

## C LAB WORKSHEET 1: INTRODUCTION

Together with the Tenouk's [C/C++ Tutorial](#), lab worksheets are used in the practical session. You may go through the [C/C++ Tutorial](#) first, before doing the practical of the compiling, linking and running the C/C++ programs. However, this lab worksheet is independent and can be used standalone in learning C through hands-on activities, no prior pre-requisite is needed.

In the first series we are going to concentrate on C coding. The compiler used is Visual C++ 2005 Express Edition (part of the [Visual Studio 2005 Express Edition](#)). This compiler is a 'Lite' version of the Visual C++ 2005 (part of the [Visual Studio 2005](#)), free and can be downloaded at [Microsoft Visual C++ website](#). Using VC++ 2005 Express Edition is sufficient for us to play around with C/C++ coding and it is based on the .Net framework 2.x. The latest version is Visual C++ 2008 (Visual Studio 2008) with .NET Framework 3.5 and the Express edition also available. You will find that whether ANSI/ISO/IEC Standard or implementation specific C, newer compilers have introduced or supported many new constructs mainly in the security aspects of the library functions.

This series will not cover all the topics and/or subtopics in the C/C++ Tutorial but it will give you a sufficient C understanding through a lot of exercises and at the same time provide you the activities in order to be familiar with your compiler and understand the C syntaxes and constructs. It contains coding, compiling and answering questions tasks.

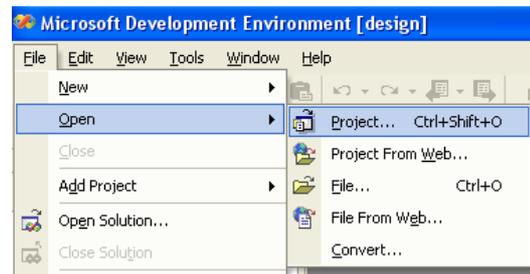
As a starting point, in this lab worksheet we are trying to re-compile Tenouk's C++ programs ([MFC #1](#), [MFC #2](#) and [MFC #3](#)) created using Visual C++ 6.0 in [Visual C++ .Net 2003](#). Keep in mind that there is no more support for VC++ 6.0 from Microsoft. After that we will proceed with installing and using Visual C++ 2005 Express Edition. What ever it is, we are not going to use the [managed code](#) (Common Language Runtime - CLR based) of the .Net framework, just a plain Standard C code so that the C code snippets can be used with any C/C++ compilers, open source or commercial.

### Converting Visual C++ 6.0 MFC project to Visual C++ .Net 2003

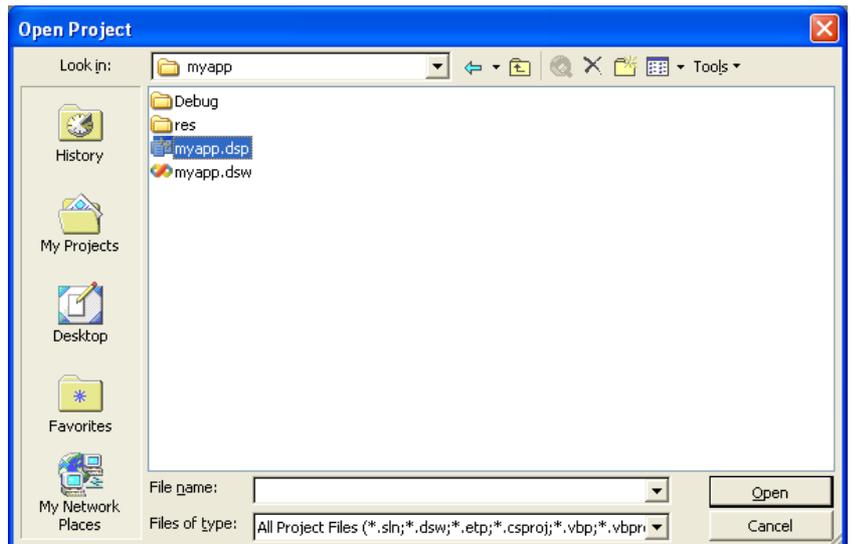
The following steps demonstrate on how to convert your old VC++ 6.0 to Visual C++ .NET 2003 (the Visual C++ .NET 2003 and prior .NET IDE is based on Managed Extension C++). The real Managed C++ is Visual C++ .NET 2005 and above)

We are going to open Visual C++ 6.0 MFC project ([myapp raw files](#), [myapp in zip](#)) from the previous tutorial in [Visual C++ .Net 2003](#) (converting the project as well).

