

使用你的電腦

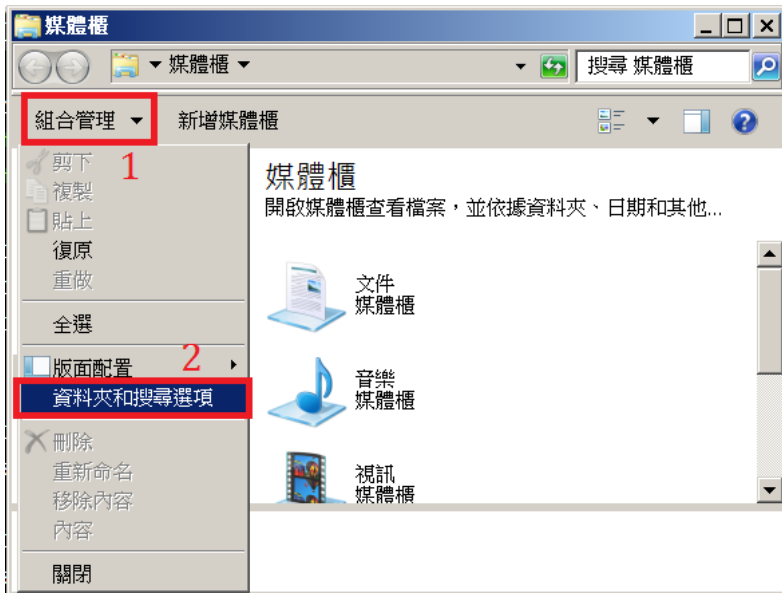
一些小知識

arbuztw, winston

2015 資訊之芽 語法班

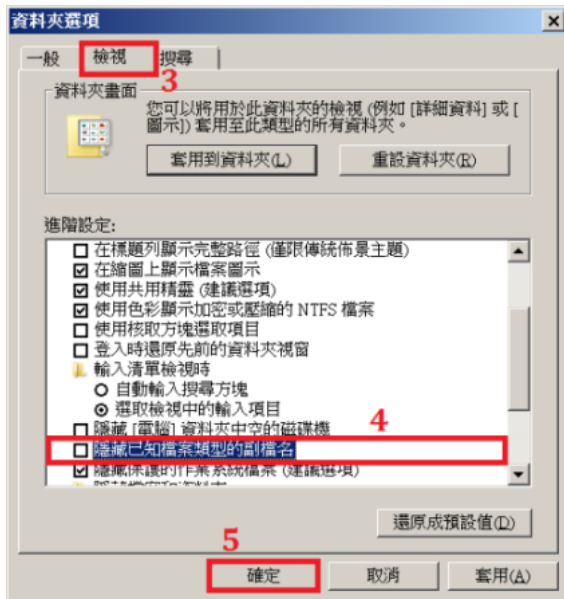
一些設定 (for Windows)

- 組合管理 → 資料夾和搜尋選項



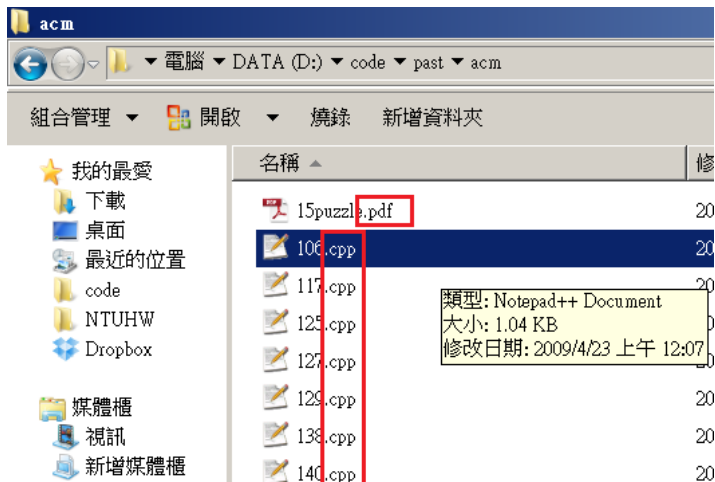
一些設定 (for Windows)

