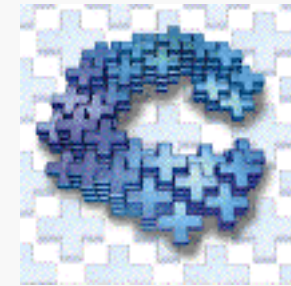


Quick Introduction

The following pages provide a quick tutorial on using Microsoft Visual C++ 6.0 to produce a small project. There should be no major differences if you are using version 5.0.



The following discussion is based on an actual session using the Visual C++ 6.0 Developer's Studio. The menu selections and options illustrated here do not conform to earlier versions of Visual C++. Please note the disclaimer in the front of these notes regarding compiler selection.

During the semester, a version of this appendix will be available via the course Web page for CS 1205:


<http://ei.cs.vt.edu/~cs1205/>

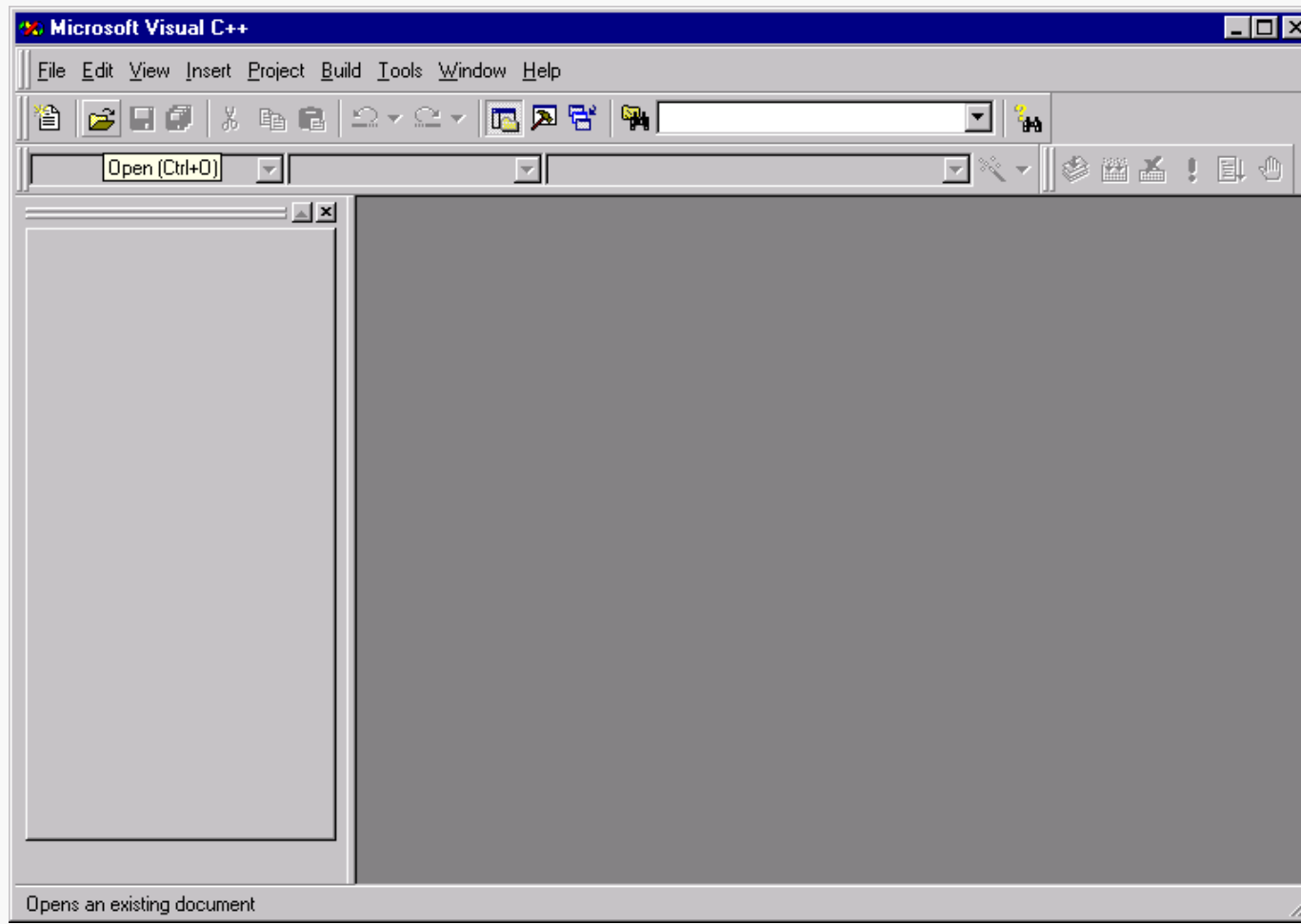
The online version may include additional information and interactive elements that cannot be reproduced here.

Getting Started: MS Visual C++ 6.0

1. Appendix

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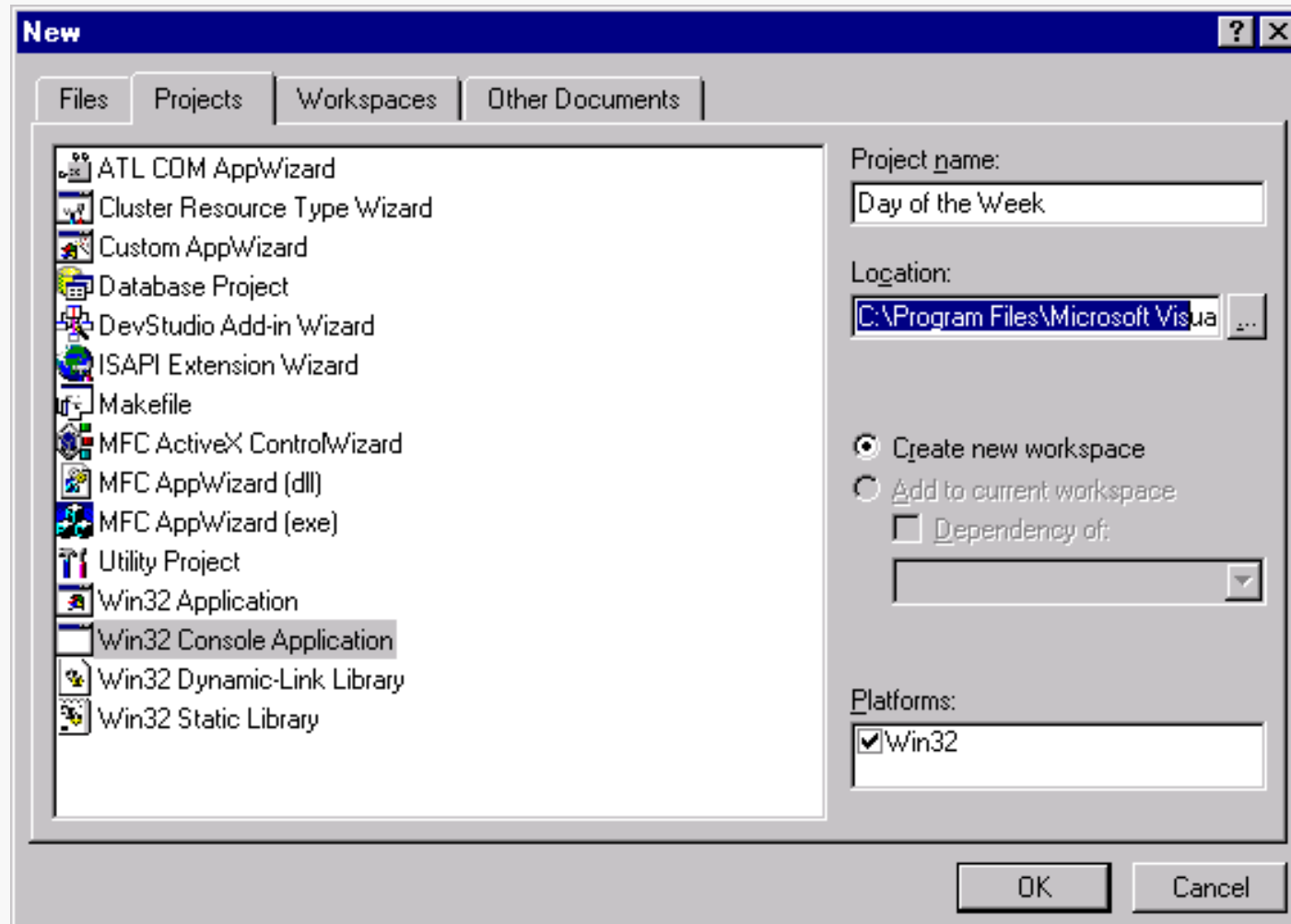
To start Microsoft Visual C++ in the McBryde 118 lab, click on ,  Start, select Programs, Microsoft Visual Studio 6.0, Microsoft Visual C++ 6.0. You should now see a screen that looks similar to this:



