

Lex & Yacc on Cygwin Install Guide

The title text is centered and overlaid on a decorative arrangement of five circles. Two circles are solid light purple, and three are hollow with a light purple outline. The circles are arranged in two rows: the top row has three circles and the bottom row has two circles.

Download cygwin

<http://www.cygwin.com/>

The screenshot shows the Cygwin website homepage. At the top, there is a navigation bar with the Cygwin logo and the text "GNU + Cygnus + Windows = cygwin". Below the logo, it says "Cygwin 1.7.4 just released!". The main content area includes a "What Is Cygwin?" section, a "What Isn't Cygwin?" section, and a section for "Installing and Updating Cygwin and Its Packages". A red circle highlights the "Install or update now" button, which is linked to "using setup.exe". A blue arrow points from a text box at the bottom to this button.

GNU + Cygnus + Windows = cygwin

Cygwin 1.7.4 just released!

Please note that the **update** from Cygwin 1.5.x to Cygwin 1.7.x might require some **manual changes** afterwards. Most notably the mount point storage has been moved out of the registry into files. User mount points are **NOT** copied into the new user-specific `/etc/fstab.d/$USER` file. Rather, every user has to call the `/bin/copy-user-registry-fstab` shell script once after the update. **PLEASE** read the new [User's Guide](#) before upgrading your Cygwin installation to 1.7. You're avoiding trouble.

What Is Cygwin?

Cygwin is a Linux-like environment for Windows. It consists of two parts:

- A DLL (cygwin1.dll) which acts as a Linux API emulation layer providing substantial Linux API functionality.
- A collection of tools which provide Linux look and feel.

The Cygwin DLL currently works with all recent, commercially released x86 32 bit and 64 bit versions of Windows, with the exception of Windows CE.

Note that the official support for Windows 95, Windows 98, and Windows Me has been discontinued with the latest Cygwin major release 1.7. For users who are still running one of these legacy versions of Windows, see [below](#).

What Isn't Cygwin?

- Cygwin is **not** a way to run native linux apps on Windows. You have to rebuild your application *from source* if you want it to run on Windows.
- Cygwin is **not** a way to magically make native Windows apps aware of UNIX @functionality, like signals, pids, etc. Again, you need to build your apps *from source* if you want to take advantage of Cygwin functionality.

[Help, contact, web page, other info...](#)

Install or update now
(using setup.exe)

or [get help on using setup.exe](#) or [find where a package or file lives in the Cygwin release](#).

Latest Cygwin DLL release version is **1.7.4.1**

Installing and Updating Cygwin and Its Packages

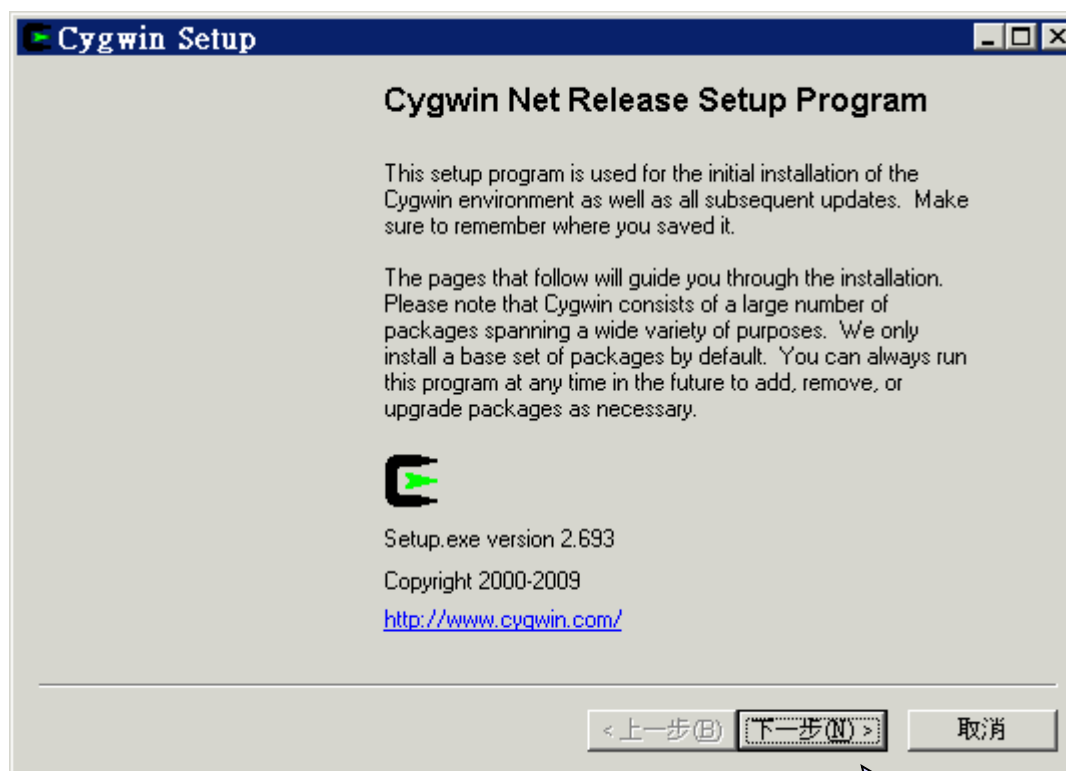
Run [setup.exe](#) any time you want to update or install a Cygwin package. The [signature](#) for [setup.exe](#) can be used to verify the validity of this binary using [this](#) public key.

When installing packages for the first time, [setup.exe](#) does not install every package. Only the **minimal base packages** from the Cygwin distribution are installed by default. Clicking on categories and packages in the [setup.exe](#) package installation screen will provide you with the opportunity to install every Cygwin package. Be advised that you can download and install hundreds of megabytes to your computer. The best plan is probably to click on individual categories and install either entire categories or packages from the categories themselves.

The latest net releases of the Cygwin DLL are numbered *f.n.x*, where *f* is the version number (e.g., 1.7.4). The *f.n.x* version numbering refers only to the Cygwin DLL. Individual packages like `bash`, `gcc`, `less`, etc. are released independently of the DLL. The [setup.exe](#) utility will install all installed components and provides the mechanism for **installing** or **updating** everything available from this site for Cygwin.

