

# How to Install the GNU C compiler and DISLIN Plotting Package on Windows

## MinGW Compiler

1. Download the compiler, either from the original host or from this URL:

<http://biomath.biology.usu.edu/Links/Links.html>

Save the file `MinGW-2.0.0-3.exe` to your desktop or a temporary folder.

2. The `exe` file is a self-expanding file, so simply double-click to start the installation. Accept all the defaults.
3. Modify your path in `autoexec.bat` so that the compiler can be found. See below

## DISLIN Graphing Package

1. DISLIN is a library of plotting and graphing functions that can be called from a C or Fortran program. It is supplied in many forms for many different compilers. It is free if the compiler is free; otherwise you have to pay. We use a free version, of course. Download the version for the MinGW compiler from the original source or from:

<http://biomath.biology.usu.edu/Links/Links.html>

Save the file `dl_80_mg.zip` to a temporary folder. Unzip the zip file.

2. Install by running (double click) `setup.exe`. Install Dislin in `c:\dislinMinGW`

## Setting System Variables

To be able compile and link the plotting routines, you must tell the system where everything is located.

1. Use Notepad or any text editor and edit your system file `c:\autoexec.bat` First copy your original `autoexec.bat` to `autoexec-ORG.bat`, so you can recover it in case of a disaster.
2. At the end of the file, add the following to whatever is in `autoexec.bat`:

```
SET DISLIN=C:\dislinMinGW
SET MINGW32=C:\MinGW
SET MINGW=C:\MinGW
PATH = .;c:\Program Files\Common Files;c:\dislinMinGW\win;c:\MinGW\bin;%PA
```

This assumes you put the compiler in `C:\MinGW` and the plotting routines in `C:\dislinMinGW`. If you put them somewhere else, then make the appropriate substitutions.

## Test the Compiler

1. Use a text editor (Notepad) to create the following file

```
#include <stdio.h>
int main()
{
    printf("Hello World\n");
    return 0;
}
```

Save it to your working directory as `hello.c`, or something of your choice.

2. Start a DOS commandline window: Go to the Windows Start menu (lower left corner), click on Run and in the text input field type: `cmd.exe /K C:\autoexec.bat`
3. In the resulting DOS commandline window, change to the directory that has the `hello.c` file stored:

```
cd C:\c or wherever you saved it.
```

4. Compile the program:

```
gcc -o hello.exe hello.c
```

After compiling and linking is complete you should see 2 new files in your directory: `hello.o` and `hello.exe`. The latter is executeable file. If you type `hello.exe` on the command line, it will execute and print "Hello World" on the screen.