# Using Microsoft Visual C++ .NET or version 9.0

1. Find an unprotected place (on your own computer, that could be anywhere; on a lab computer find out by experiment: if you can't create a folder in the place you've selected, find another place) and create a new folder in it. This folder will represent the whole programming project you are about to start, so I'll call it "My Project Name" as a reminder; you can call it anything you like.

    Open that new folder, and you will find another folder inside it with the same name as the name you named your project. This will hold all the important files for the project. You can call it anything you like.

    Go to the web page for this class, and download the two files library.h and library.obj into the newly created "files" subfolder. Remember to download the files by right-clicking on their links and selecting "Save Target As" or "Save Link As"; do not click the links in the normal way.

    This is what you should have:
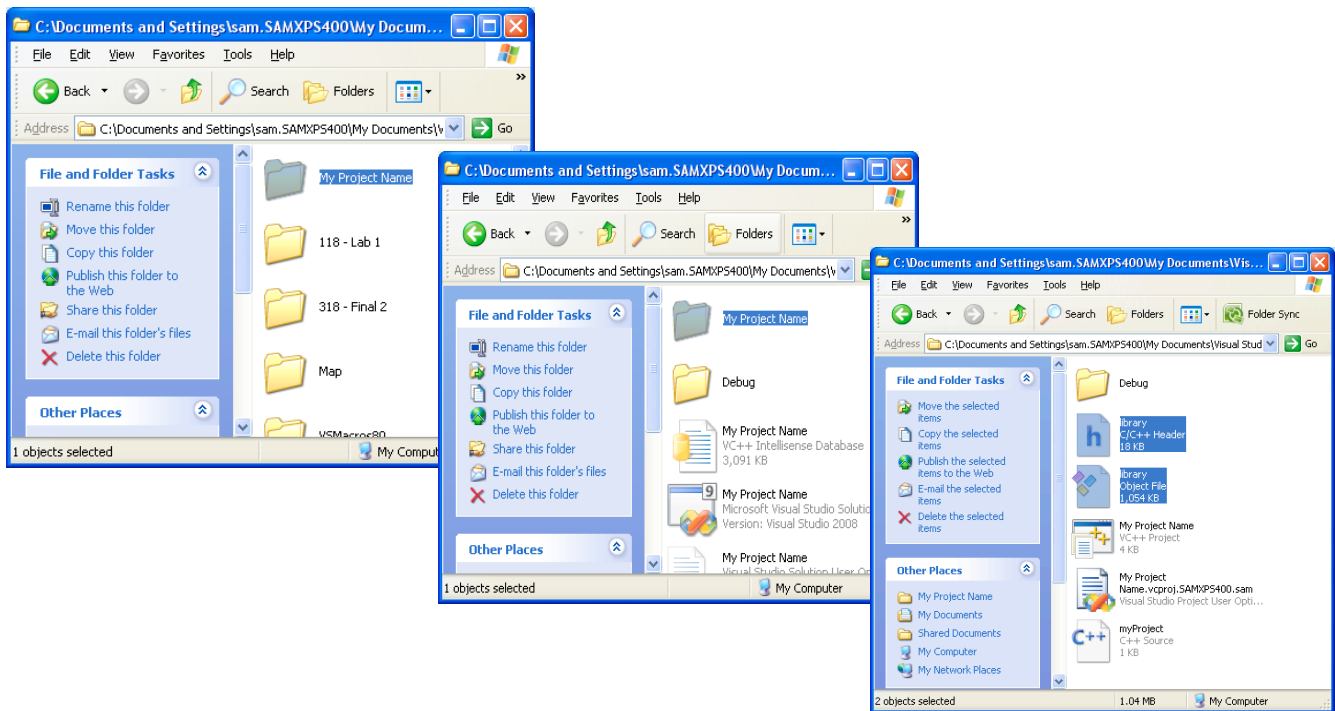
2. Start the visual C++ application using the programs menu from the start button

