

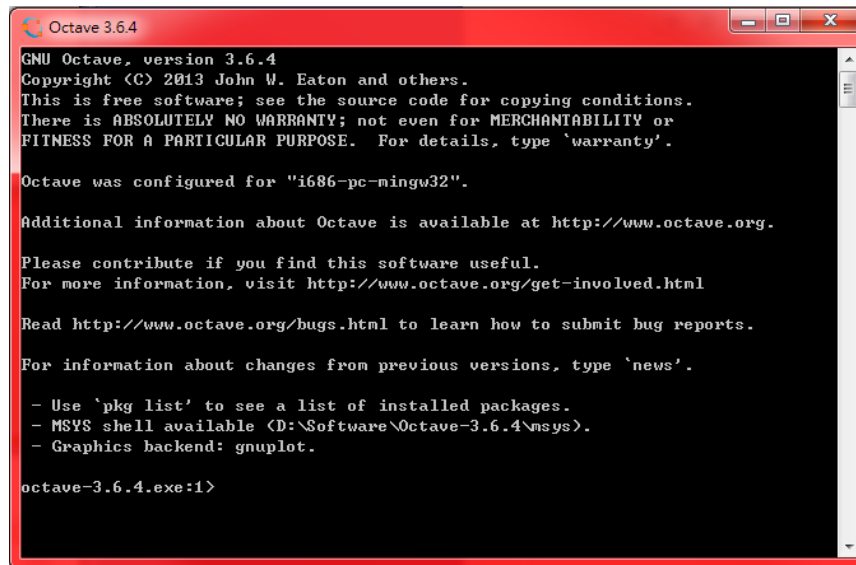
# 輔助軟體介紹\_GNU Octave

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(分機: 5715)

# GNU Octave

- 類似Matlab的command window



```
GNU Octave, version 3.6.4
Copyright (C) 2013 John W. Eaton and others.
This is free software; see the source code for copying conditions.
There is ABSOLUTELY NO WARRANTY; not even for MERCHANTABILITY or
FITNESS FOR A PARTICULAR PURPOSE. For details, type `warranty'.

Octave was configured for "i686-pc-mingw32".

Additional information about Octave is available at http://www.octave.org.

Please contribute if you find this software useful.
For more information, visit http://www.octave.org/get-involved.html

Read http://www.octave.org/bugs.html to learn how to submit bug reports.

For information about changes from previous versions, type `news'.

- Use `pkg list' to see a list of installed packages.
- MSYS shell available (D:\Software\Octave-3.6.4\msys).
- Graphics backend: gnuplot.

octave-3.6.4.exe:1>
```

- 索引

- 官方 <http://www.gnu.org/software/octave/doc/interpreter/>
- 中文教學 [https://sites.google.com/site/octavetech/octave\\_introduction](https://sites.google.com/site/octavetech/octave_introduction)
- 下載網址 <http://www.gnu.org/software/octave/download.html>

# GNU Octave\_下載

**Step 1**

A screenshot of a Google search for 'octave'. The search results show several links. The first link, 'GNU Octave', is highlighted with a red box. Below it, there are links for 'octave 的中文翻譯 英漢字典' and 'Octave-Forge'.

**Step 2**

A screenshot of the GNU Octave website. The navigation menu on the right side is highlighted with a red box, showing links for 'Home', 'About', 'Download', 'Support', 'Get Involved', and 'Donate'. The main content area shows a screenshot of the Octave software interface with a 3D plot.

## Index of /gnu/octave/windows

**Step 4**

Name	Last modified	Size	Description
<a href="#">Parent Directory</a>	-	-	-
<a href="#">octave-4.0.0_0-installer.exe</a>	2015-05-28 14:43	175M	
<a href="#">octave-4.0.0_0-installer.exe.sig</a>	2015-05-28 14:43	72	
<a href="#">octave-4.0.0_0.zip</a>	2015-05-28 14:49	256M	
<a href="#">octave-4.0.0_0.zip.sig</a>	2015-05-28 14:49	72	
<a href="#">source/</a>	2015-06-12 15:35	-	

Apache/2.4.7 (Trisquel\_GNU/Linux) Server at ftp.gnu.org Port 443

**Step 3**

an Octave source release and the availability of a package for a particular GNU/Linux distribution varies. The Octave project has no control over that process.

### OS X

The Wiki has some instructions for installing Octave on OS X systems.

### Windows

Windows binaries with corresponding source code can be downloaded from <https://ftp.gnu.org/gnu/octave/windows/>

### Sources

The latest released version of Octave is always available from <ftp://ftp.gnu.org/gnu/octave>.

# 基本指令

- `clc`: 清空command window
- `clear`: 清空workspace
- `who`: 顯示現存空間的所有變數
- `whos`: 顯示現存空間的所有變數資訊

# Demo

The image shows a screenshot of the Octave 3.6.4 Command Window and Command History. The Command Window displays the following code and output:

```
>> a = 1  
  
a =  
  
    1  
  
>> b = 2;  
>> whos  
  
Name      Size      Bytes  Class  Attributes  
  
a         1x1         8  double  
b         1x1         8  double  
  
>> who  
  
Your variables are:  
  
a b  
  
>> clear  
>> who  
  
fx >>
```

The Command History window shows the following commands and their execution times:

```
...FB = [1.03 1.52 1.98 2. ...  
...FB = FB./2  
...pressure_1d(0.4e6,0.08,  
...e^20  
... 2013/9/30 上午 10:37 -  
... imshow octave-logo.png  
... 2013/10/1 下午 8:04 -  
... a=1  
... who  
... 2013/10/1 下午 9:19 -  
... 2013/10/2 下午 1:56 -
```

The Octave 3.6.4 Command Window output shows the following commands and their execution times:

```
octave-3.6.4.exe:2> a = 1  
a = 1  
octave-3.6.4.exe:3> b = 2;  
octave-3.6.4.exe:4> whos  
Variables in the current scope:  
  
Attr Name      Size      Bytes  Class  Attributes  
==== =====  
a         1x1         8  double  
b         1x1         8  double  
  
Total is 2 elements using 16 bytes  
  
octave-3.6.4.exe:5> who  
Variables in the current scope:  
  
a b  
  
octave-3.6.4.exe:6> clear  
octave-3.6.4.exe:7> who  
octave-3.6.4.exe:8>
```

# Demo

- `>> A = [1 2 3; 4 5 6; 7 8 9; 10 11 12]; % 建立 4x3 的矩陣 A`
- `>> A(4,3) = 10000` 將矩陣 A 第 4 列、第 3 行的元素值，改變為 10000
- `>> B = A(2:4,3)` % 取出矩陣 A 的第 2 至第 3 橫列、第三直行，並儲存成矩陣 B
- `>> C = [A; B']` % 將矩陣 B 轉置後、再以列向量併入矩陣 A
- `>> C(:, 3) = []` % 刪除矩陣 A 第三行
- `>> C([1,3:5],:)=1` %將第 1, 3,4,5 列內所有元素指定為 1
- `>> C([1,3:5],:)=[]` % 刪除第一、四列（：代表所有直行，[] 是空矩陣）