Creating a Project

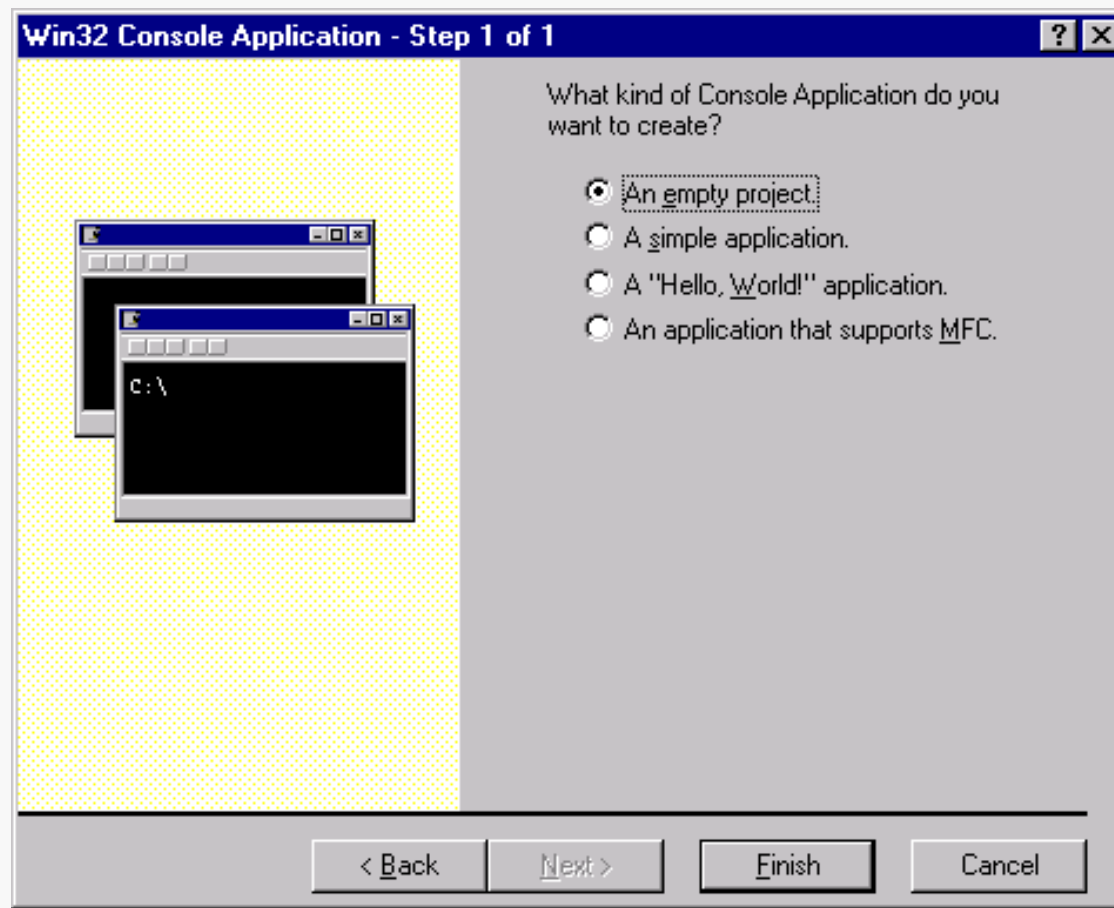
Before you can begin coding, you must create a new workspace and project.

To do so, go to the File menu and select New. You should see a dialog as shown below. Change the Location of the project to your user directory, (on Drive **Z:** in the CS lab).



After clicking Ok from the New project dialog window you will be presented with the project creation wizard “Win32 Console Application” dialog window as shown below:

Select an empty project and click Finish.