    If what you get looks like this:
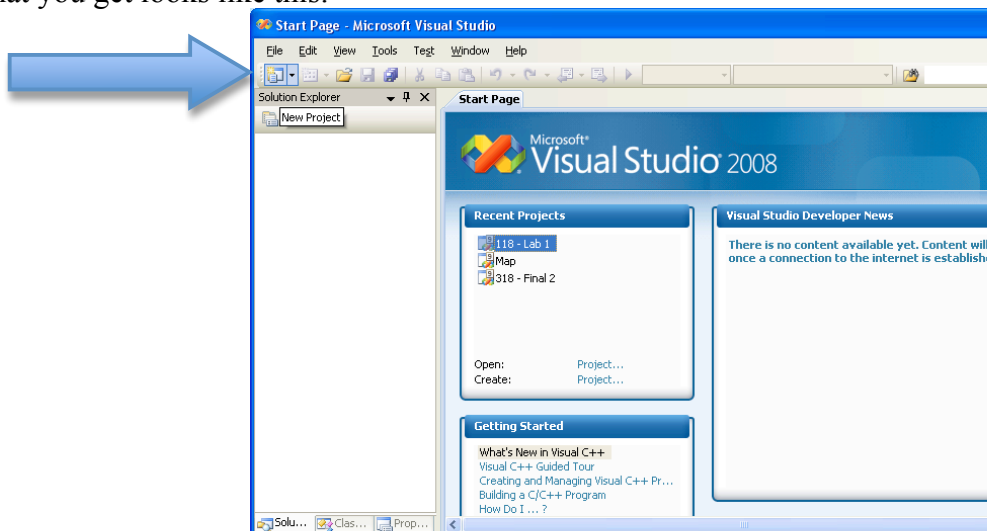
Click the "new project" button

3. 1. Open up the "Visual C++ Projects" group (a plus sign in a box) if it isn't already open
   2. Select "Win32" in the list that appears
   3. Select "Win32 Project" from the icons that appear to the right.
   4. In the "Location" box, enter the full path for the "Project" folder
   5. In the "Name" box, enter the name of the "files" folder.
       You should have something looking like this:
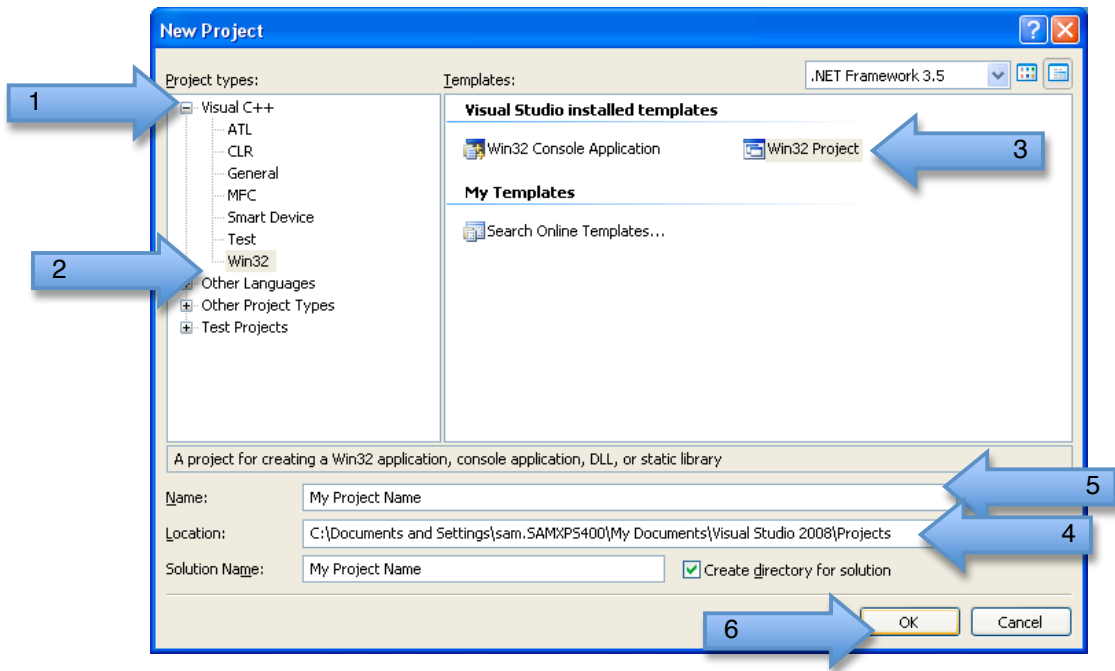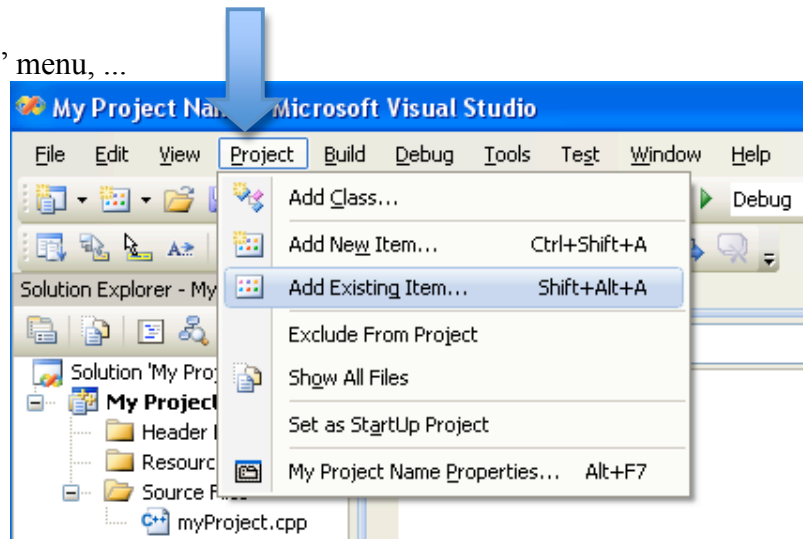