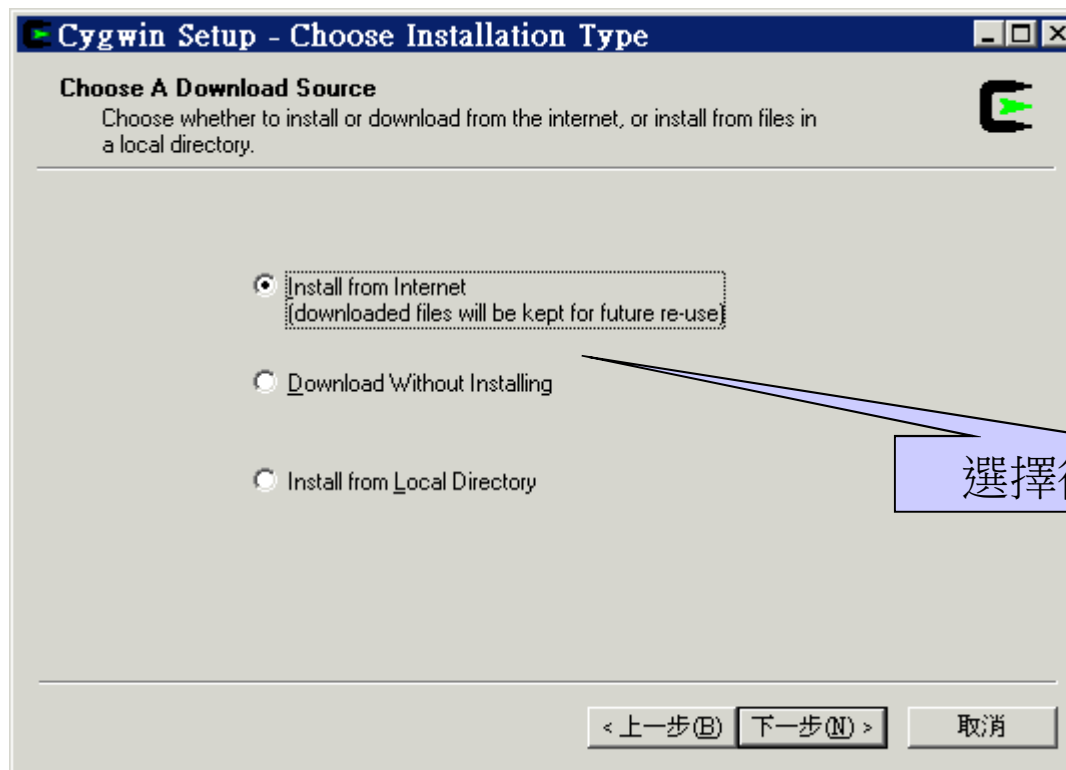
點這邊下載

Step 1



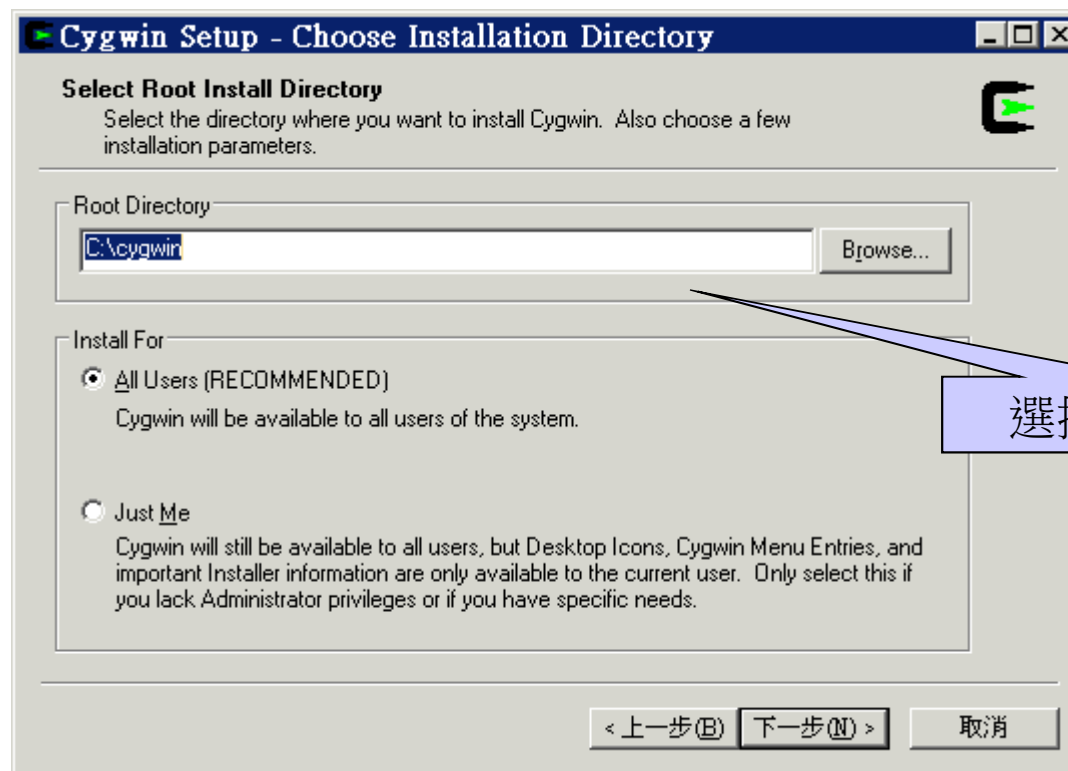
下一步

Step 2



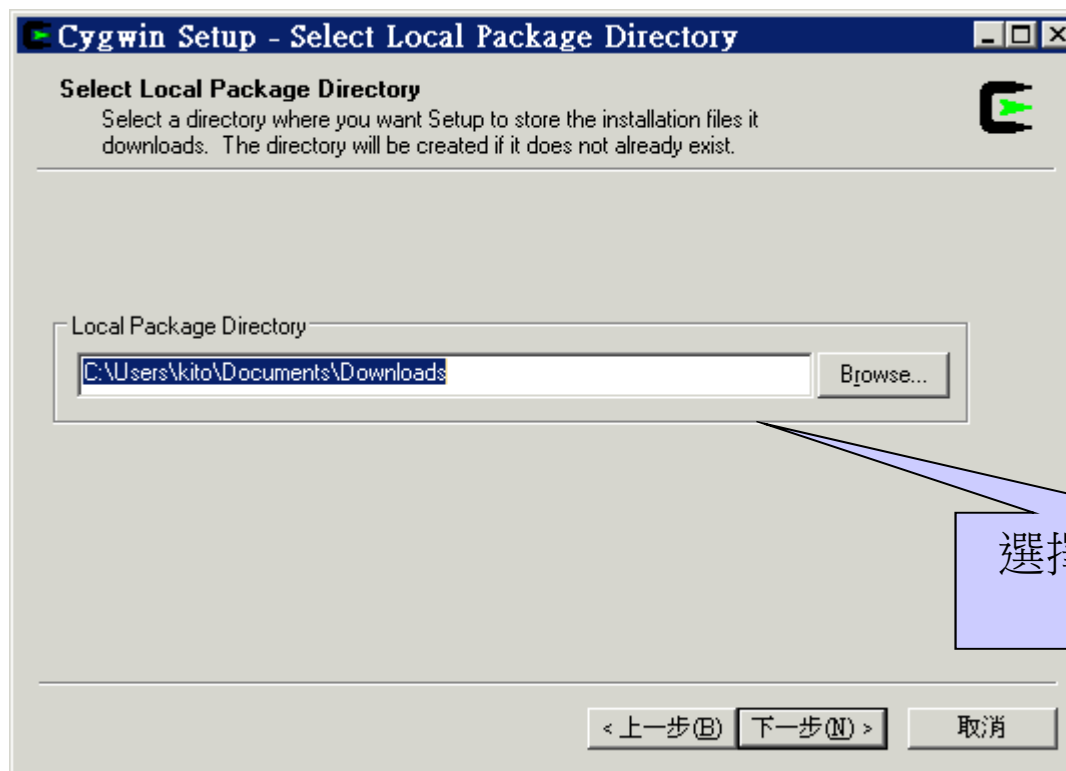
選擇從網路安裝

Step 3



