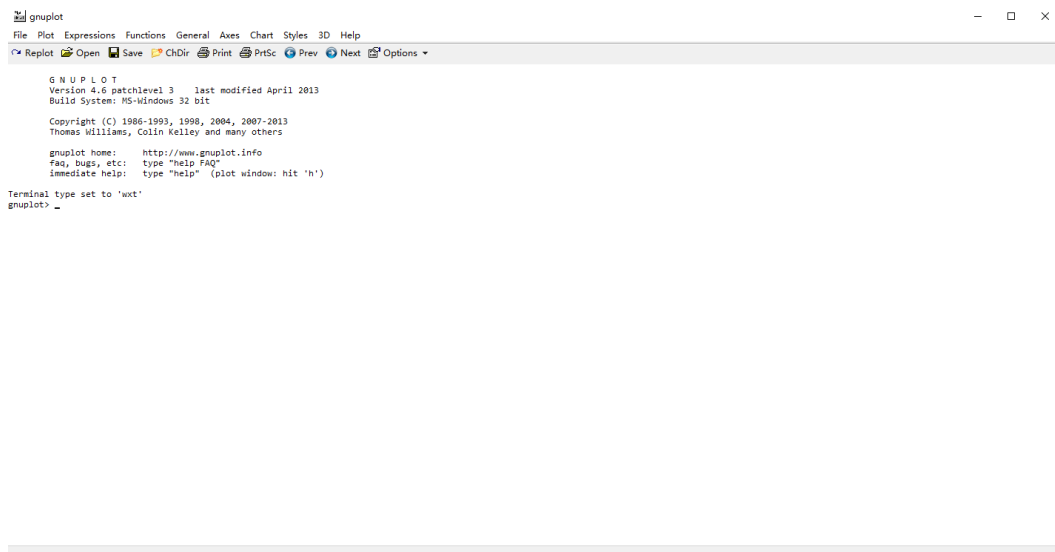
- Development version:**
- Windows binaries built by Tatsuro Watanaka: [cygwin](#) and [MinGW](#)
  - Contributed Macintosh and linux (deb) binaries may be available at [nix.fis.ucm.es](#)

- Various Sources and binaries (miscellaneous operating systems):**
- Gnuplot on sourceforge, section [files](#).
  - CTAN mirrors: [ftp.dante.de](#), [ftp.tex.ac.uk](#), [ftp.cnetus.cs](#).
  - Linux rpm/deb/etal packages: see servers of your favourite distributor.

[Go back](#) to gnuplot homepage.

Version: January 2018

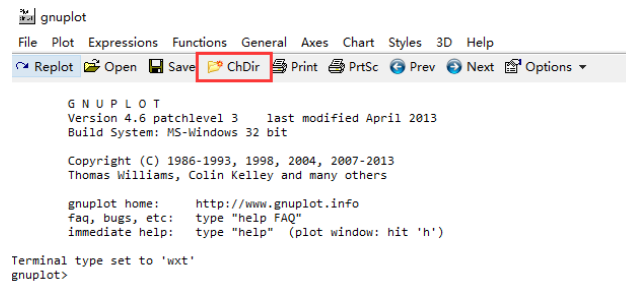
After finishing the install of gnuplot, we can search the name of “gnuplot” on the search box of Windows on the right bottom of your computer and run the gnuplot through command window.



In the command window of gnuplot, you can put into the commands and data to draw all kinds of graphs.

You can also write gnuplot script files in “.p” format and run the script file through the command window by the following steps:

(1) Change the directory to your current folder using the “ChDir” button.



(2) Type the command “load ‘time-space.p’”to run the script.

## 2. Explanation on the gnuplot code

```
#set the scale of x and y axis to 1
```

```
set xtic 1
```

```
set ytic 1
```

```
#set the title name of the graph
```

```
set title "Time-space trajectory of two agents" font "Times New Roman,18"
```

```
#set the label of x and y axis and their fonts
```

```
set xlabel "Time Stamp" font "Times New Roman,18"
```

```
set ylabel "Cell" font "Times New Roman,18"
```

```
#set the fonts of the numbers on the x and y axis
```

```
set xtics font "Times New Roman,18"
```

```
set ytics font "Times New Roman,18"
```

```
#draw a grid in the diagram
```

```
set grid
```

```
#read data from the .dat files, specifies names for those two lines with points
```

```
# set the size of points and width of the lines
```

```
plot "data1.dat" using 1:2 title "Agent1" with linespoints pt 5 ps 2, \
```

"data2.dat" using 1:2 title "Agent2" with linespoints pt 7 ps 2

#set the fonts for the legend

set key font "Times New Roman,12"

#set the location of the legend to the top left of the figure

set key left top

### 3. Some examples of time-space graph using gnuplot

