



How to install MASM in Visual Studio 2010



Steps to be followed

- Install MASM library from the link:
<http://kipirvine.com/asm/examples/index.htm>
- Paste it in
 - c:\Program files(x86)\Microsoft Visual Studio 10.0\ VC\include
 - c:\Program files(x86)\Microsoft Visual Studio 10.0\ VC\lib
- Follow the initial steps (Adding Start without Debugging command) mentioned in link:
<http://kipirvine.com/asm/gettingStartedVS2013/index.htm#tutorial32>



Creating MASM project from Scratch



Connect To Team Foundation Server

[New Project...](#)

Open Project...

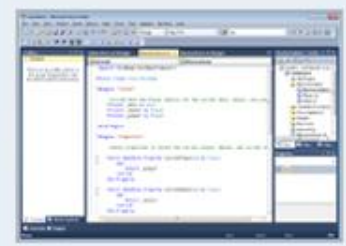
Recent Projects

- Lab1
- Assembly
- Main
- Project
- Lab
- COAL

- ☒ Close page after project load
- ☒ Show page on startup

Get Started | **Guidance and Resources** | Latest News

Welcome | [Windows](#) | [Web](#) | [Cloud](#) | [Office](#) | [SharePoint](#) | [Data](#)



What's New in Visual Studio 2010
Learn about the new features included in this release.
[Visual Studio 2010 Overview](#)
[What's New in .NET Framework 4](#)
[What's New in Visual C++](#)
[Customize the Visual Studio Start Page](#)