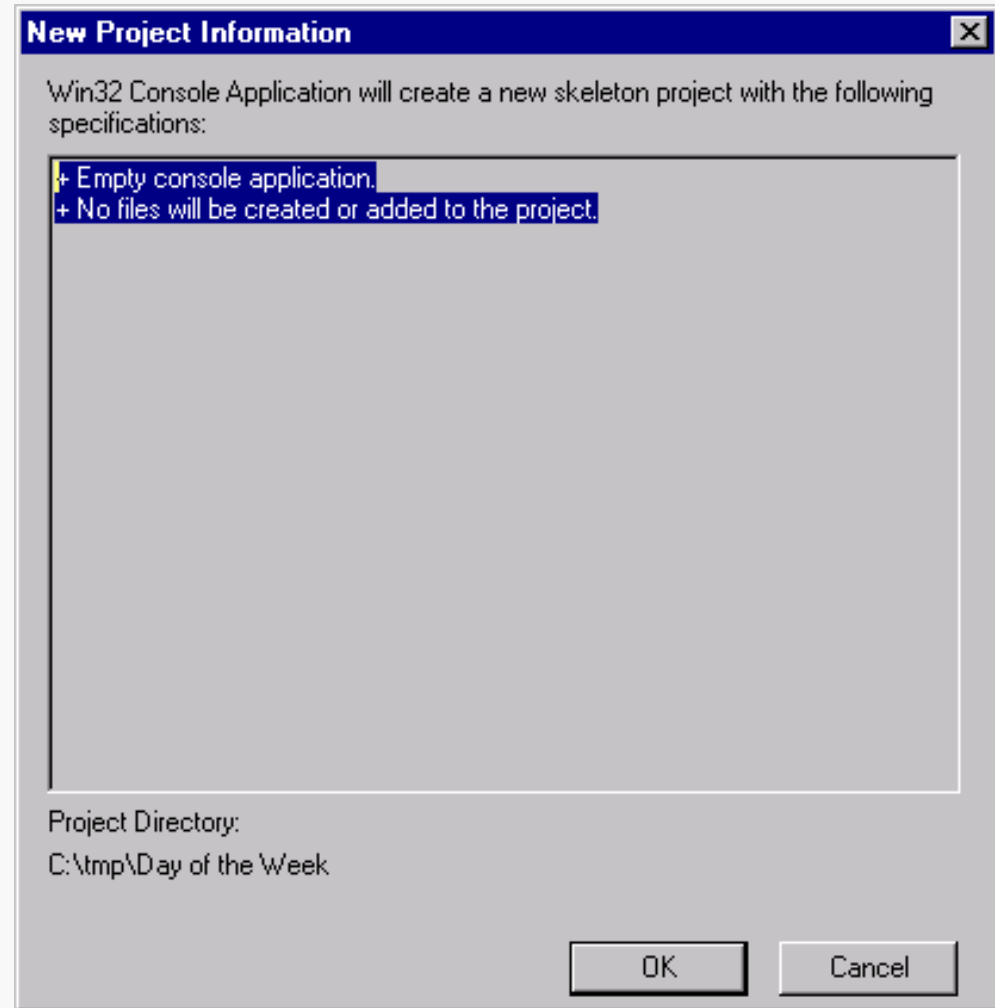


New Project Information

After clicking Finish from the “Win32 Console Application” dialog window a New Project Information window will simply explain no files were automatically generated.

Click Ok to continue.

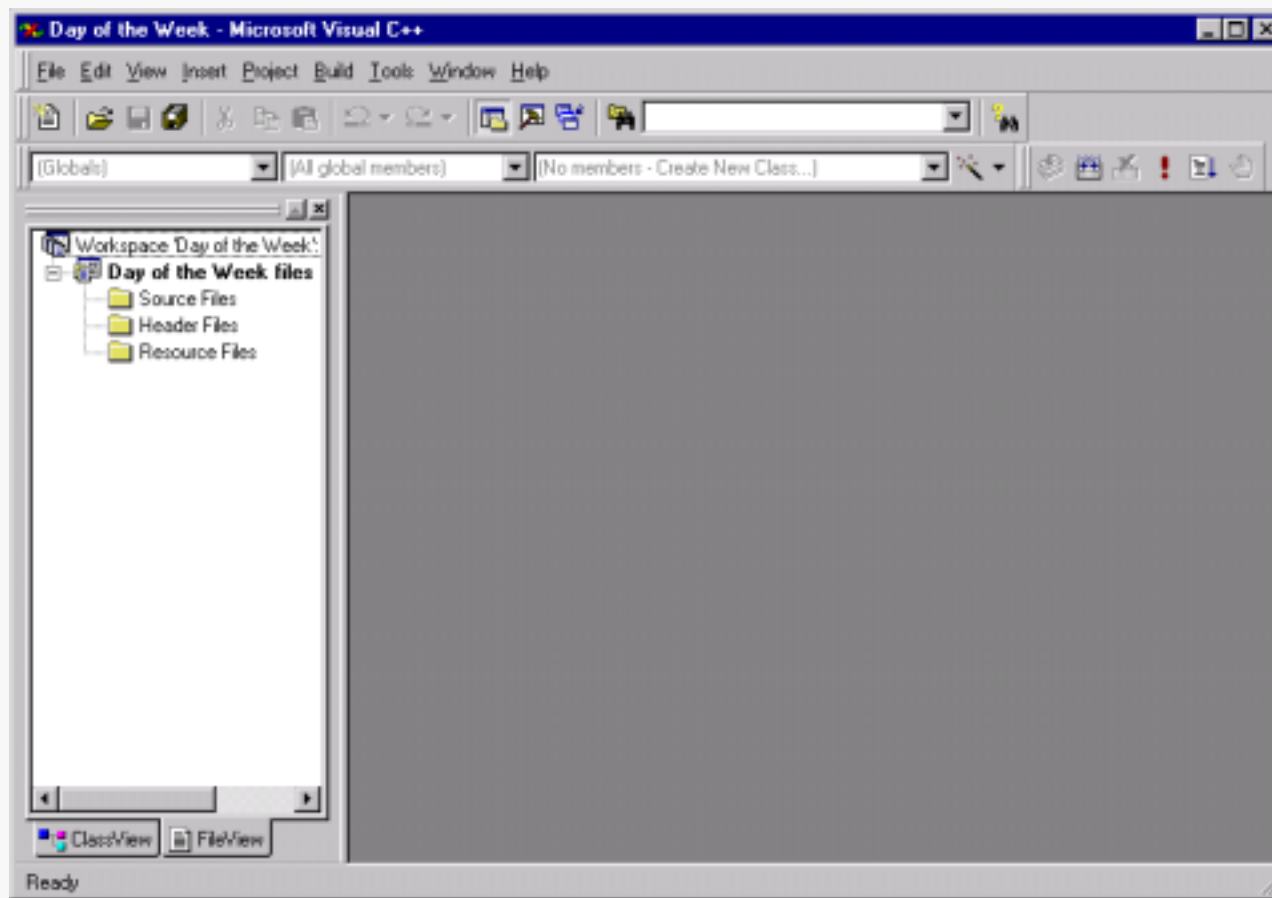
Note the Project Directory.
While files can be stored in the C:\tmp directory in the CS lab they will be deleted as soon as you log off and will be lost.



Creating a Project (continued)