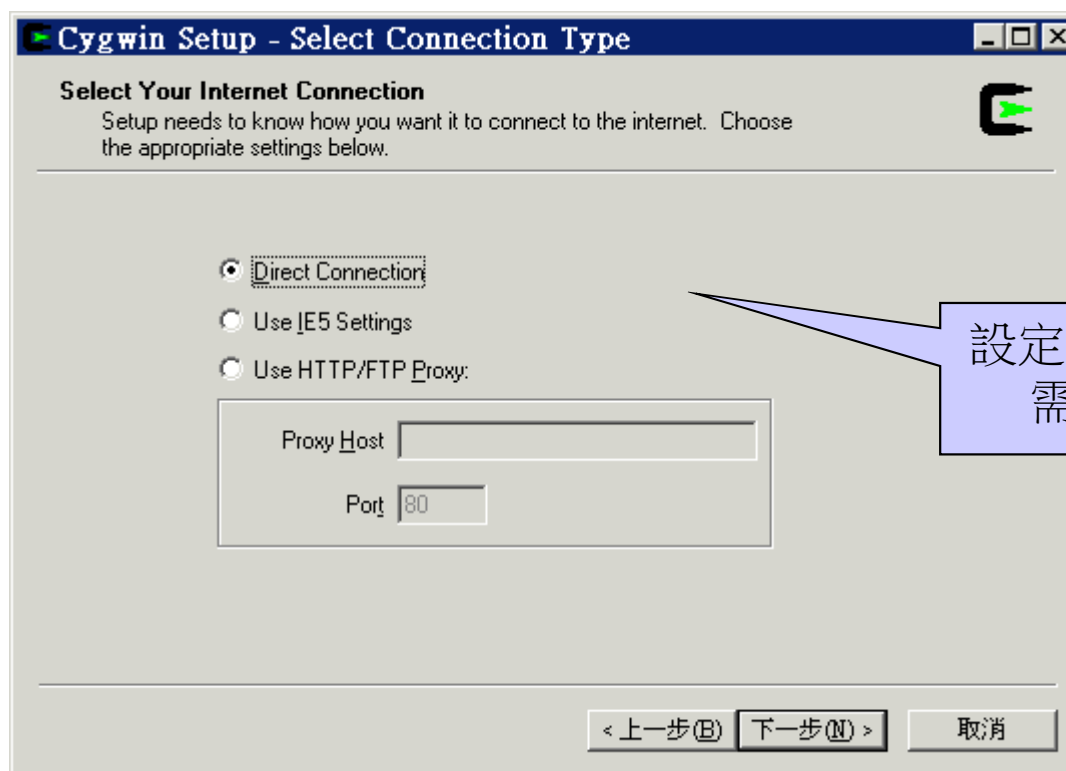
選擇安裝的路徑

Step 4



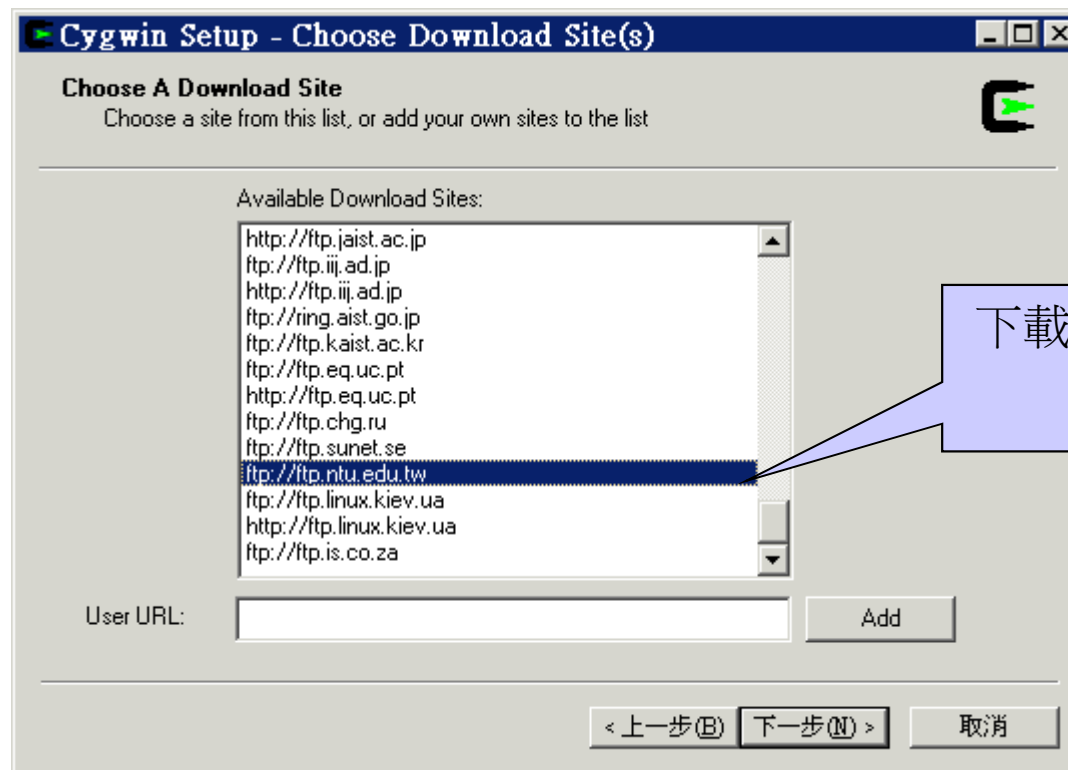
選擇下載暫存檔的
存放位置

Step 5



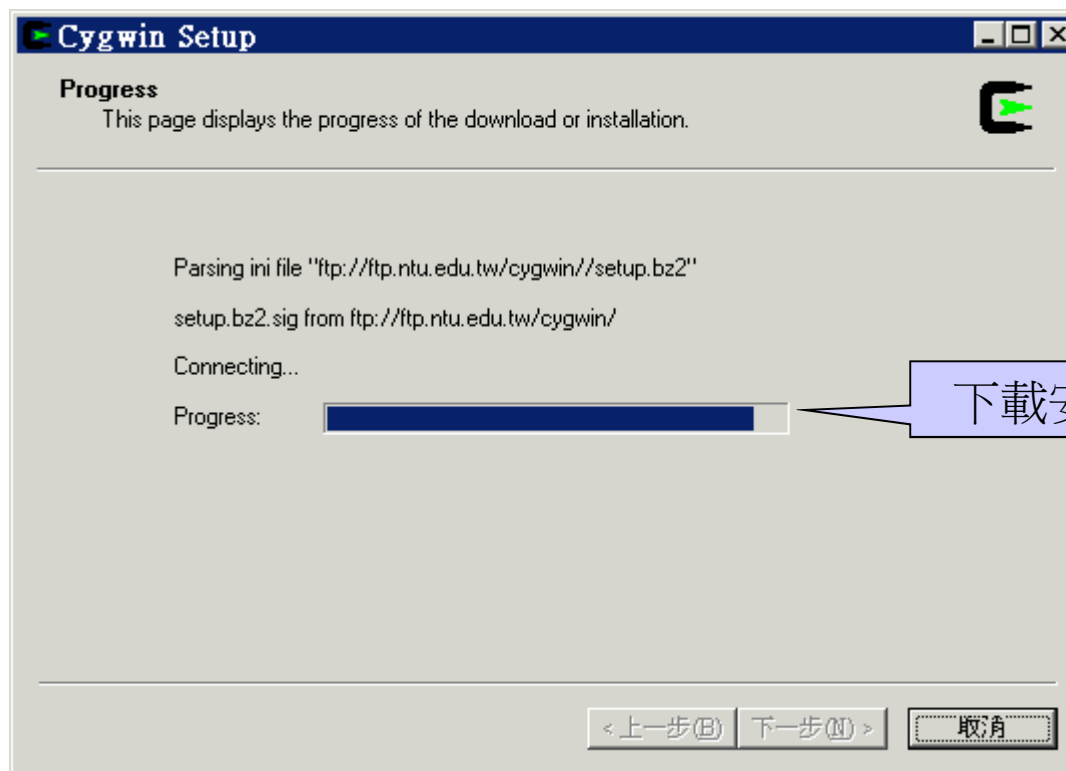
設定Proxy，沒特別
需要不需更動

Step 6



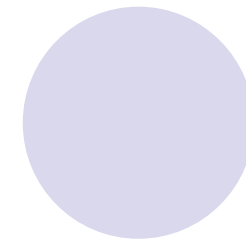
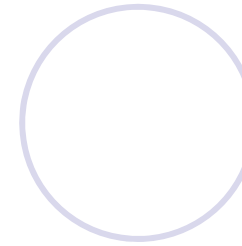
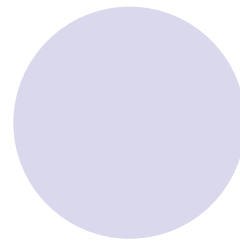
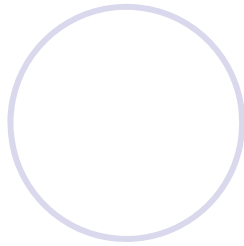
下載來源，選擇ntu
會快很多

Step 7



下載安裝資訊中...