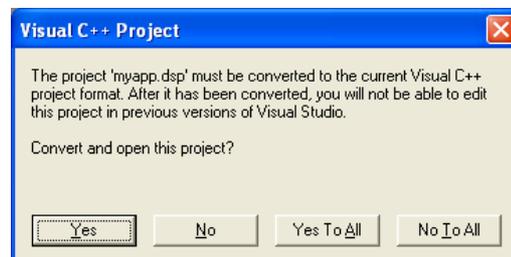
1. Launch the Visual C++ .Net 2003 IDE. Select **File** → **Open** → **Project** menu. (The steps on how to install and used C/C++ compilers can be found at [install and use compilers](#))



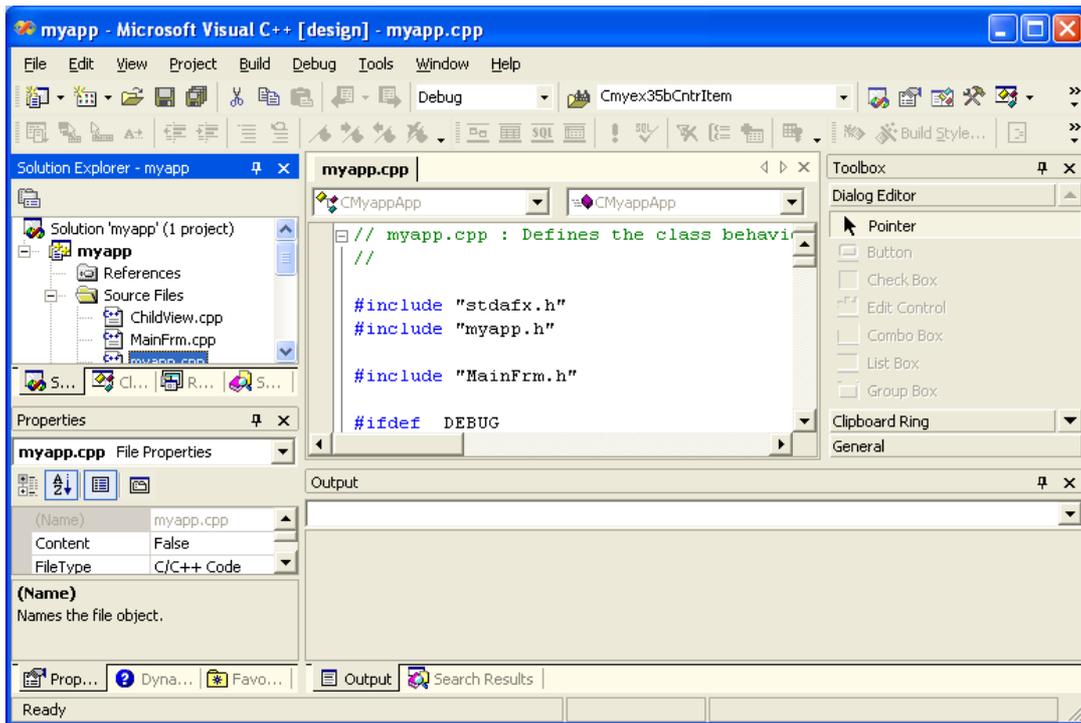
2. Select the Visual C++ 6.0 project file (.dsp) and click the **Open** button as shown.