   6. Press the OK button.

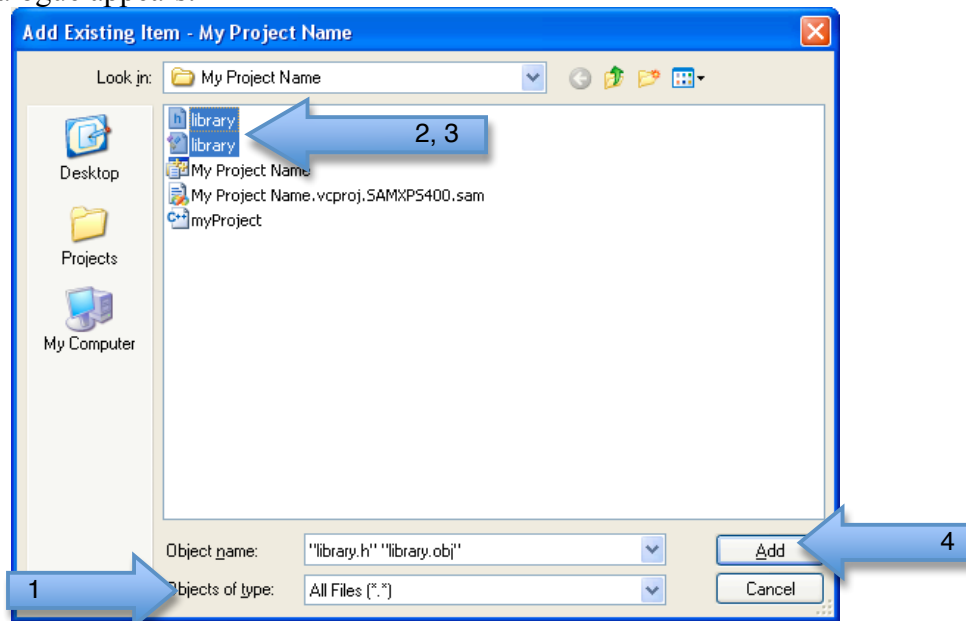4. Now you'll get this unnecessary annoyance:
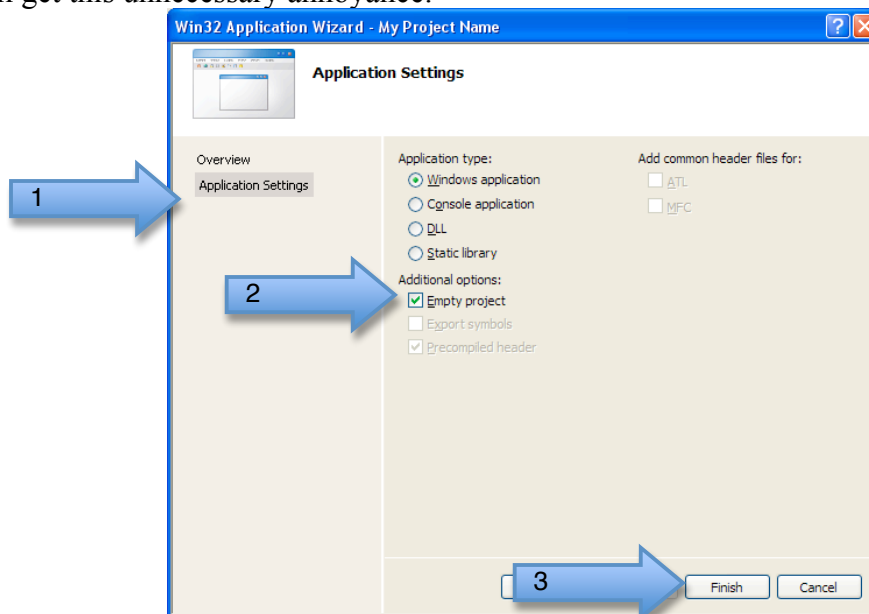
   1. Select the "Application Settings" tab
   2. Tick the "Empty Project" box. Important; you'll get a nasty mess to delete of you forget this step.
   3. Click "Finish"

