輔助軟體介紹_GNU Octave

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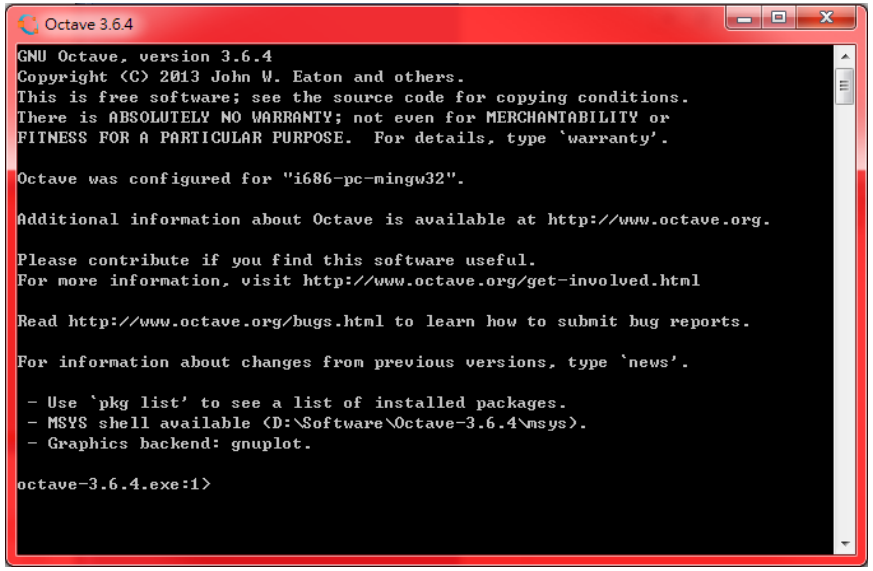
GNU Octave

- 類似Matlab的command window

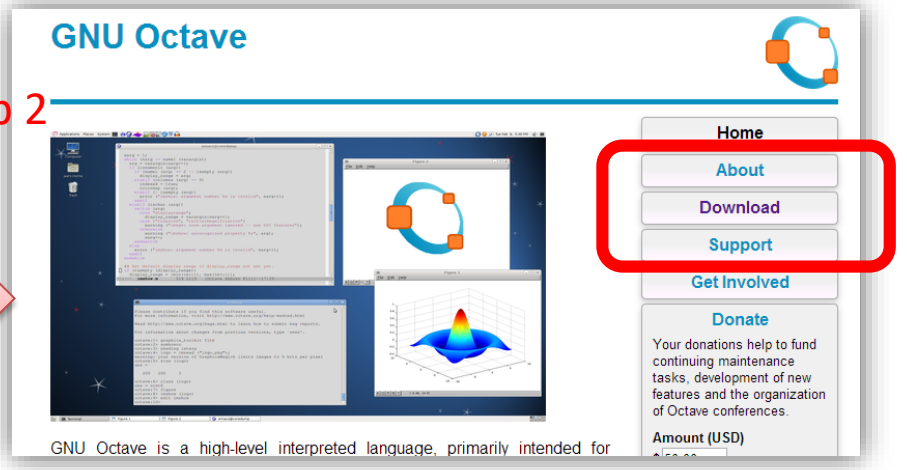


- 索引
  - 官方 http://www.gnu.org/software/octave/doc/interpreter/
  - 中文教學 https://sites.google.com/site/octavetech/octave_introduction
  - 下載網址http://www.gnu.org/software/octave/download.html

GNU Octave_下載

Step 1

Step 2



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.