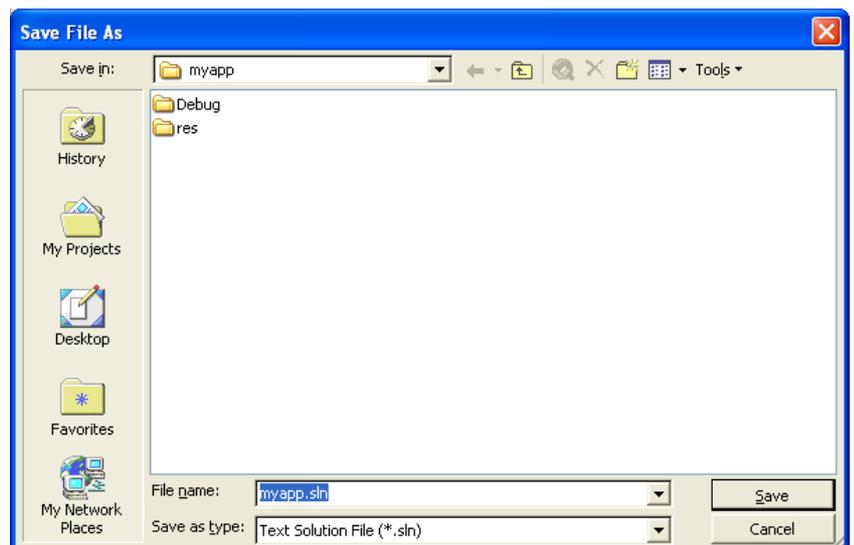
3. The following dialog box will be displayed. From the message, if you need to reopen the project in the Visual C++ 6 later, you must create a backup (copy) of the project. For this activity, just click the **Yes To All** button that means we will convert to and open Visual C++ 6.0 project (all files) in Visual C++ .Net 2003 IDE.



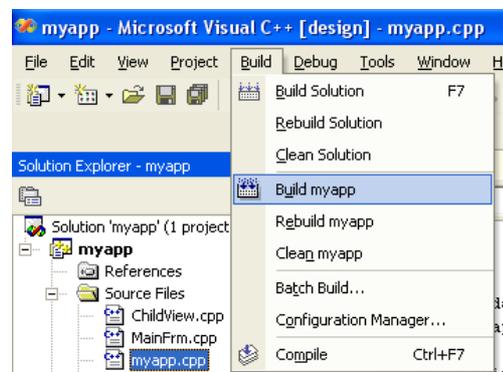
- Here we are. Next we are going to build this program. Firstly we need to save our project in the new environment. Click the **File** → **Save All** menu or click the **Save All** icon in the menu bar.



- Put the solution name or you can accept the default given name.



- Here we accept the default solution name and click the **Save** button. Next, click the **Build** menu or click the short cut **Build** icon in the menu bar.



- Notice the **Output** window for any weird error(s) or warning(s) that normally related to the old version of syntaxes or you need to adjust some of the project properties accordingly. You may also check the **BuildLog.htm** file for the detail.

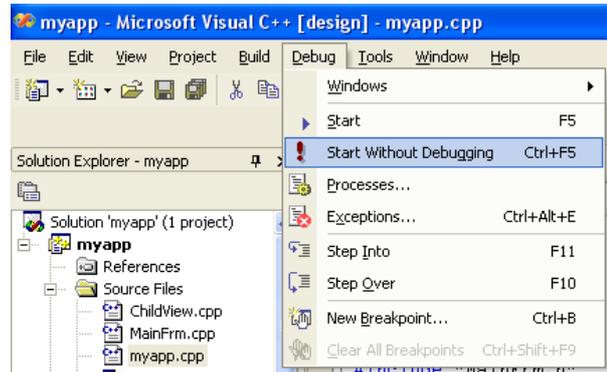
```
Output
Build
ChildView.cpp
Generating Code...
Linking...
LINK : warning LNK4075: ignoring '/EDITANDCONTINUE' due to '/INCREMENTAL:NO' specification

Build log was saved at "file:///f:/mfcproject/mfcproject/myapp/Debug/BuildLog.htm"
myapp - 0 error(s), 2 warning(s)

----- Done -----

Build: 1 succeeded, 0 failed, 0 skipped
```

8. Next we are going to run the program (**Start Without Debugging** – **Ctrl + F5**).



9. Here is the output! Your Visual C++ 6.0 project already became Visual C++ .Net project.