- “檢視” 頁籤
- “隱藏已知檔案類型的檔名” 不要打勾



一些設定 (for Windows)

- 結果

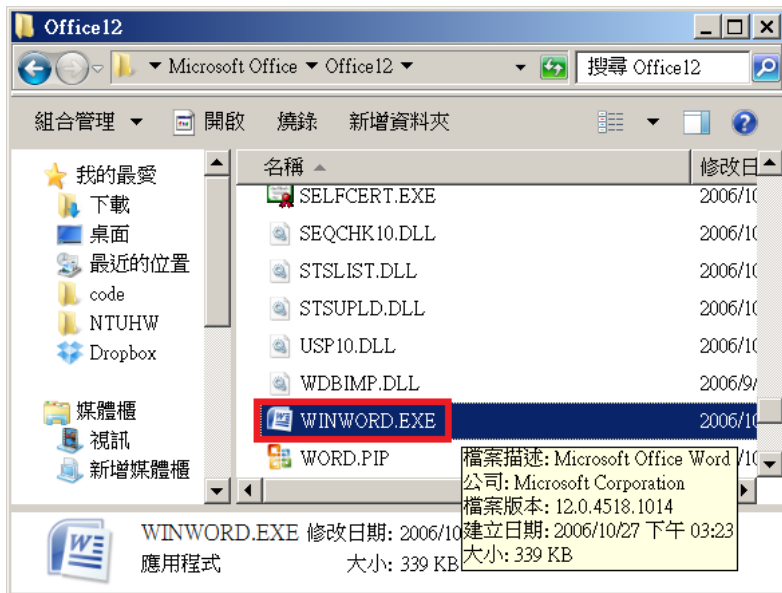


什麼是程式？

-



什麼是程式？



直譯器 (Interpreter)

- The BASIC Interpreter in the Apple II
- 網頁版 <http://www.calormen.com/jsbasic/>

```
HELLO, WORLD!  
  
LIST  
  
10 HOME  
20 INVERSE  
30 PRINT "HELLO, WORLD!"  
40 NORMAL  
50 PRINT CHR$ (7)  
  
■
```

the photo is taken from

http://upload.wikimedia.org/wikipedia/commons/f/fc/Applesoft_BASIC.png

直譯器 (Interpreter)

- C 語言的直譯器 (CINT)



其他語言的直譯器 (Python, Haskell, Scala)

```
C:\Users\suhorng\Desktop\Design Patterns GOF>python
Python 2.7.3 (default, Apr 10 2012, 23:31:26) [MSC v.1500 32 bit (Intel)] on win
32
Type "help", "copyright", "credits" or "license" for more information.
>>> 1+2
3
```

```
C:\Users\suhorng\Desktop\Design Patterns GOF>ghci
GHCi, version 7.4.2: http://www.haskell.org/ghc/ :? for help
Loading package ghc-prim ... linking ... done.
Loading package integer-gmp ... linking ... done.
Loading package base ... linking ... done.
Prelude> [ (a,b,c) | a <- [1..10], b <- [1..a], c <- [1..b], a^2 == b^2+c^2]
[(5,4,3),(10,8,6)]
```

```
ROOT 5.34/12 (v5-34-12@v5-34-12, Nov 19 2013, 21:03:45 on win32)

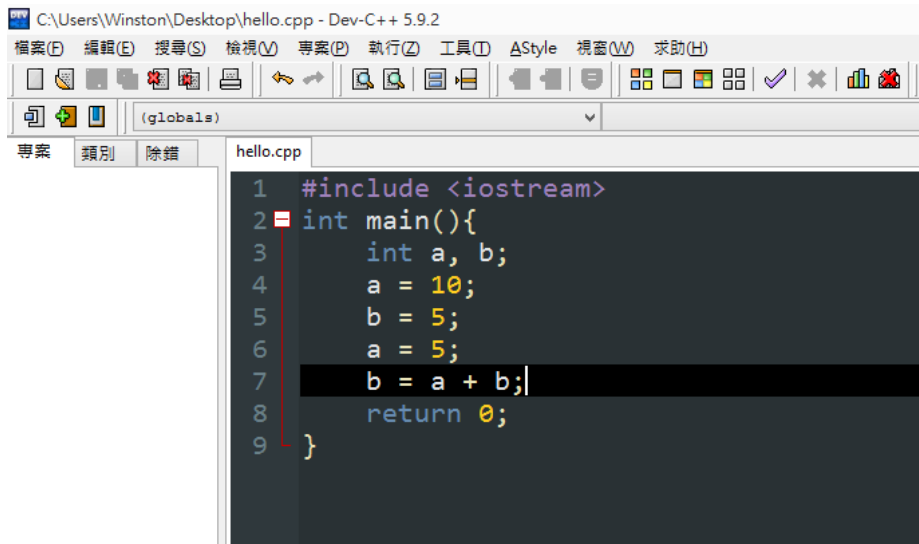
CINT/ROOT C/C++ Interpreter version 5.18.00, July 2, 2010
Type ? for help. Commands must be C++ statements.
Enclose multiple statements between { }.
root [0] int x; x = 5; 1+x*2
(const int)11
```

```
Welcome to Scala version 2.10.1 (Java HotSpot(TM) Client VM, Java 1.7.0_17).
Type in expressions to have them evaluated.
Type :help for more information.

scala> val f = (x:Int) => x*2
f: Int => Int = <function1>
```