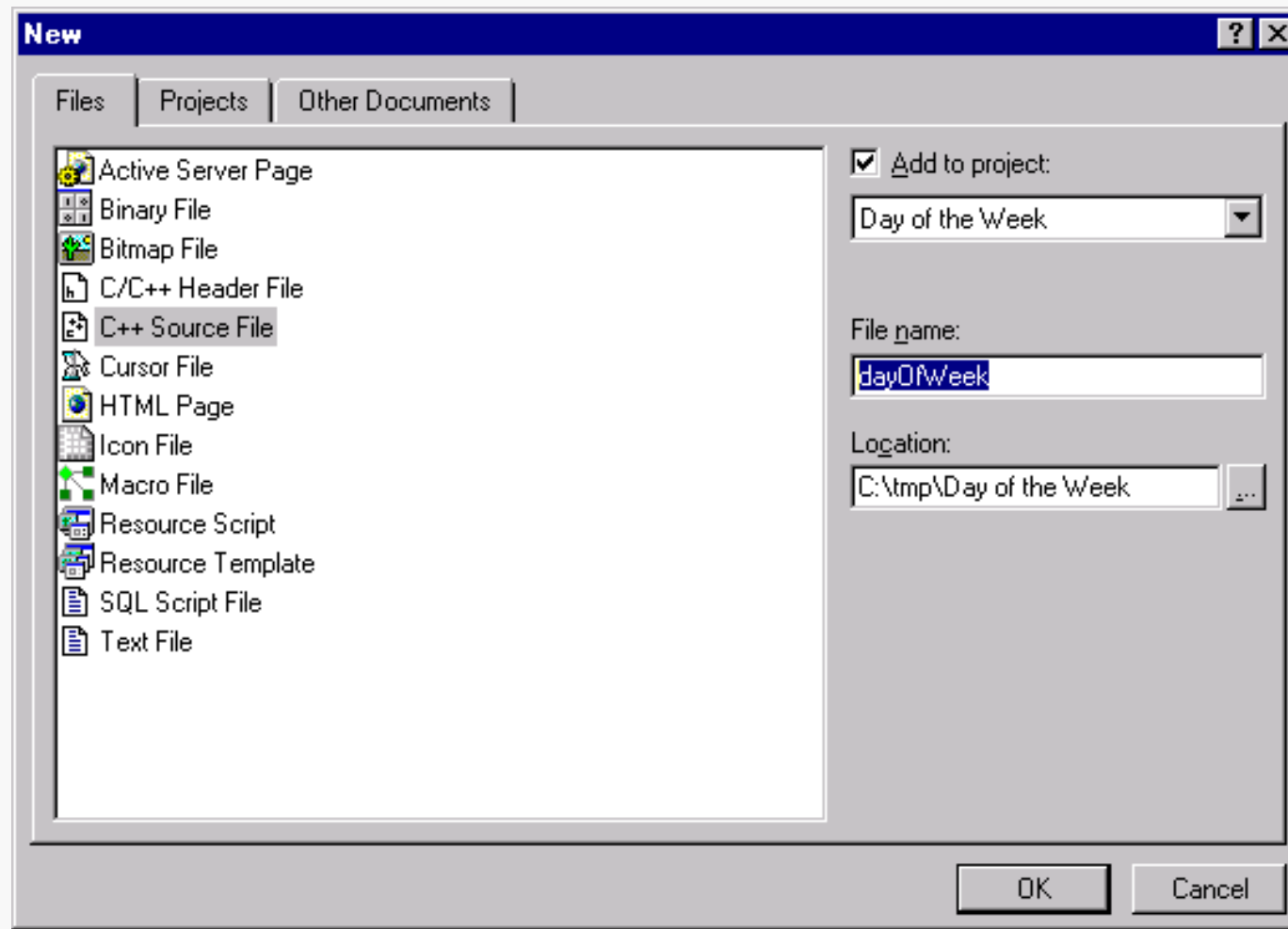
If in the New Dialog Box:

You selected Win32 Console Application (this will create an application that runs at the command prompt [like DOS]). In the Project Name textfield, you named your project Day of the Week. In the Location textfield, you typed the directory in which you wished to store your code files. After clicking OK, you should see a screen that looks similar to this:



New Source Code File:

Now that you have created a Project, you can add source code to it. To do so, go to the Project menu, select Add to Project, then New. You should see the following:



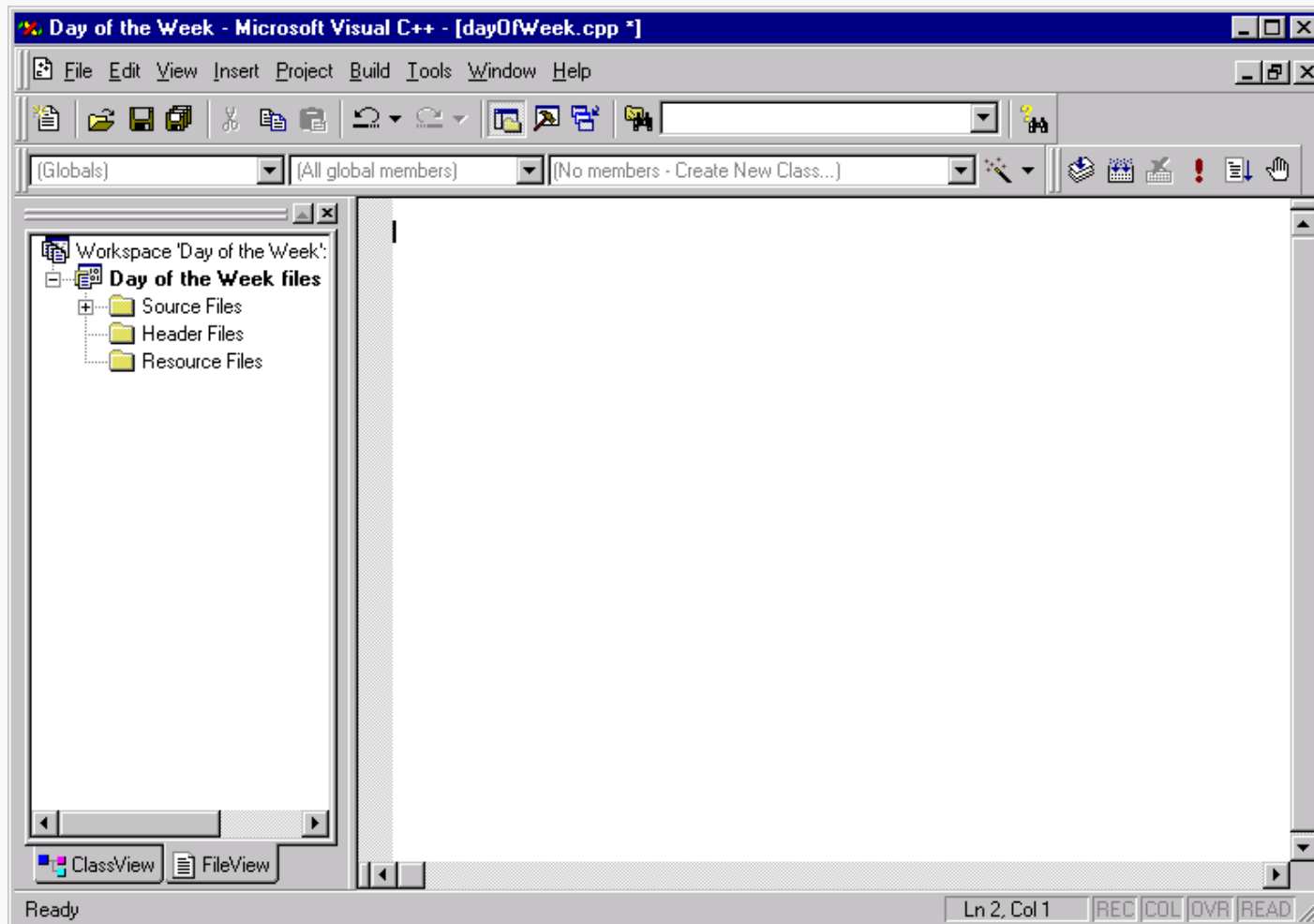
Creating a Code File (continued)