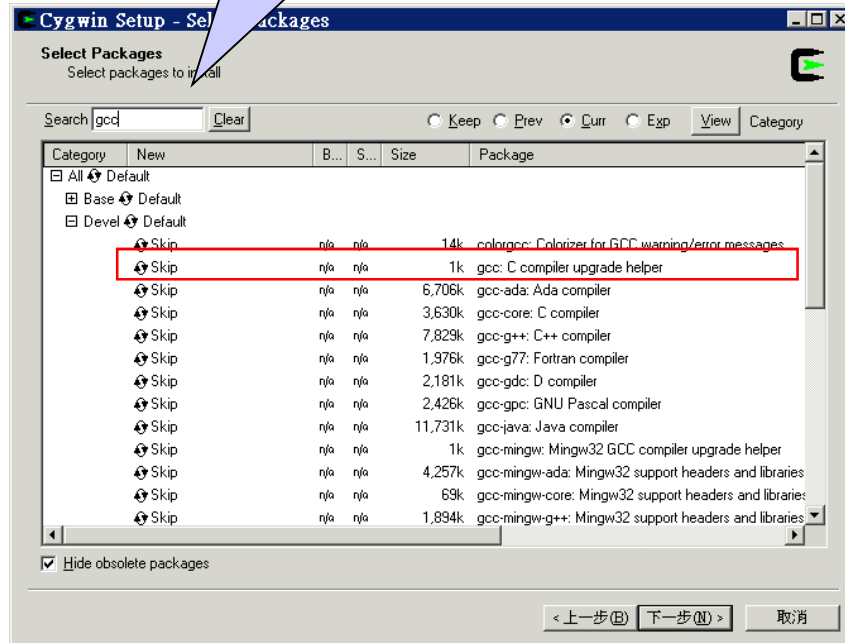
Step 8



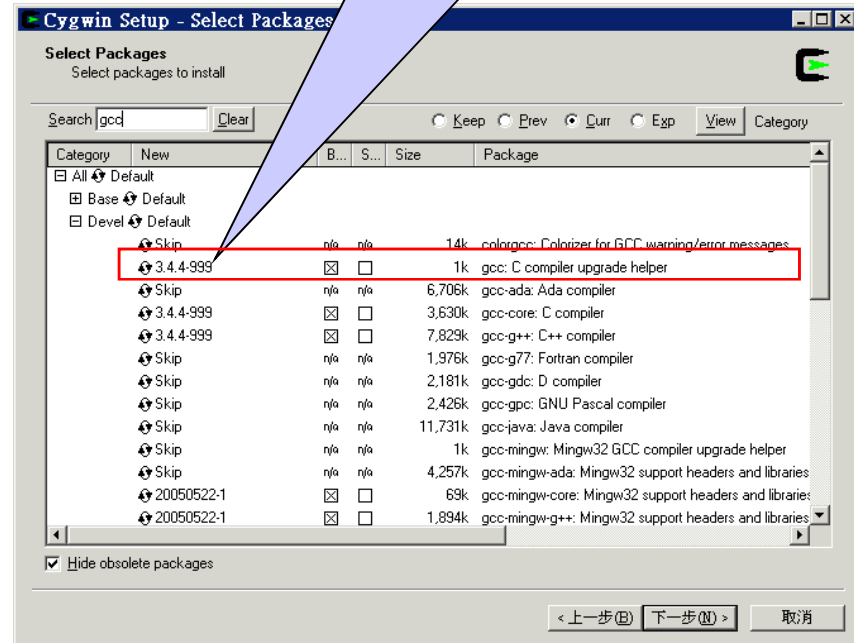
以前沒裝過cygwin
可以直接跳過

Step 9

在這邊打上gcc

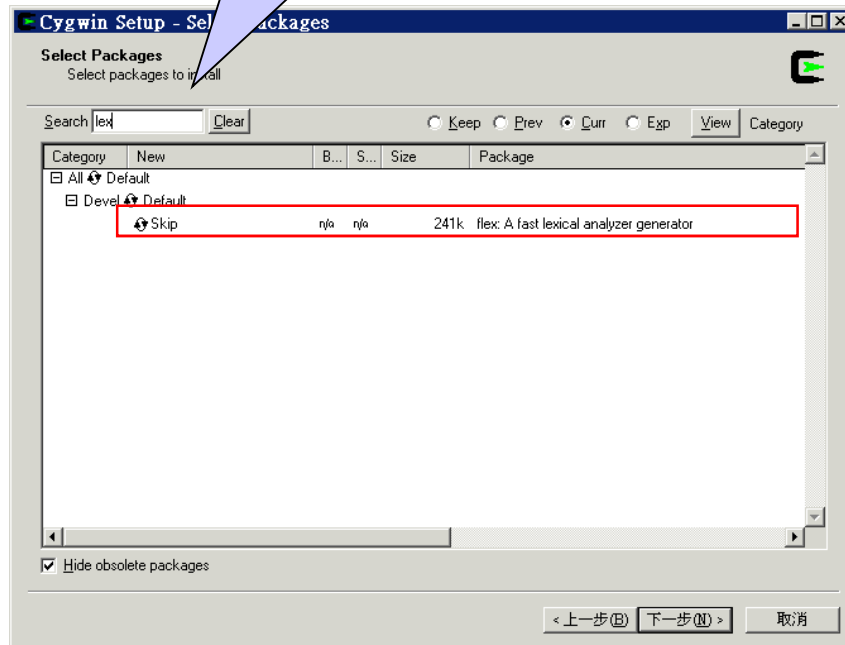


點一下skip讓它變成一串數字

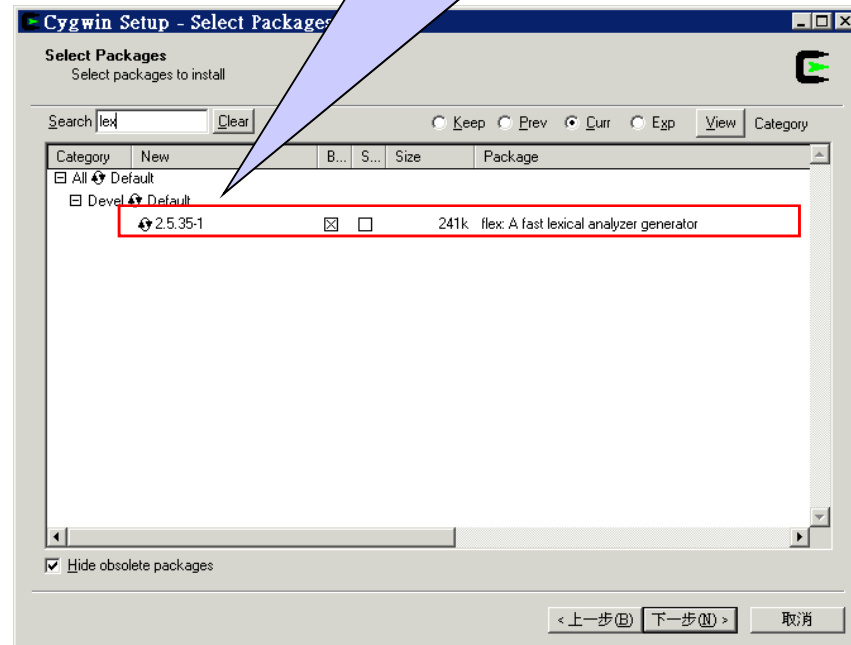


Step 10

輸入lex



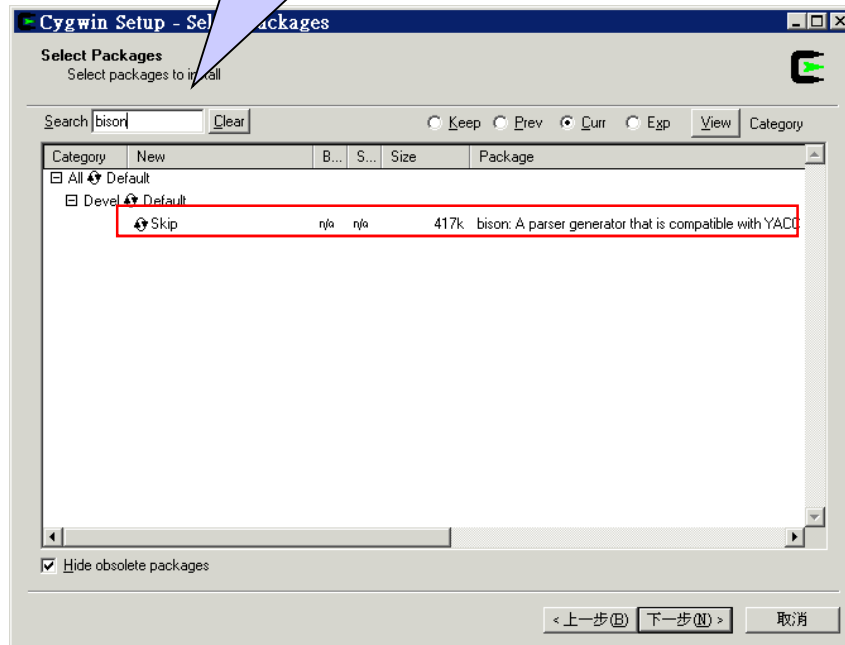