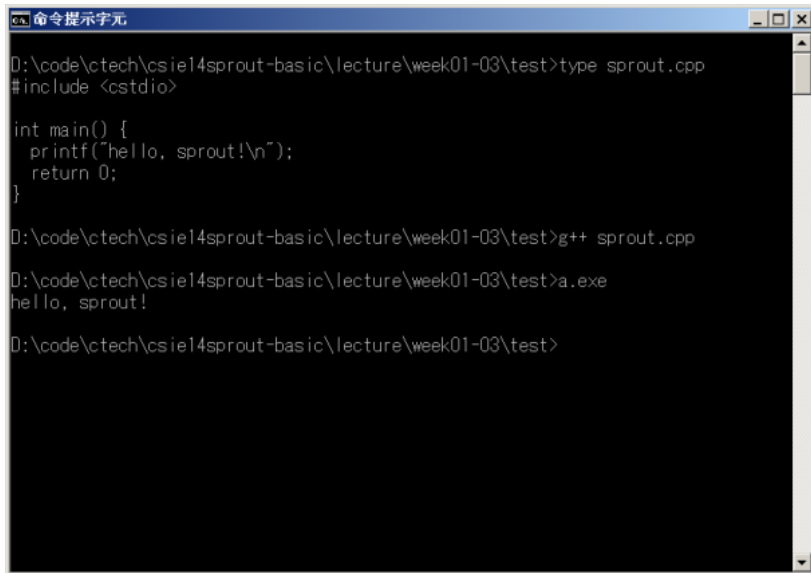
整合開發環境 (IDE)

- Dev-C++, an IDE



整合開發環境 (IDE)

- 使用命令提示介面 command line
- 呼叫 編譯器 (compiler)!



```
命令提示字元
D:\code\ctech\csie14sprout-basic\lecture\week01-03\test>type sprout.cpp
#include <stdio>

int main() {
    printf("hello, sprout!\n");
    return 0;
}

D:\code\ctech\csie14sprout-basic\lecture\week01-03\test>g++ sprout.cpp

D:\code\ctech\csie14sprout-basic\lecture\week01-03\test>a.exe
hello, sprout!

D:\code\ctech\csie14sprout-basic\lecture\week01-03\test>
```

程式是如何執行的？

- 由上而下...
 - 作業系統 (Operating System)
 - 中央處理器 (CPU), 記憶體 (Memory), 儲存裝置 (Storage System), 輸入/輸出介面 (I/O interface) ...