1. Appendix

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Project + Source Code File:

Click on C/C++ Source File. In the File Name textfield, type dayOfWeek. Click OK. You should now see a screen that looks similar to this:



Day of Week Program

Now in the edit window that just appeared type in the following C++ source code:

```
#include <iostream.h>
#include <stdlib.h>

int main() //Find the Day of the Week for a Date
{
    int    mon, day, year;

    cout << "Enter a date for which you wish to know" << endl;
    cout << "the day of the week (MM DD YYYY)? ";
    cin  << month >> day >> year;

    if (year < 1752)
        cout << "Only Gregorian dates accepted, sorry " << endl;
    else {

        if (month < 3) { //Jan & Feb = 13 & 14 preceding year
            month += 12;
            year  -= 1;
        } // end if
```

Day of Week Program

```
weekDay = (day + 2*month + 3*(month+1)/5 + year +
           year/4 - year/100 + year/400 + 1) % 7;

if (month > 12) { //reset Jan & Feb
    month -= 12;
    year  += 1 ;
} // end if

cout << month << "/" < day << "/" << year << " falls on ";
switch (weekDay) {
    case 0: cout << "Sunday" << endl; break;
    case 1: cout << "Monday" << endl; break;
    case 2: cout << "Tuesday" << endl; break;
    case 3: cout << "Wednesday" << endl; break;
    case 4: cout << "Thursday" << endl; break;
    case 5: cout << "Friday" << endl; break;
    case 6: cout << "Saturday" << endl; break;
} // end switch

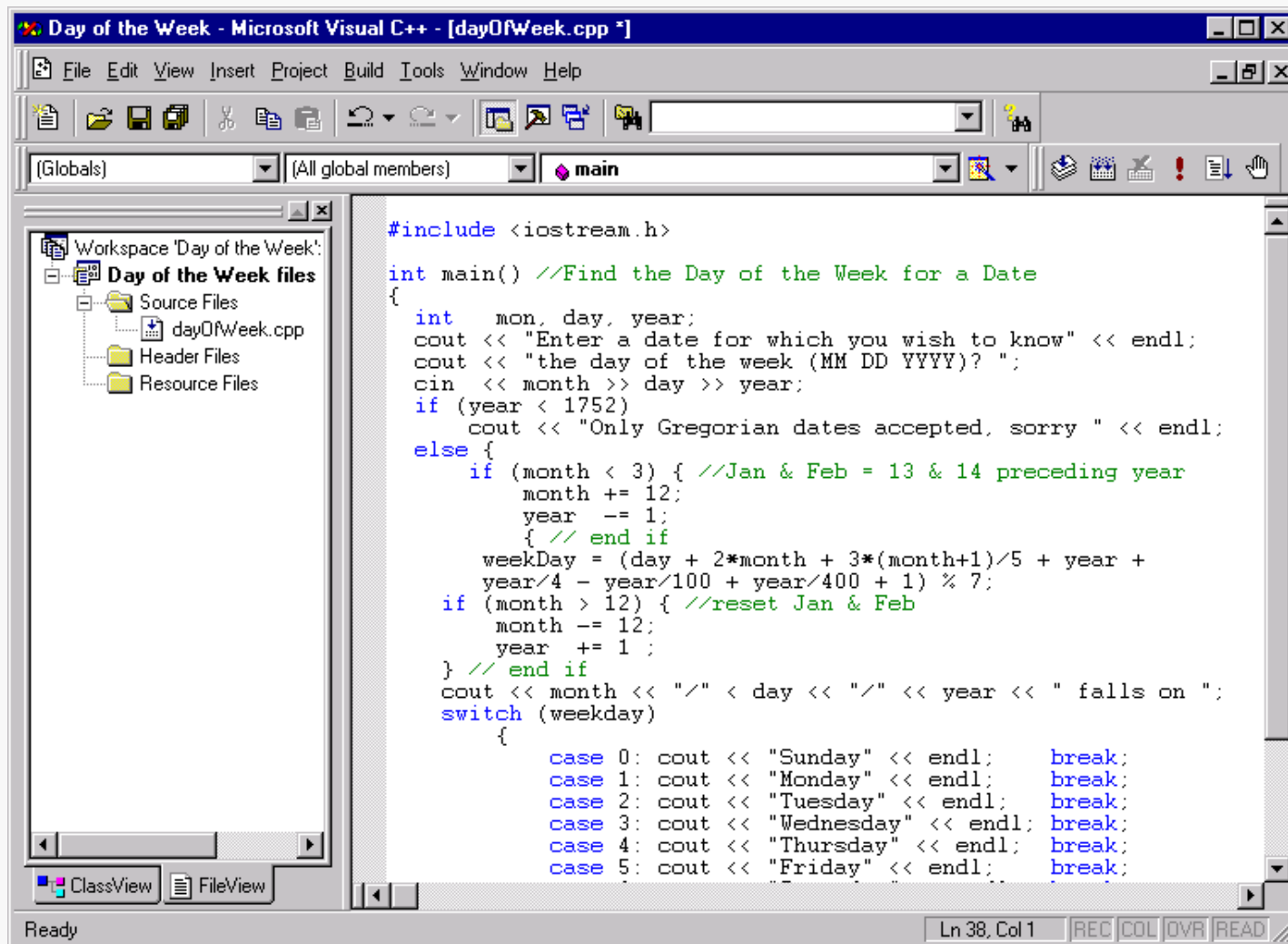
} // end else

return EXIT_SUCCESS;
} // end main
```

When you are done, save the file (<Ctrl S> or File, Save)