5. Under the "Project" menu, ...

... select "Add **Existing** Item..."

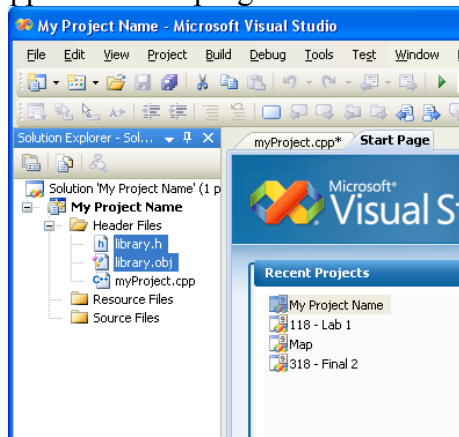6. A file selection dialogue appears:
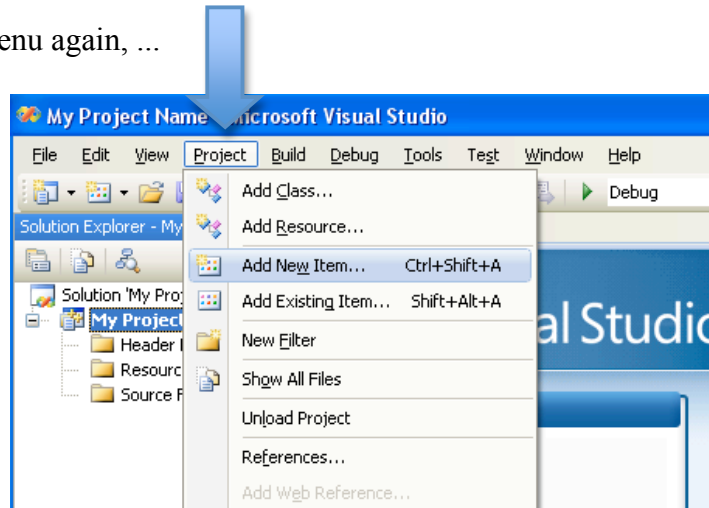

1. Under "Objects of type" select "All files"
2. Select both of the files you downloaded (library.h and library.obj): first click on one of the files, ...
3. ... then control-click on the other one (click while holding down the ctrl key); they should both be highlight at the same time.
4. Click "Add"