Creating Applications with Visual Studio

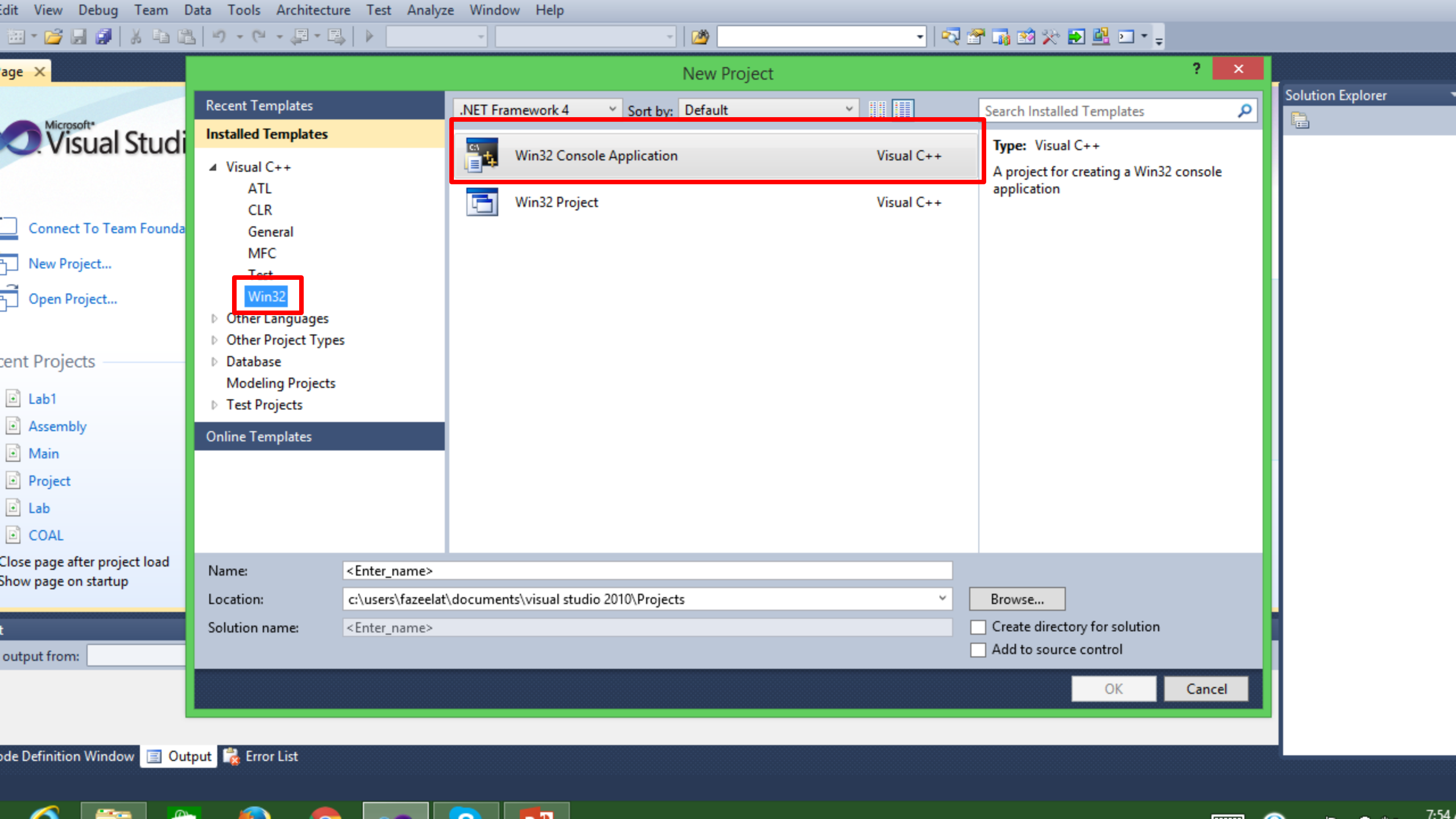


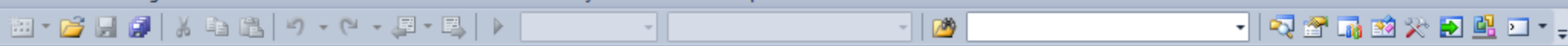
Extending Visual Studio



Output

Show output from:





Page X

Microsoft® Visual Studio 2010 Ultimate

Connect To Team Foundation Server

New Project...

Open Project...

Recent Projects

- Lab1
- Assembly
- Main
- Project
- Lab
- COAL

Close page after project load
Show page on startup

output from:

Code Definition Window Output Error List

g project 'Lab'...

Win32 Application Wizard - Lab



Welcome to the Win32 Application Wizard

Overview

Application Settings

These are the current project settings:

- Console application

Click **Finish** from any window to accept the current settings.

After you create the project, see the project's readme.txt file for information about the project features and files that are generated.

< Previous

Next >

Finish

Cancel

Solution Explorer





Page X

Microsoft Visual Studio 2010 Ultimate

Connect To Team Foundation Server

New Project...

Open Project...

Recent Projects

Lab1

Assembly

Main

Project

Lab

COAL

Close page after project load

Show page on startup

Output from:

Code Definition Window Output Error List

g project 'Lab'...

Win32 Application Wizard - Lab

Application Settings

Overview

Application Settings

Application type:

☐ Windows application

☒ Console application

☐ DLL

☐ Static library

Add common header files for:

☐ ATL

☐ MFC

Additional options:

☒ Empty project

☐ Export symbols

☒ Precompiled header

< Previous

Next >

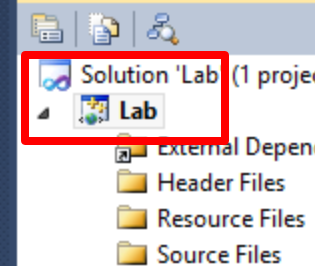
Finish

Cancel

Solution Explorer



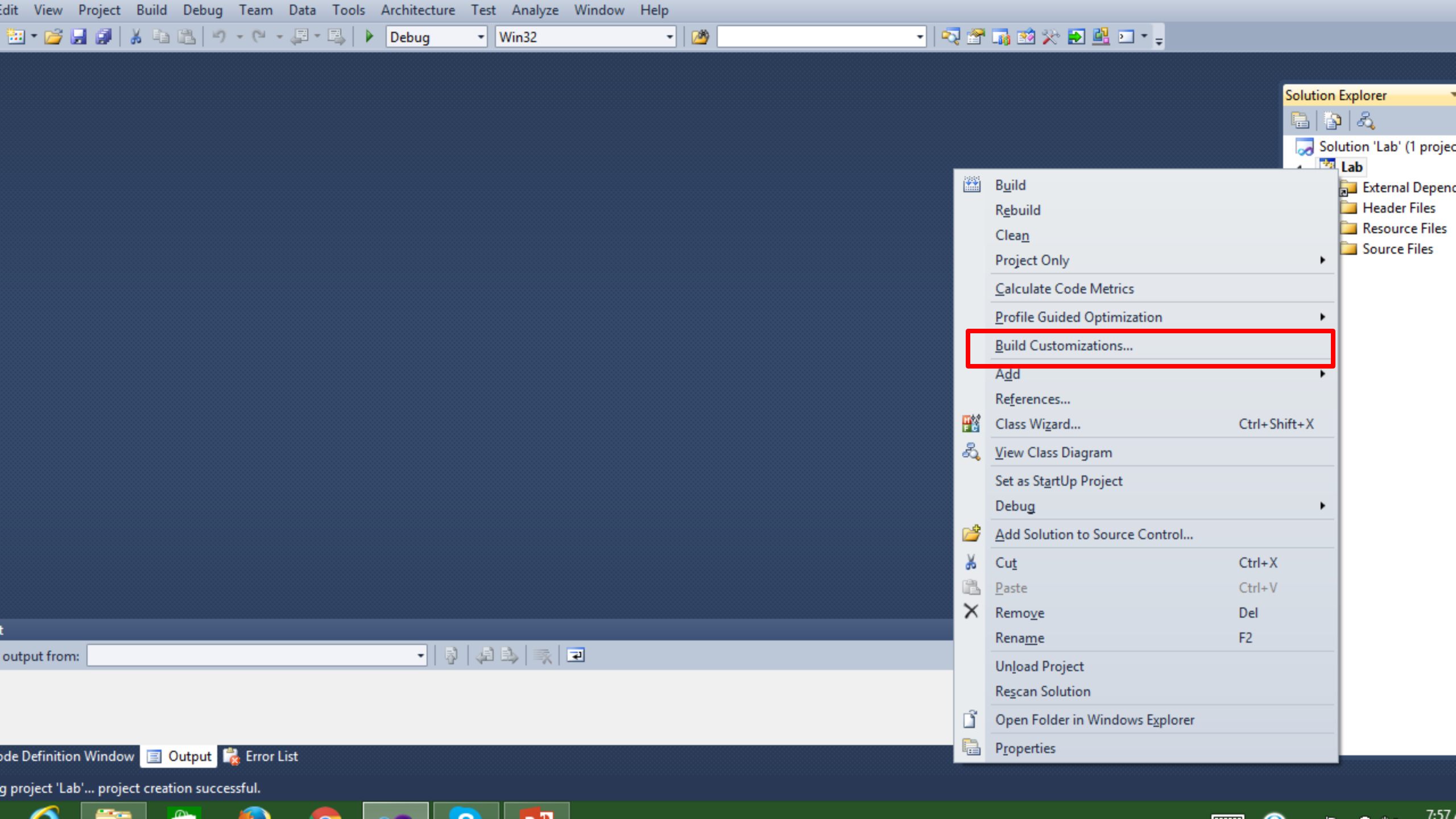
Solution Explorer



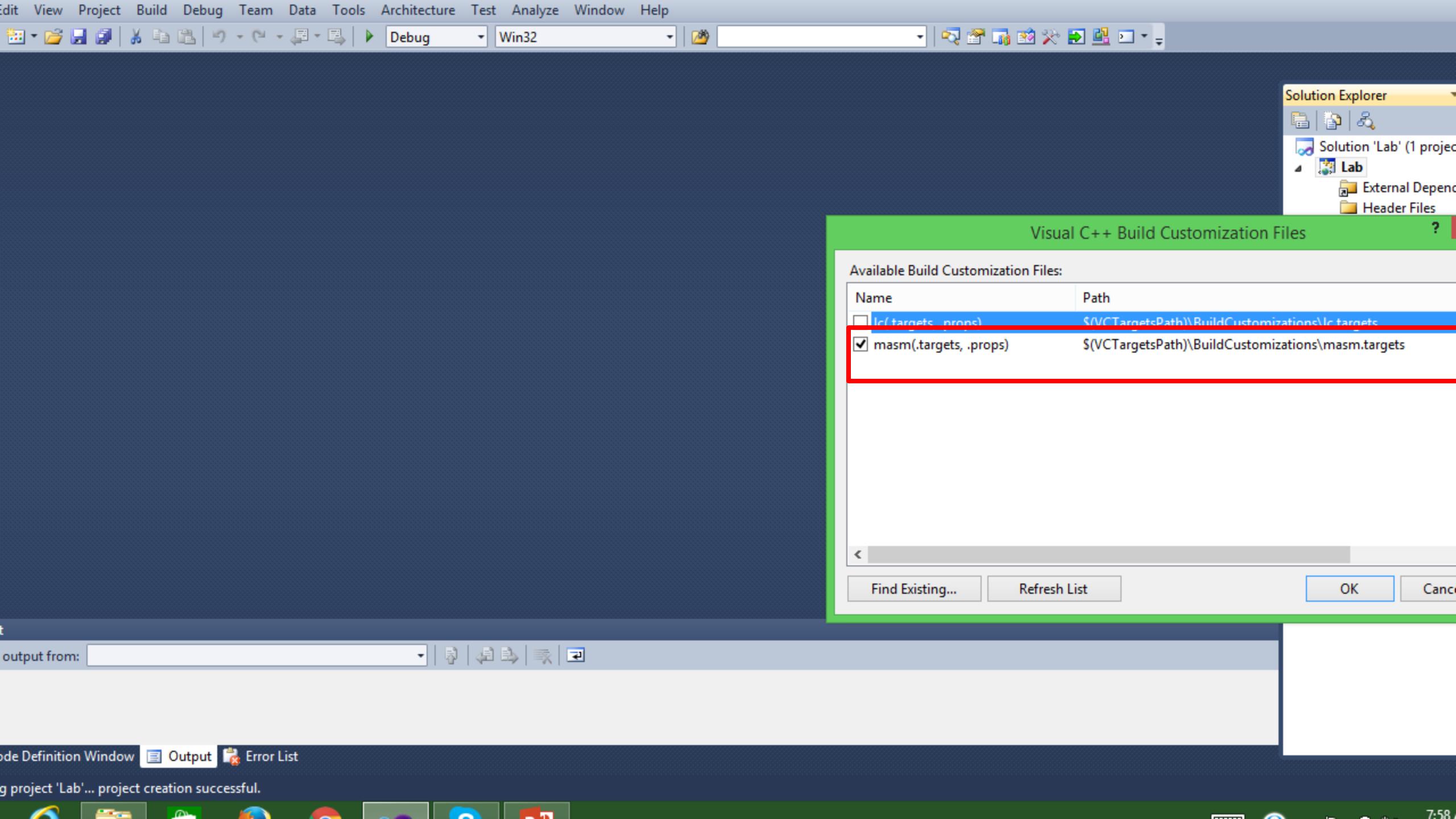
output from:

Code Definition Window Output Error List

g project 'Lab'... project creation successful.



- Build
- Rebuild
- Clean
- Project Only
- Calculate Code Metrics
- Profile Guided Optimization
- Build Customizations...
- Add
- References...
- Class Wizard... Ctrl+Shift+X
- View Class Diagram
- Set as StartUp Project
- Debug
- Add Solution to Source Control...
- Cut Ctrl+X
- Paste Ctrl+V
- Remove Del
- Rename F2
- Unload Project
- Rescan Solution
- Open Folder in Windows Explorer
- Properties



Solution Explorer



Solution 'Lab' (1 project)

Lab

External Dependencies

Header Files

Visual C++ Build Customization Files

Available Build Customization Files:

Name	Path
<input type="checkbox"/> lc(.targets, .props)	\$(VCTargetsPath)\BuildCustomizations\lc.targets
<input checked="" type="checkbox"/> masm(.targets, .props)	\$(VCTargetsPath)\BuildCustomizations\masm.targets

Find Existing...

