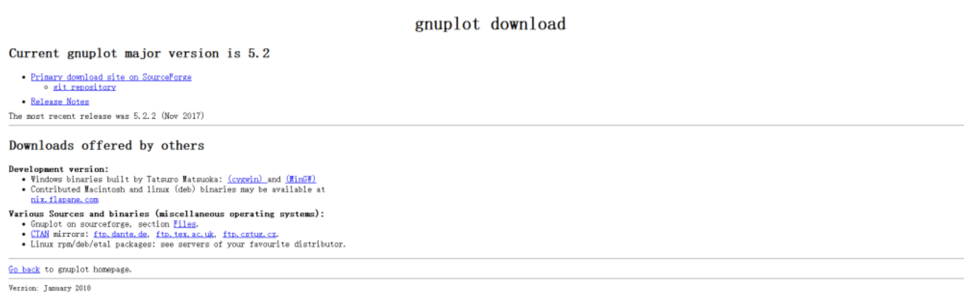
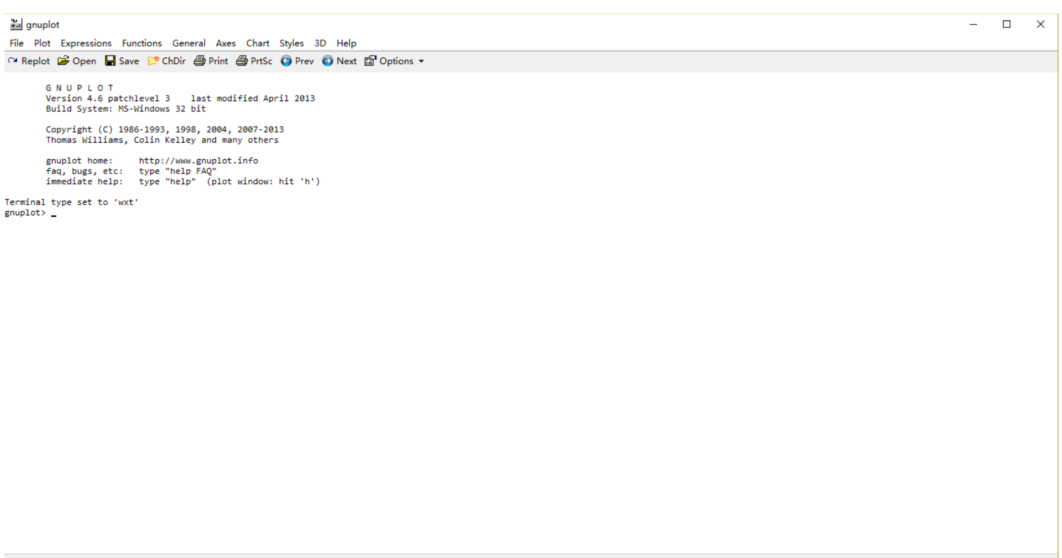
1. Install and run the gnuplot

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



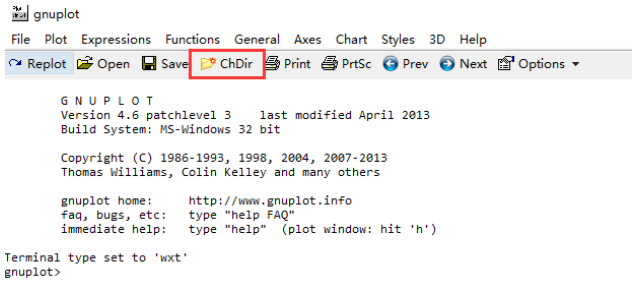
After finishing the install of gnuplot, we can search the name of "gnuplot" on the search box of Windows on the right bottom of your computer and run the gnuplot through command window.



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

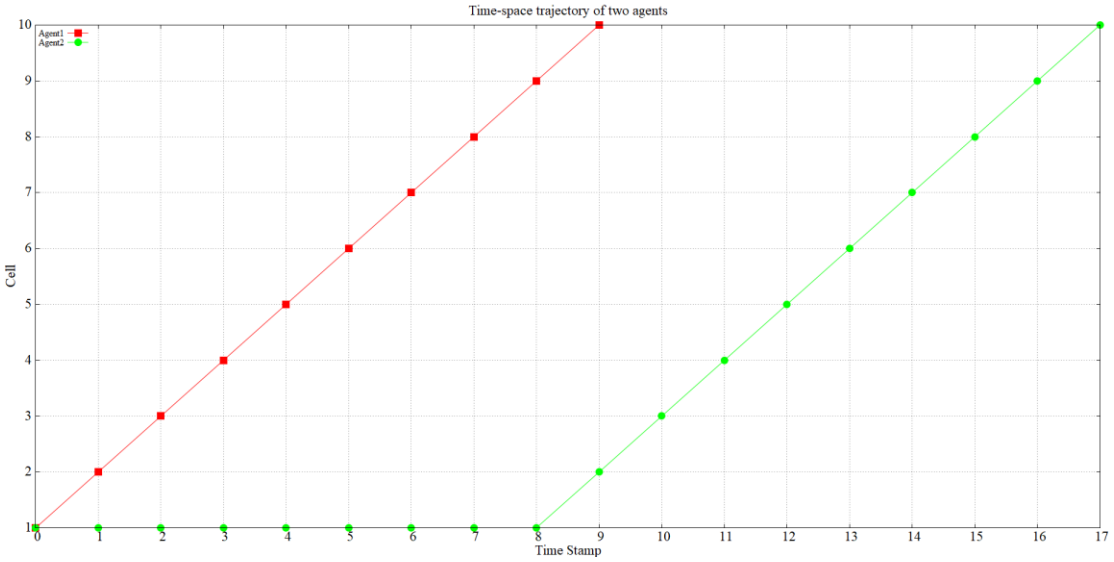
```
#set the scale of x and y axis to 1
set xtic 1
set ytic 1

#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, \
```