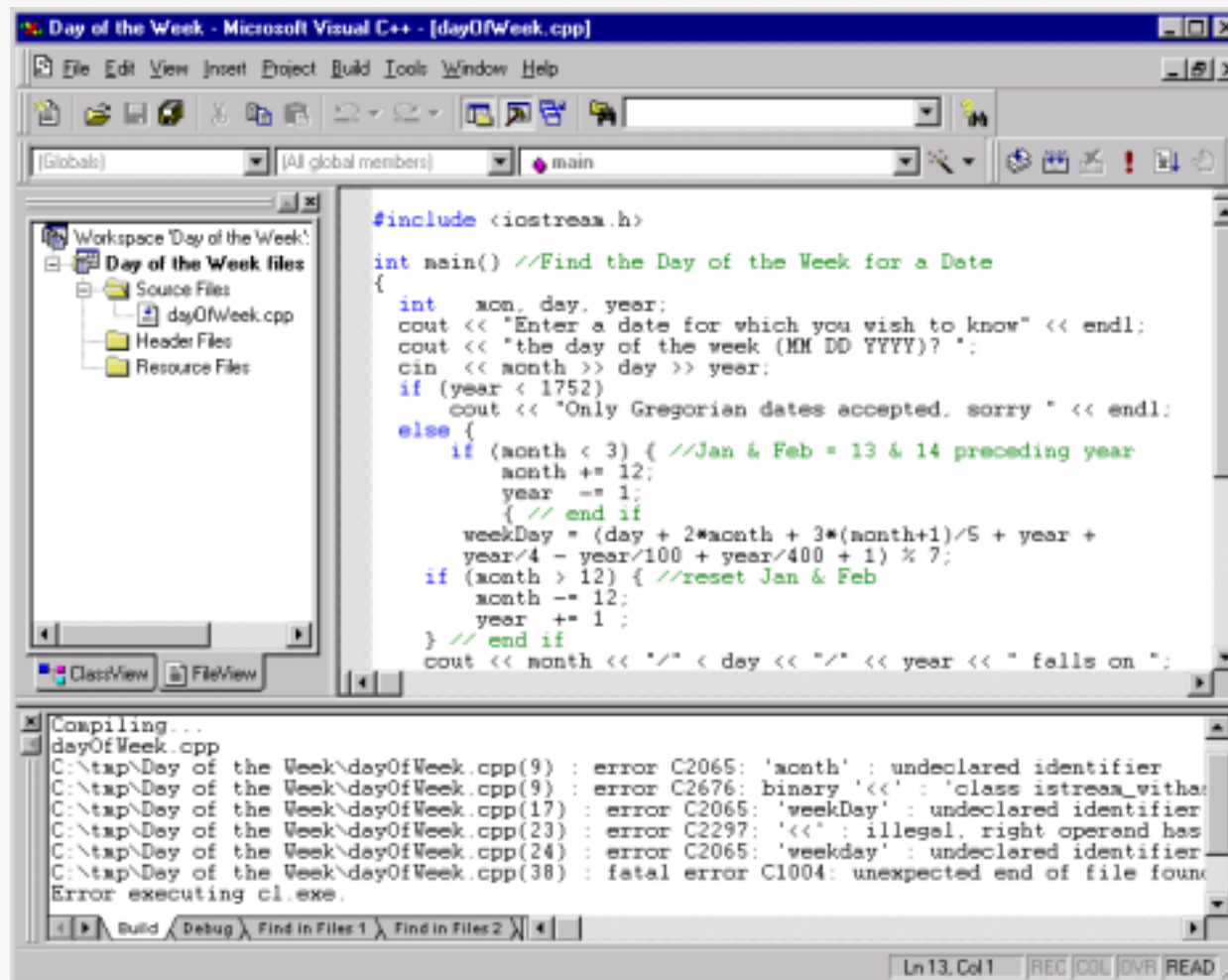
Code Entry

Now that you have entered all of your source code, you should have a window that looks like:



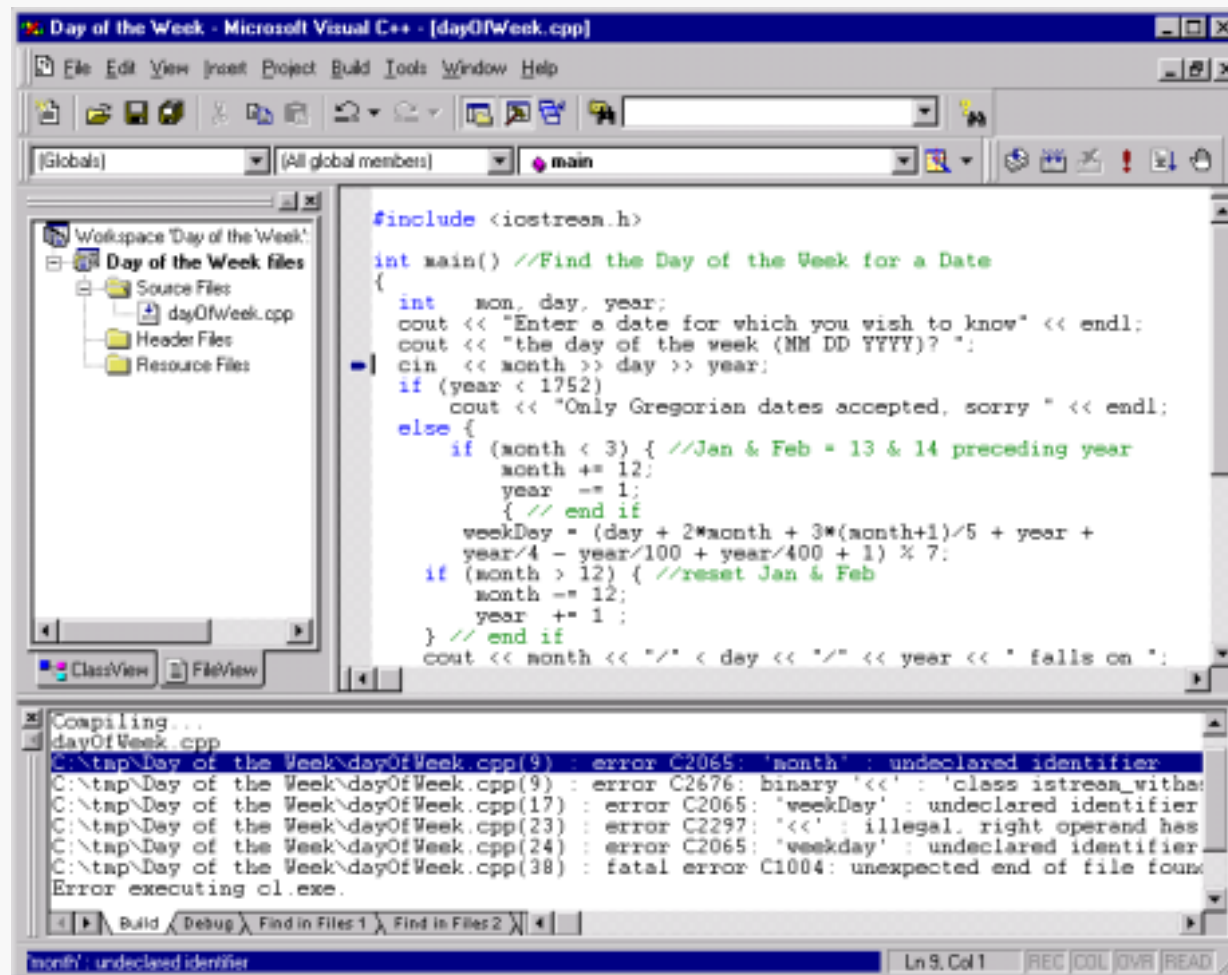
Compilation

You can now attempt to build your project. Building involves compiling and linking into an executable. Attempt to build the project, by hitting F7 or from the Build menu, select Build Day of the Week:



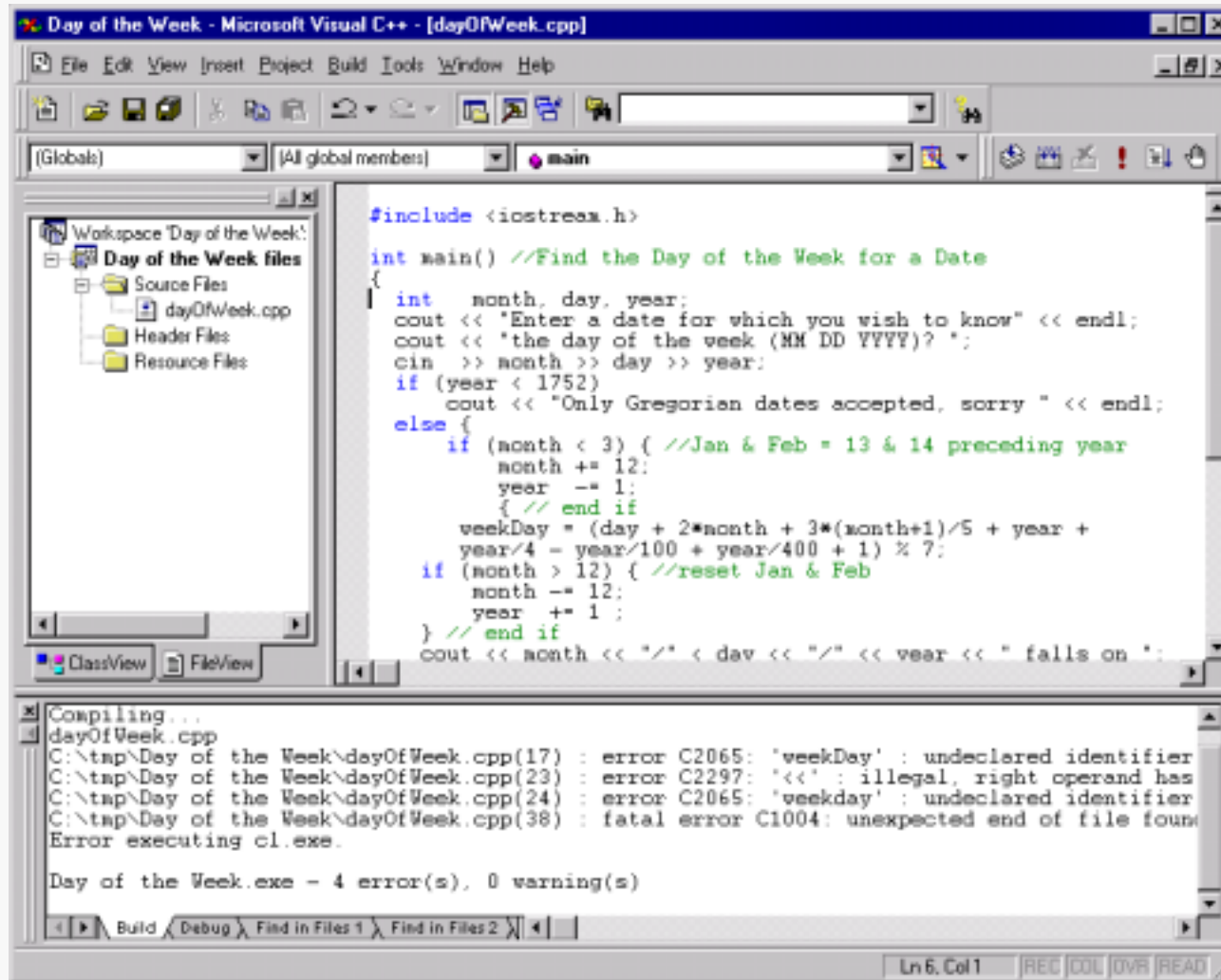
Finding Errors

Notice the compiler error messages in the lower window. Double click on an error message, and the line with the error will be indicated in the code window:



Compilation Errors

Now correct the errors relating to line 8 and build the project again:



The screenshot shows the Microsoft Visual C++ IDE. The main window displays the source code for 'Day of the Week.cpp'. The code is as follows:

```
#include <iostream.h>

int main() //Find the Day of the Week for a Date
{
    int month, day, year;
    cout << "Enter a date for which you wish to know" << endl;
    cout << "the day of the week (MM DD YYYY)? ";
    cin >> month >> day >> year;
    if (year < 1752)
        cout << "Only Gregorian dates accepted, sorry " << endl;
    else {
        if (month < 3) { //Jan & Feb = 13 & 14 preceding year
            month += 12;
            year -= 1;
        } // end if
        weekDay = (day + 2*month + 3*(month+1)/5 + year +
            year/4 - year/100 + year/400 + 1) % 7;
        if (month > 12) { //reset Jan & Feb
            month -= 12;
            year += 1;
        } // end if
        cout << month << "/" << day << "/" << year << " falls on ";
    }
}
```

The bottom window shows the compilation output with the following errors:

```
Compiling...
dayOfWeek.cpp
C:\tmp\Day of the Week\dayOfWeek.cpp(17) : error C2065: 'weekDay' : undeclared identifier
C:\tmp\Day of the Week\dayOfWeek.cpp(23) : error C2297: '<<' : illegal, right operand has
C:\tmp\Day of the Week\dayOfWeek.cpp(24) : error C2065: 'weekday' : undeclared identifier
C:\tmp\Day of the Week\dayOfWeek.cpp(38) : fatal error C1004: unexpected end of file found
Error executing cl.exe.

Day of the Week.exe - 4 error(s), 0 warning(s)
```

If you did not format your text similar to the code at the left then the line numbers on the error messages may not match the ones shown.