Refresh List

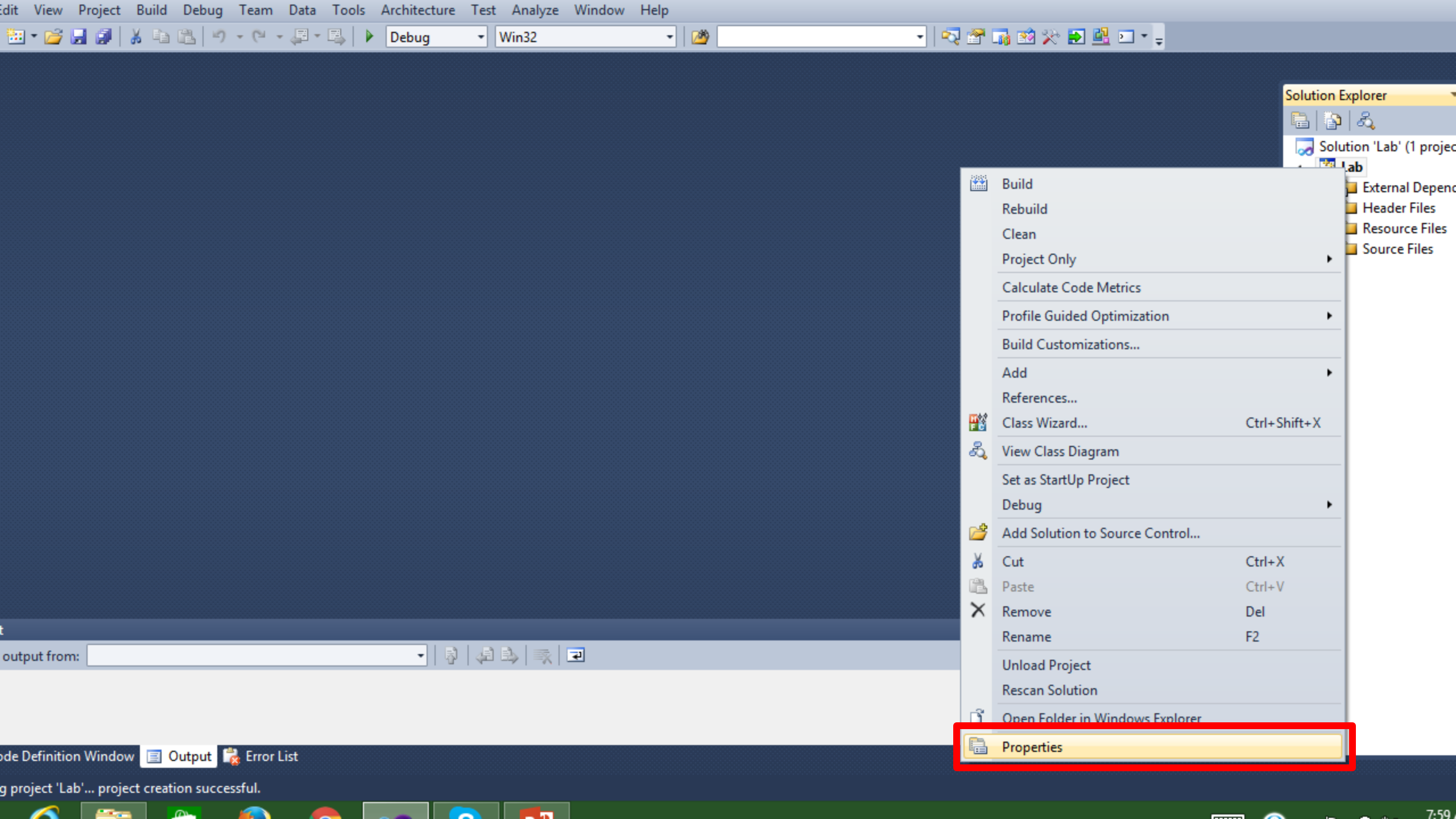
OK

Cancel

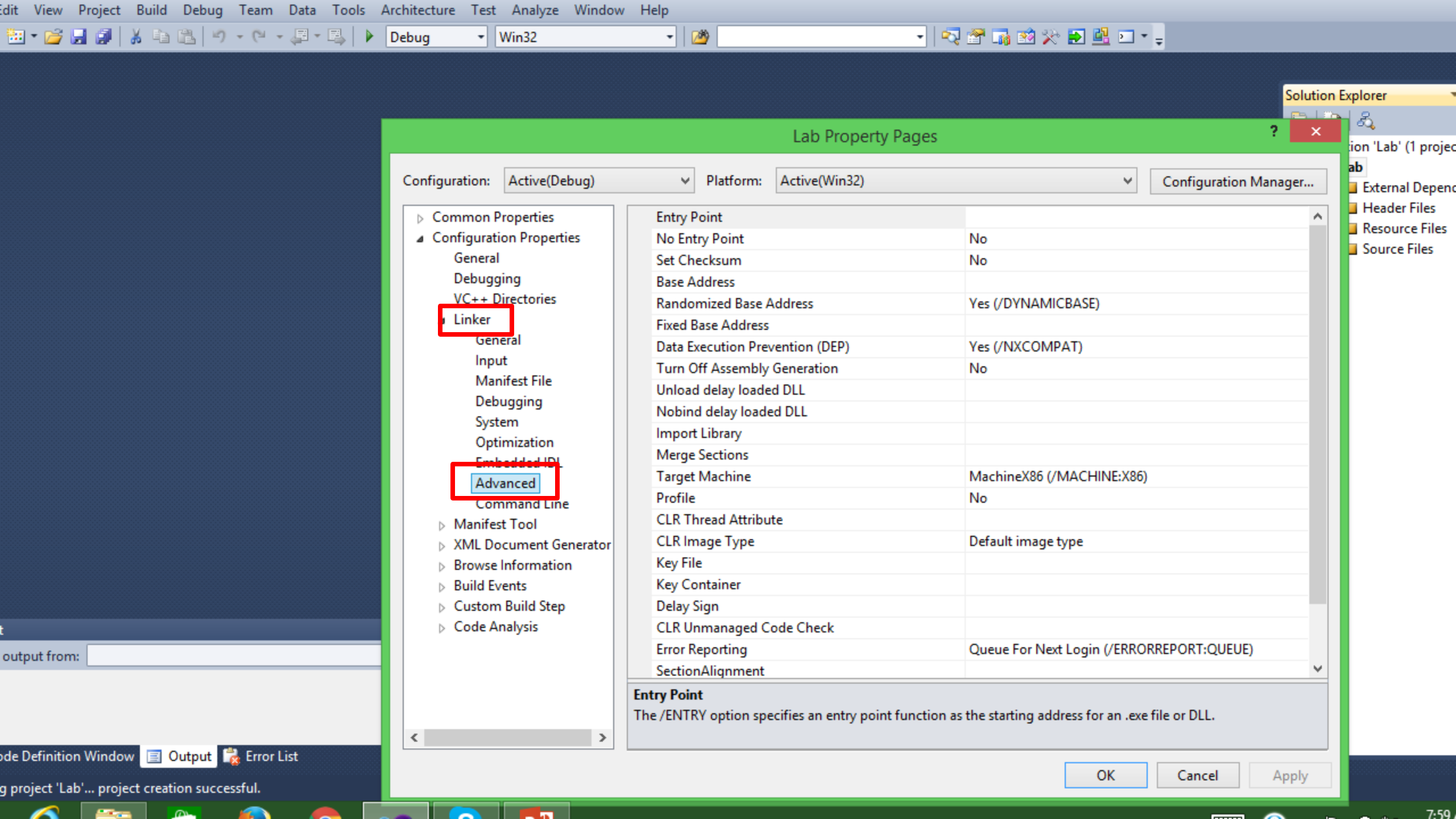
output from:

Code Definition Window Output Error List

Building project 'Lab'... project creation successful.



- Build
- Rebuild
- Clean
- Project Only
- Calculate Code Metrics
- Profile Guided Optimization
- Build Customizations...
- Add
- References...
- Class Wizard... Ctrl+Shift+X
- View Class Diagram
- Set as StartUp Project
- Debug
- Add Solution to Source Control...
- Cut Ctrl+X
- Paste Ctrl+V
- Remove Del
- Rename F2
- Unload Project
- Rescan Solution
- Open Folder in Windows Explorer
- Properties**



Lab Property Pages

Configuration: Active(Debug)

Platform: Active(Win32)