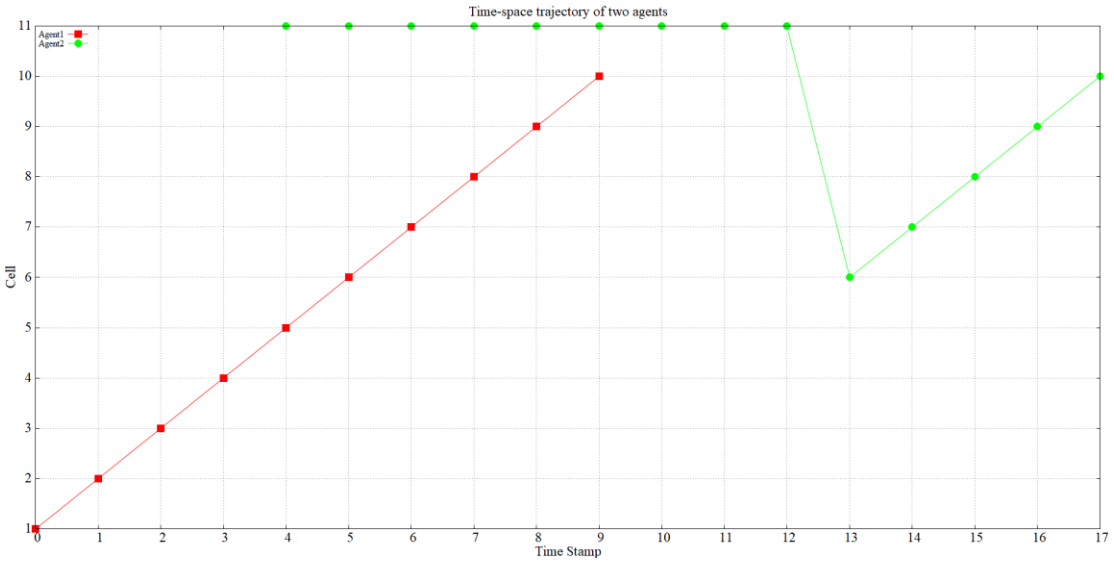
"data2.dat" using 1:2 title "Agent2" with linespoints pt 7 ps 2

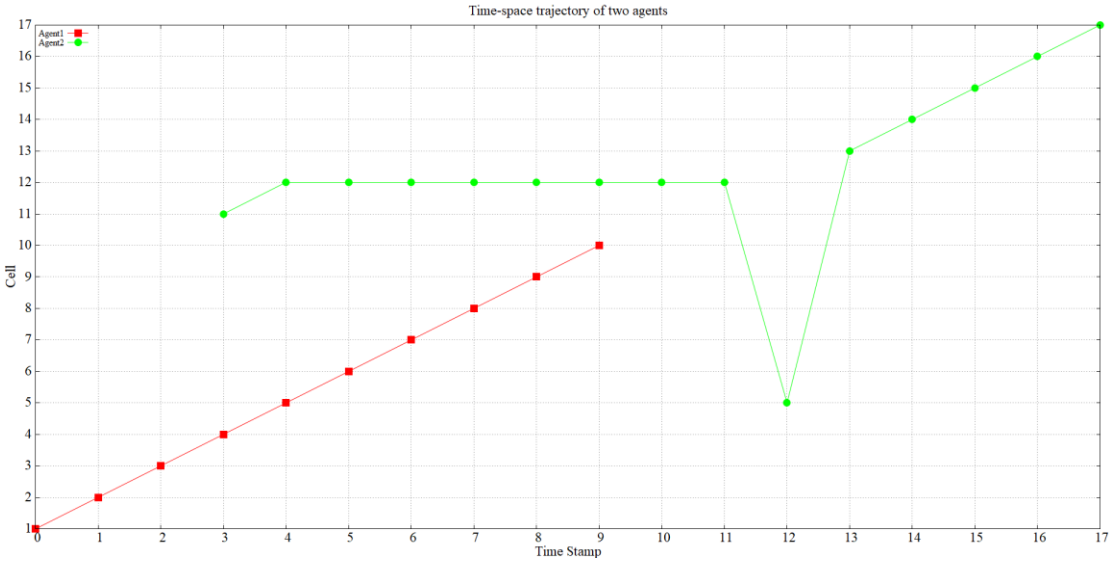
#set the fonts for the legend
set key font "Times New Roman,12"

#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






Time-space trajectory of two agents
Agent1
Agent2
Cell
Time Stamp
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
0