7. You should see the files' names appear in the top right sub-window:
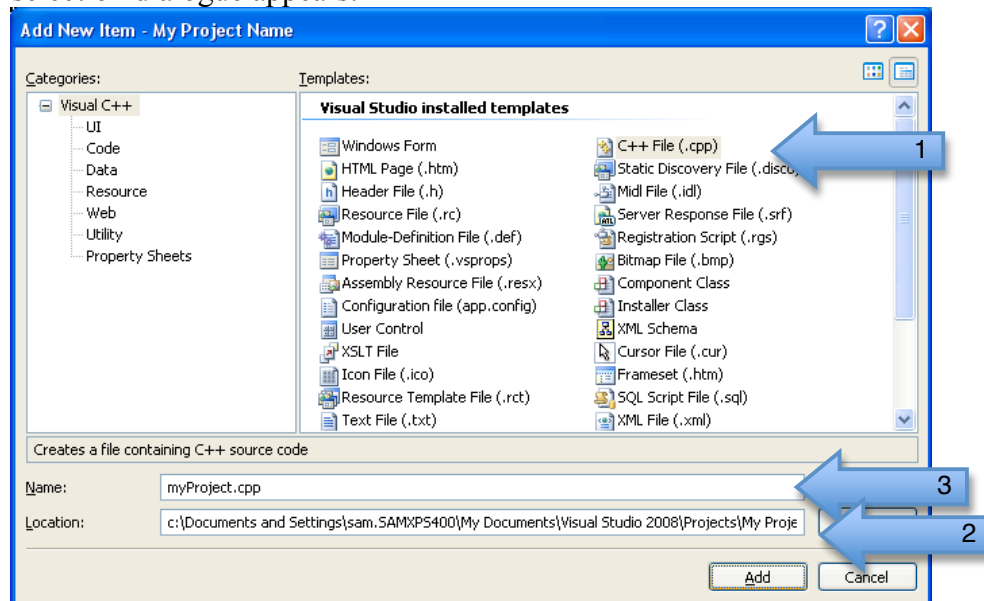

8. Under the "Project" menu again, ...

... select "Add **New** Item..."

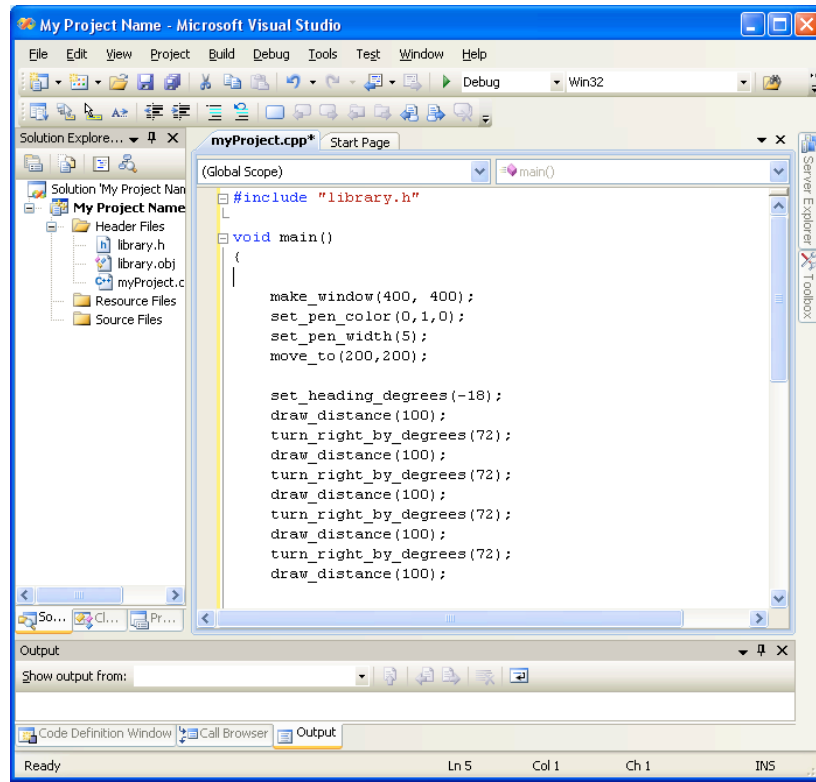9. A type-of-item selection dialogue appears:
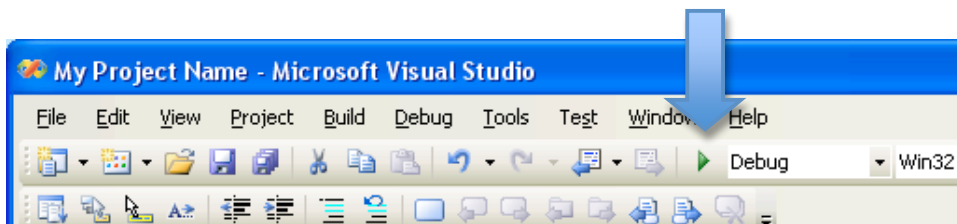