點一下skip讓它變成一串數字



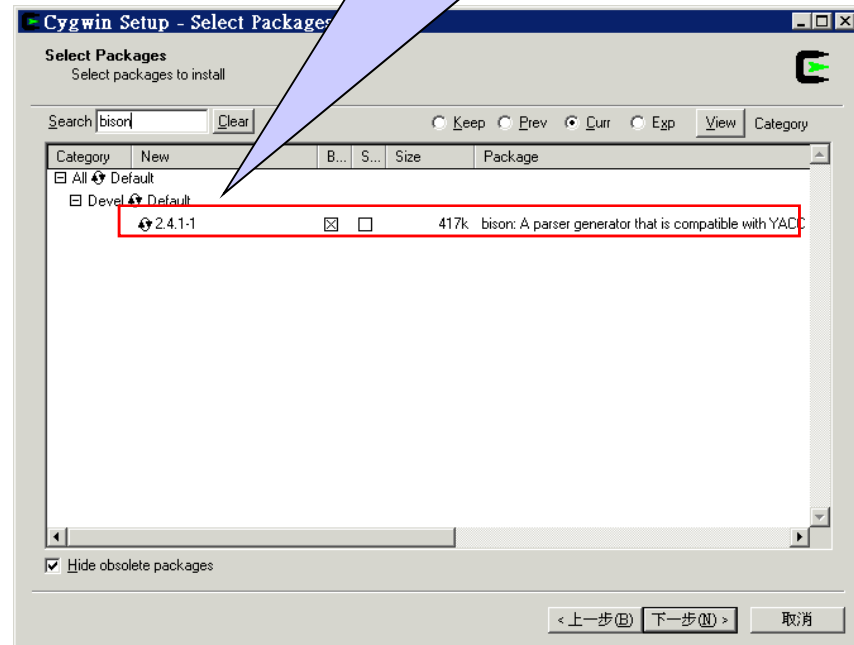
註：flex為GNU版本的lex

Step 11

輸入bison



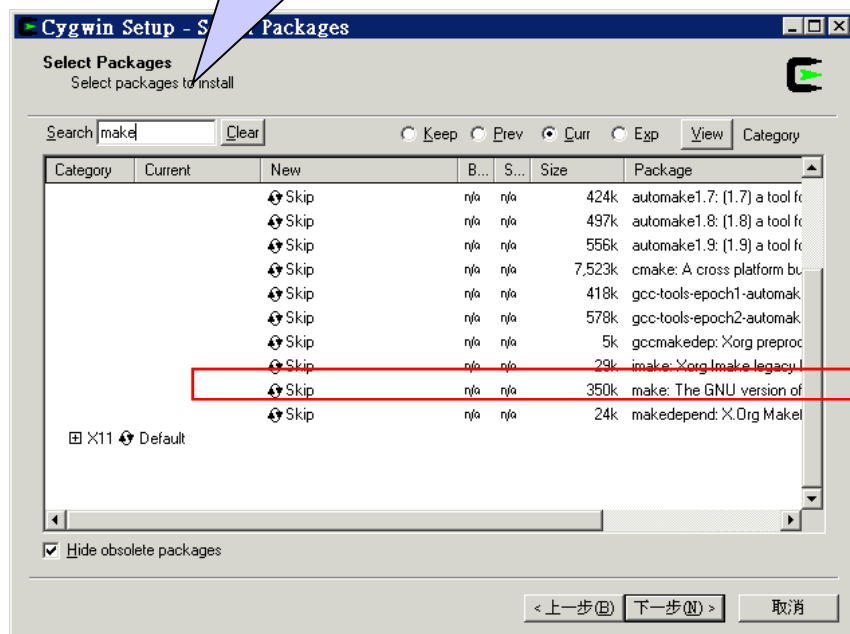
點一下skip讓它變成一串數字



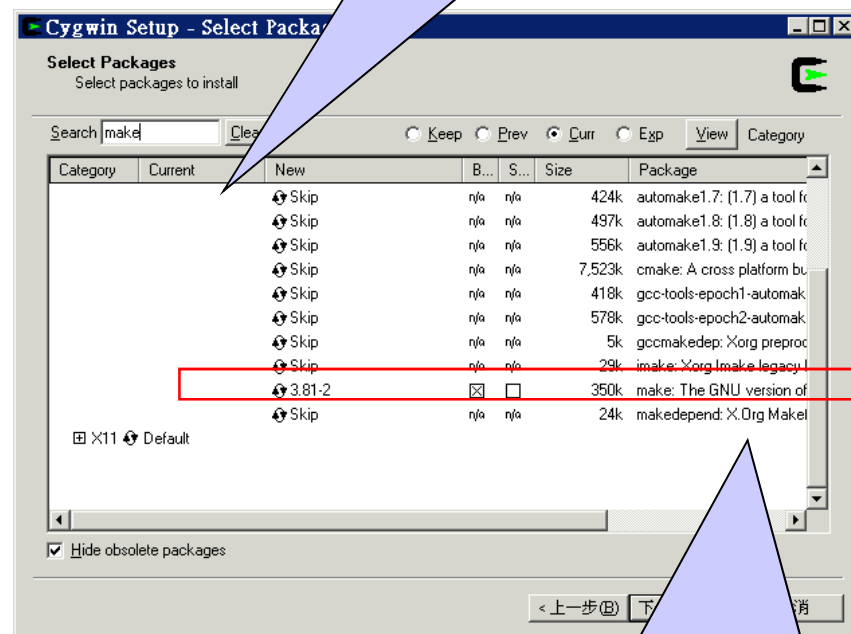
註：bison為GNU版本的yacc

Step 12

輸入make

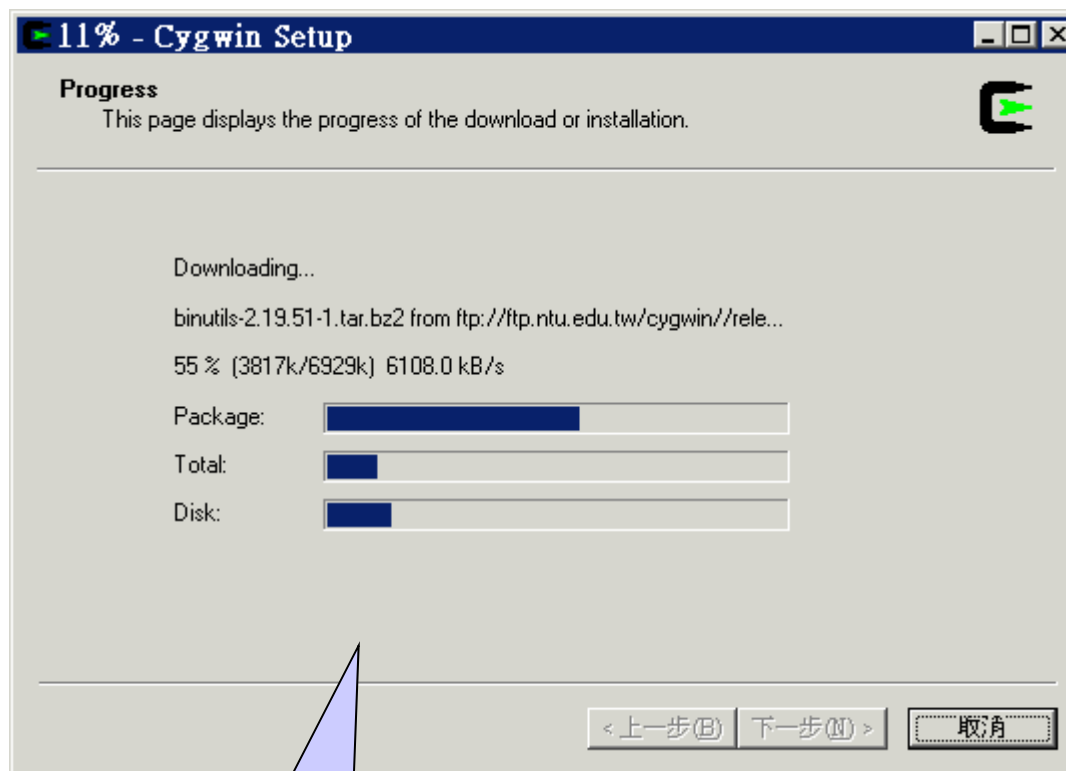


點一下skip讓它變成一串數字