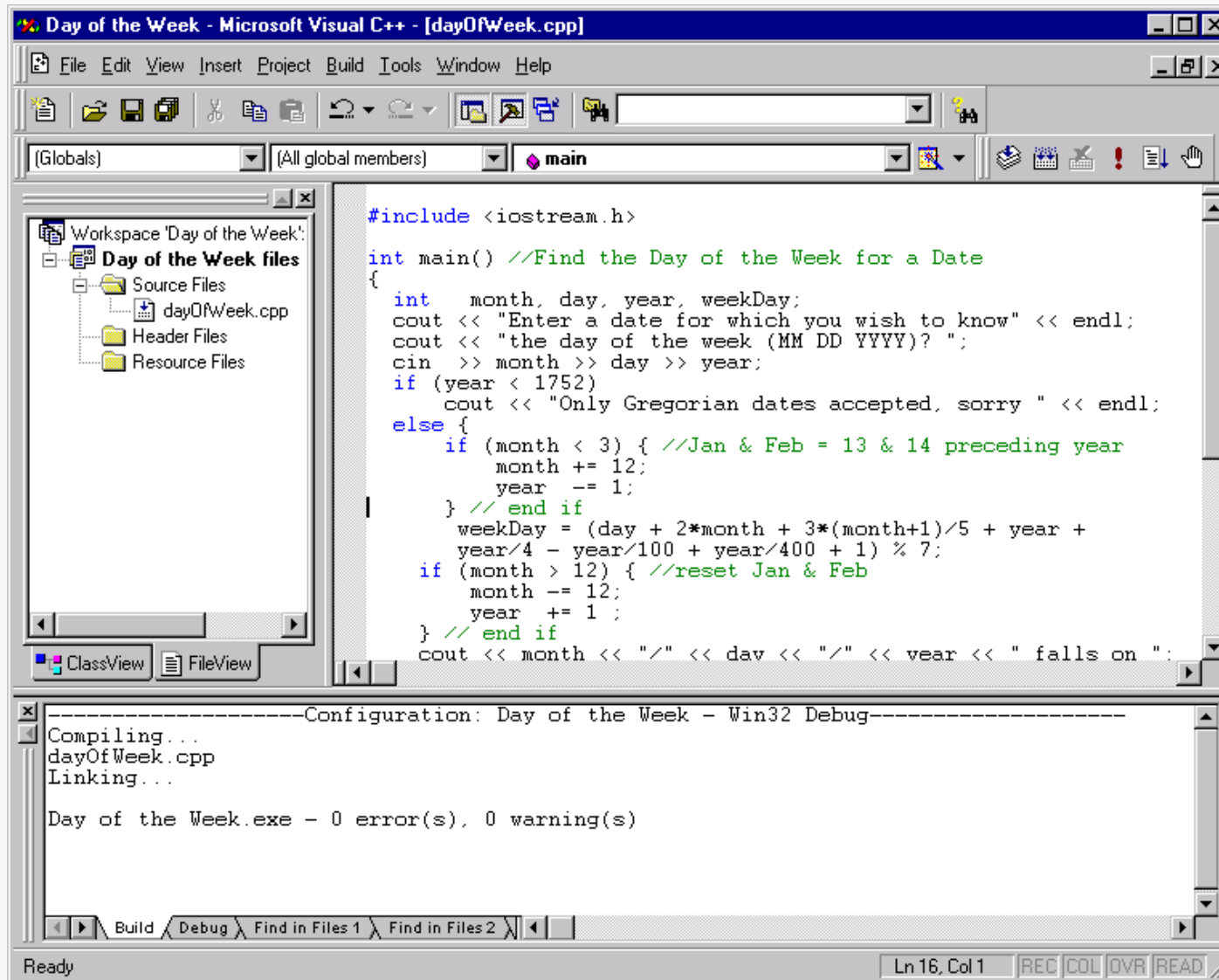
Error corrections:

In case you can't figure out the errors here they are:

- Line 5: change mon to month
 add the variable weekday
- Line 8: change the << to >>
 (we want to save the value to a variable, not write it to the output stream)
- Line 15: change the { to } (we want to end the block, not start one)
- Line 16: change weekDay to weekday to match the declaration
- Line 20: change the < to <<

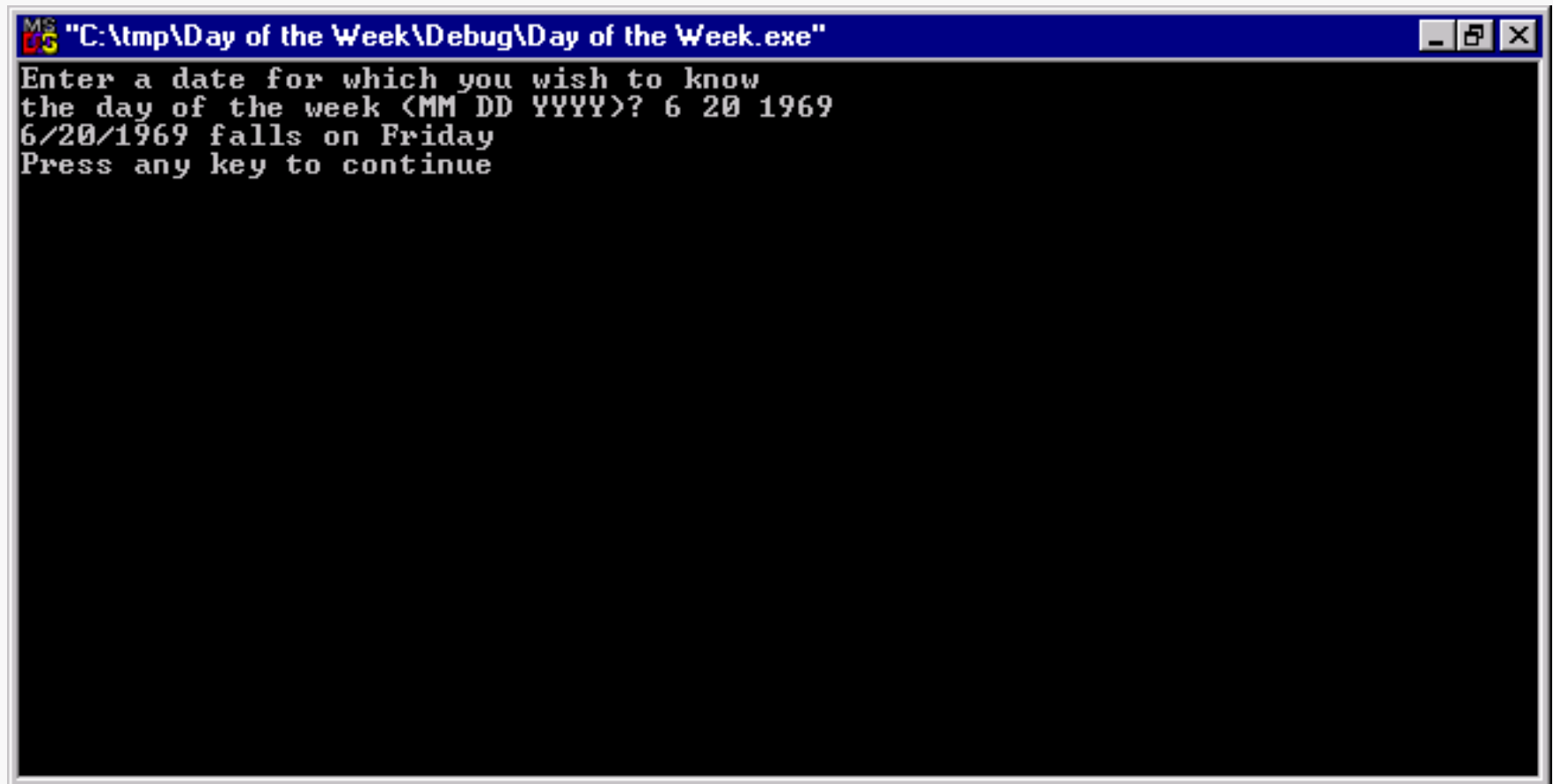
Continue correcting errors and rebuilding until you have no errors:

No Errors



Program Execution

Now that your code has been compiled into an executable, it is ready to be executed. You can do so by pressing <Ctrl F5> or going to the Build menu and selecting Execute Day of the Week.exe Now you should see a DOS prompt with the program running:



```
MS-DOS "C:\tmp\Day of the Week\Debug\Day of the Week.exe"
Enter a date for which you wish to know
the day of the week <MM DD YYYY>? 6 20 1969
6/20/1969 falls on Friday
Press any key to continue
```