Step 4

Index of /gnu/octave/windows

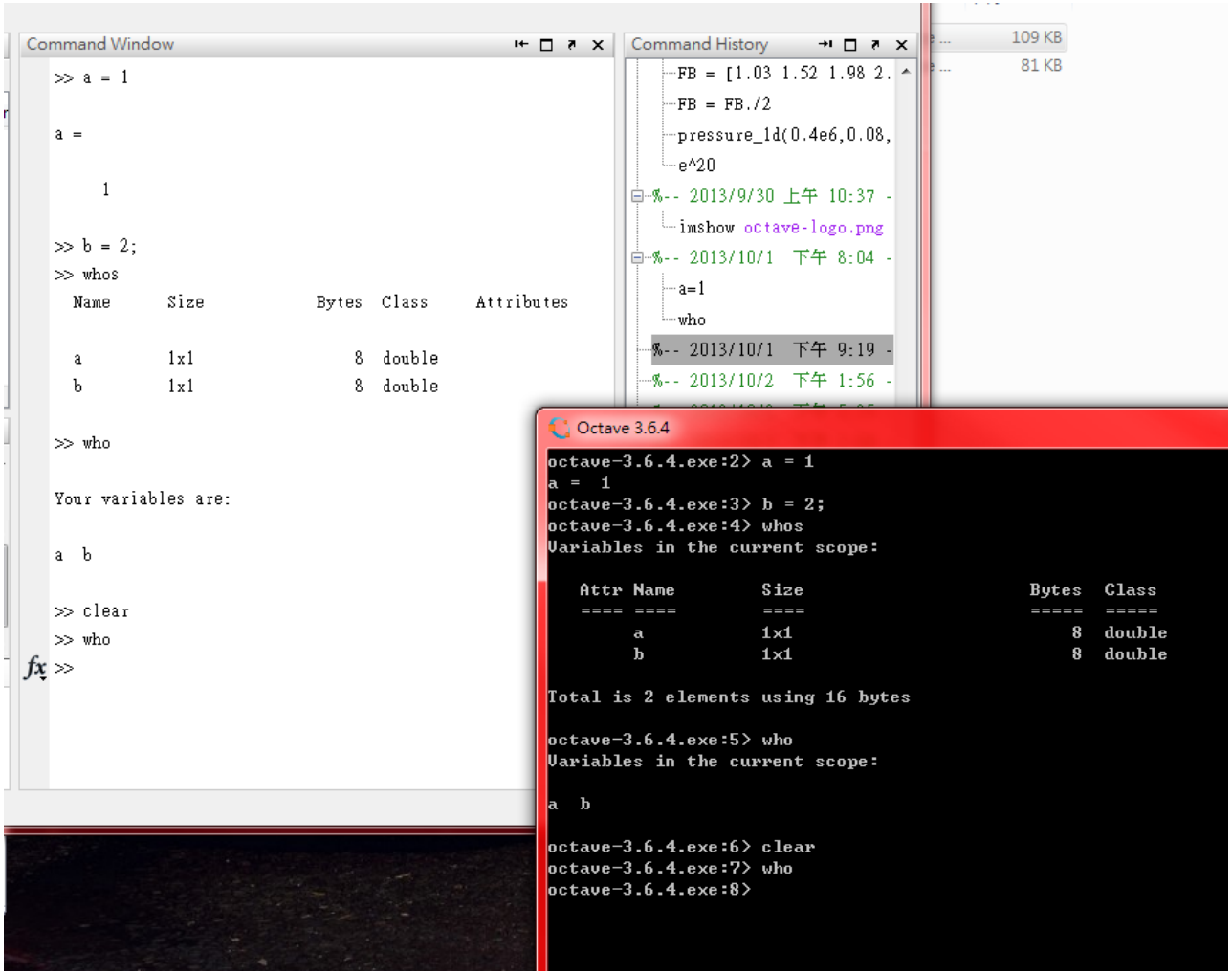
Name	Last modified	Size	Description
Parent Directory		-	
octave-4.0.0_0-installer.exe	2015-05-28 14:43	175M	
octave-4.0.0_0-installer.exe.sig	2015-05-28 14:43	72	
octave-4.0.0_0.zip	2015-05-28 14:49	256M	
octave-4.0.0_0.zip.sig	2015-05-28 14:49	72	
source/	2015-06-12 15:35	-	

Apache/2.4.7 (Trisquel_GNU/Linux) Server at ftp.gnu.org Port 443

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


Command Window
>> 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
>>
Command History
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 -
109 KB
81 KB
Octave 3.6.4
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
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）