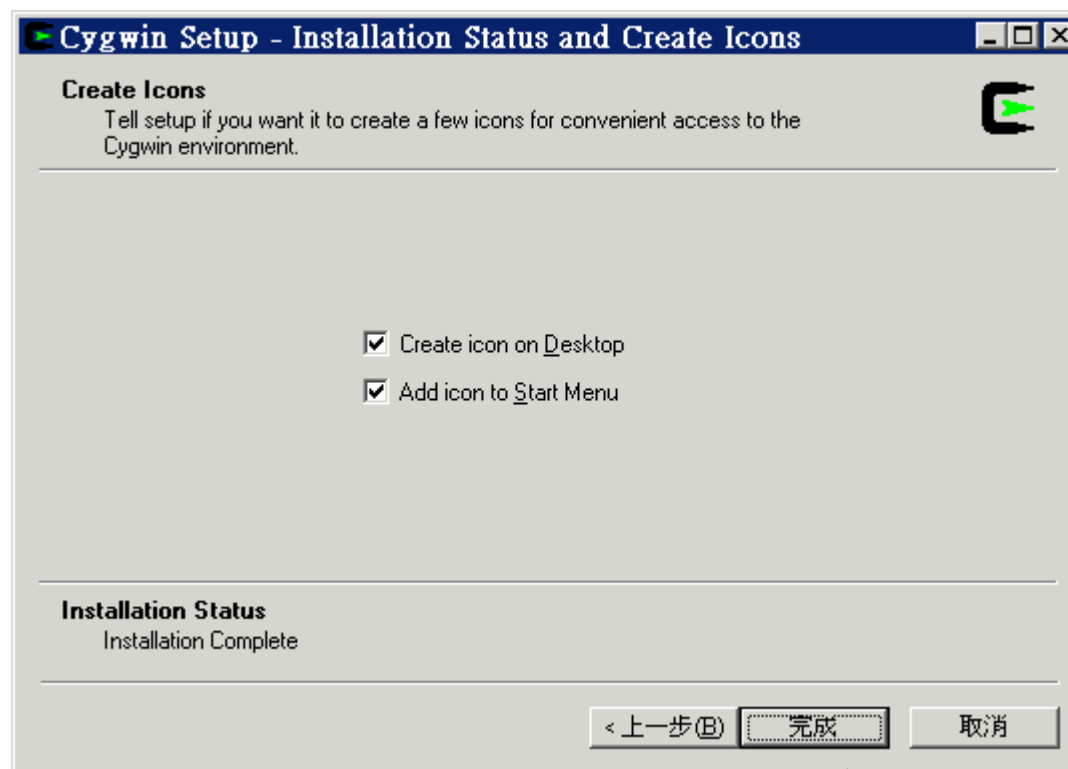
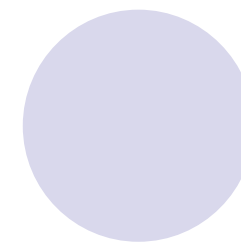
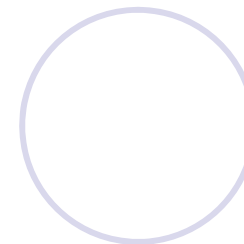
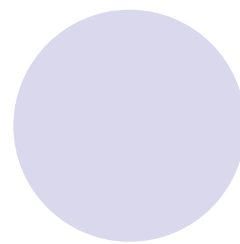
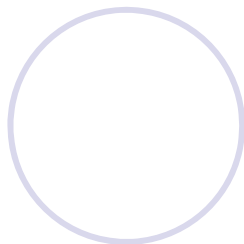
make : The Gnu version ...

Step 13



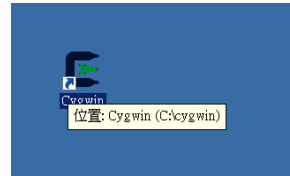
等待下載安裝...

Step 14



完成!