    1. Click on the icon for "C++ file"
    2. Check that the location still shows the files directory whither you downloaded the two other files.

3. Pick a good name for the program file, I chose "myProject.cpp".
4. Click the "Add" button

10. Type your program in the big white area that suddenly appears:

```
#include "library.h"

void main()
{

    make_window(400, 400);
    set_pen_color(0,1,0);
    set_pen_width(5);
    move_to(200,200);

    set_heading_degrees(-18);
    draw_distance(100);
    turn_right_by_degrees(72);
    draw_distance(100);
    turn_right_by_degrees(72);
    draw_distance(100);
    turn_right_by_degrees(72);
    draw_distance(100);
    turn_right_by_degrees(72);
    draw_distance(100);
```

11. Click the tiny tiny triangle that somehow you are supposed to know means "run":

12. If it pops up, answer the foolish question:

Microsoft Development Environment

These project configuration(s) are out of date:

    files - Debug Win32

Would you like to build them?

[Yes]   [No]   [Cancel]   [Help]

(what it's asking is "do you want to run this program?" - this may have already been disabled)

13. If there is something wrong with your program, you will see a warning like this:
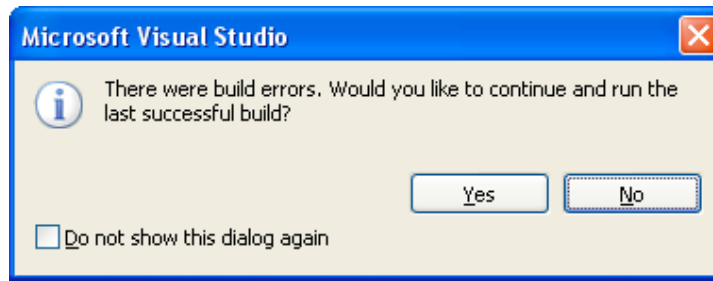
You should click "No", fix your program, and try again from step 11. Do not be tempted to say "Yes"; it will not run your incorrect program, it will just run the last version of your program that didn't have any mistakes in it. It will do you no good at all.

14. If there was nothing wrong with your program, a window pops up containing your results:
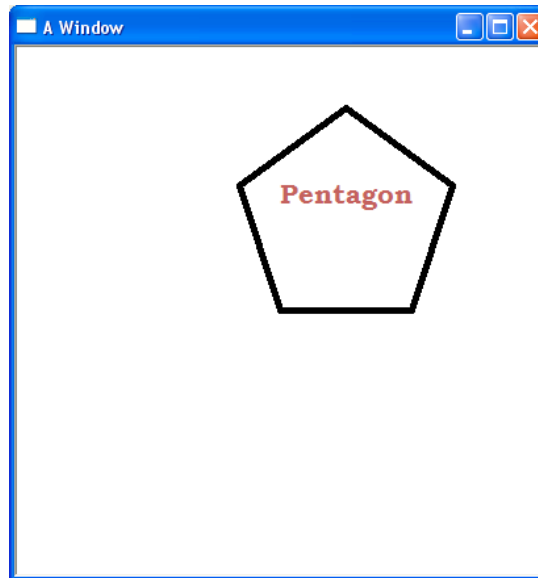
15. When you have finished admiring your work, just type control-C (while the output window is selected), and it will go away. You can get straight back to modifying your program and trying again, or if everything is perfect, you can exit from the visual C++ system.