測試cygwin



點擊開啟cygwin

確認gcc

輸入gcc -v
確認安裝是否成功

```
kito@WIN2K8R2-HPCLab ~  
$ gcc -v  
Using built-in specs.  
Target: i686-pc-cygwin  
Configured with: /gnu/gcc/releases/4.3.4-3/gcc4-4.3.4-3/src/gcc-4.3.4/  
configure --srcdir=/gnu/gcc/releases/4.3.4-3/gcc4-4.3.4-3/src/gcc-4.3.  
4 --prefix=/usr --exec-prefix=/usr --bindir=/usr/bin --shlibdir=/usr/shlib  
ecdir=/usr/lib --datadir=/usr/share --localstatedir=/var --sysconfdir=/etc --inf  
odir=/usr/share/info --mandir=/usr/share/man --datadir=/usr/share --infodir=/usr  
/share/info --mandir=/usr/share/man -v --with-gmp=/usr --with-mpfr=/usr --enable  
-bootstrap --enable-version-specific-runtime-libs --with-slibdir=/usr/bin --libe  
xecdir=/usr/lib --enable-static --enable-shared --enable-shared-libgcc --disable  
-__cxa_atexit --with-gnu-ld --with-gnu-as --with-dwarf2 --disable-sjlj-exception  
s --enable-languages=ada,c,c++,fortran,java,objc,obj-c++ --disable-symvers --ena  
ble-libjava --program-suffix=-4 --enable-libgomp --enable-libssp --enable-libada  
--enable-threads=posix --with-arch=i686 --with-tune=generic --enable-libgcj-sub  
libs CC=gcc-4 CXX=g++-4 CC_FOR_TARGET=gcc-4 CXX_FOR_TARGET=g++-4 GNATMAKE_FOR_TA  
RGET=gnatmake GNATBIND_FOR_TARGET=gnatbind AS=/opt/gcc-tools/bin/as.exe AS_FOR_T  
ARGET=/opt/gcc-tools/bin/as.exe LD=/opt/gcc-tools/bin/ld.exe LD_FOR_TARGET=/opt/  
gcc-tools/bin/ld.exe --with-ecj-jar=/usr/share/java/ecj.jar  
Thread model: posix  
gcc version 4.3.4 20090804 (release) 1 (GCC)  
kito@WIN2K8R2-HPCLab ~  
$
```

確認flex

輸入flex --help
確認安裝是否成功

```
kito@WIN2K8R2-HPCLab ~  
$ flex --help  
Usage: flex [OPTIONS] [FILE]...  
Generates programs that perform pattern-matching on text.  
  
Table Compression:  
-Ca, --align      trade off larger tables for better memory alignment  
-Ce, --ecs        construct equivalence classes  
-Cf               do not compress tables; use -f representation  
-CF               do not compress tables; use -F representation  
-Cm, --meta-ecs  construct meta-equivalence classes  
-Cr, --read       use read() instead of stdio for scanner input  
-f, --full        generate fast, large scanner. Same as -Cfr  
-F, --fast        use alternate table representation. Same as -CFr  
-Cem              default compression (same as --ecs --meta-ecs)  
  
Debugging:  
-d, --debug       enable debug mode in scanner  
-b, --backup      write backing-up information to lex.backup  
-p, --perf-report write performance report to stderr  
-s, --nodefault   suppress default rule to ECHO unmatched text  
-T, --trace       flex should run in trace mode  
-w, --nowarn      do not generate warnings  
-v, --verbose     write summary of scanner statistics to stdout
```

確認bison

輸入bison --help
確認安裝是否成功

```
kito@WIN2K8R2-HPCLab ~
$ bison --help
Usage: bison [OPTION]... FILE
Generate LALR(1) and GLR parsers.

Mandatory arguments to long options are mandatory for short options too.
The same is true for optional arguments.

Operation modes:
  -h, --help                display this help and exit
  -U, --version              output version information and exit
      --print-locale-dir    output directory containing locale-dependent data
      --print-datadir       output directory containing skeletons and XSLT
  -y, --yacc                 emulate POSIX Yacc
  -W, --warnings=[CATEGORY] report the warnings falling in CATEGORY

Parser:
  -L, --language=LANGUAGE   specify the output programming language
                             (this is an experimental feature)
  -S, --skeleton=FILE        specify the skeleton to use
  -t, --debug                instrument the parser for debugging
      --locations            enable locations computation
  -p, --name-prefix=PREFIX  prepend PREFIX to the external symbols
  -l, --no-lines             don't generate '#line' directives
  -k, --token-table          include a table of token names
```

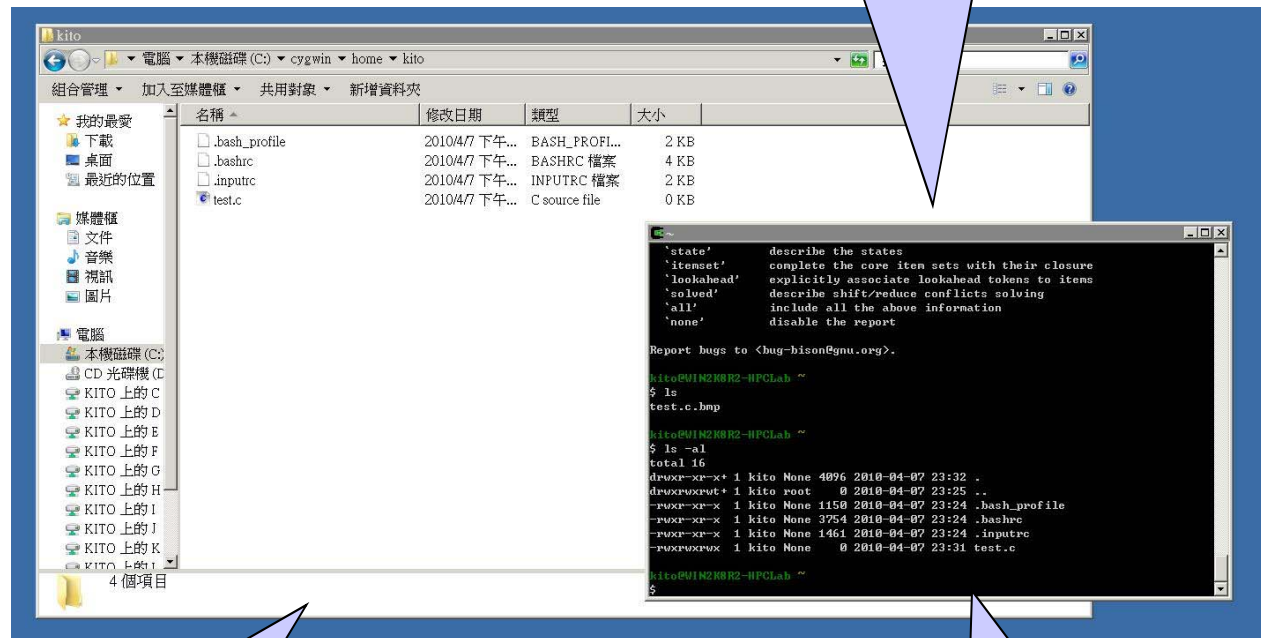
確認make

輸入make
確認安裝是否成功

```
kito@WIN2K8R2-HPCLab ~  
$ make  
make: *** No targets specified and no makefile found. Stop.  
  
kito@WIN2K8R2-HPCLab ~  
$ -
```

Cygwin簡介

若需要安裝其他套
件可依照前面步驟
方法安裝



安裝目錄下的
home/user為
cygwin的預設目錄

Cygwin的指令與
linux相同，相關指
令可至鳥哥查詢