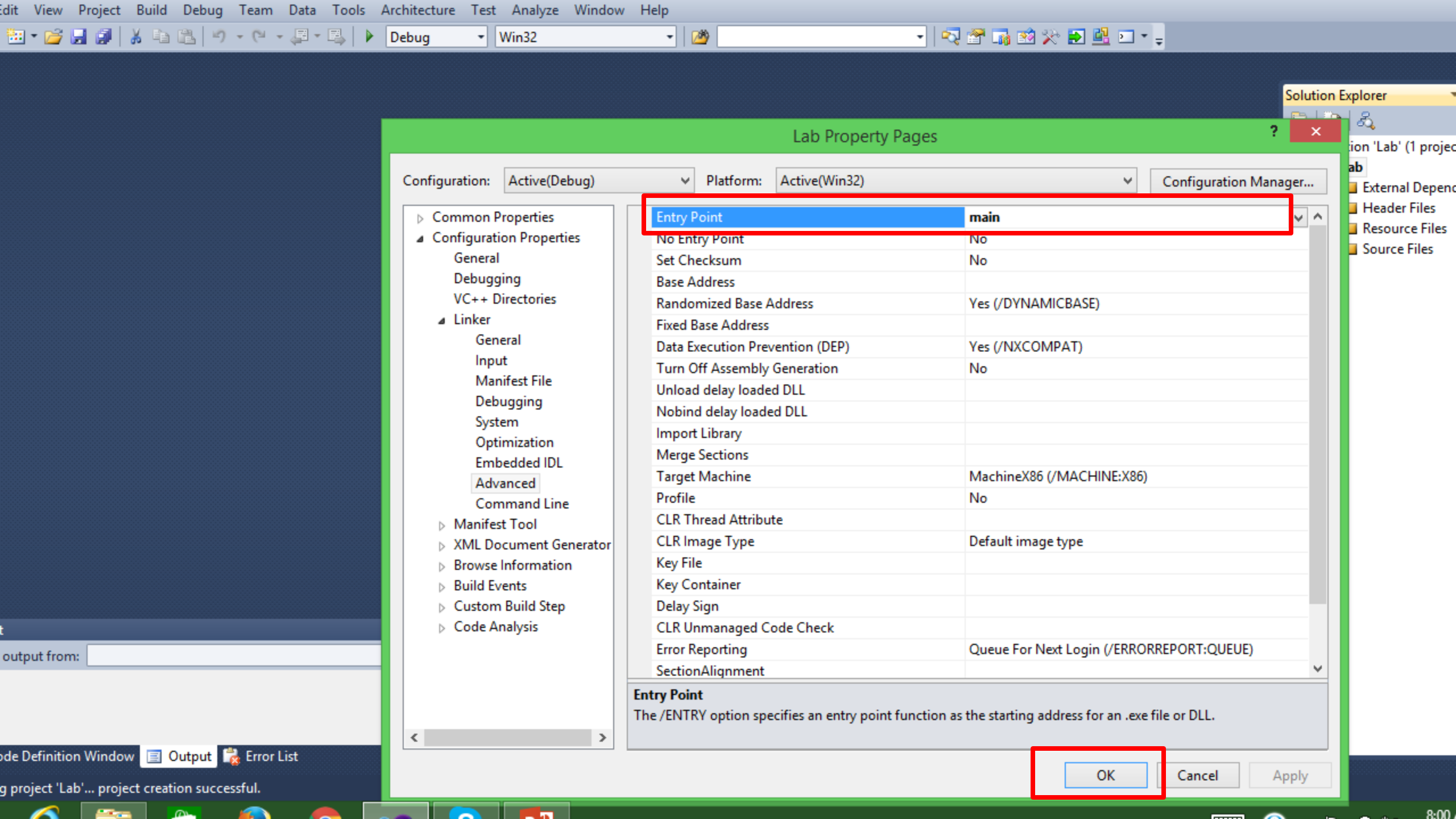
Configuration Manager...

- Common Properties
- Configuration Properties
 - General
 - Debugging
 - VC++ Directories
 - Linker
 - General
 - Input
 - Manifest File
 - Debugging
 - System
 - Optimization
 - Embedded IDL
 - Advanced
 - Command Line
 - Manifest Tool
 - XML Document Generator
 - Browse Information
 - Build Events
 - Custom Build Step
 - Code Analysis

Entry Point	
No Entry Point	No
Set Checksum	No
Base Address	
Randomized Base Address	Yes (/DYNAMICBASE)
Fixed Base Address	
Data Execution Prevention (DEP)	Yes (/NXCOMPAT)
Turn Off Assembly Generation	No
Unload delay loaded DLL	
Nobind delay loaded DLL	
Import Library	
Merge Sections	
Target Machine	MachineX86 (/MACHINE:X86)
Profile	No
CLR Thread Attribute	
CLR Image Type	Default image type
Key File	
Key Container	
Delay Sign	
CLR Unmanaged Code Check	
Error Reporting	Queue For Next Login (/ERRORREPORT:QUEUE)
SectionAlignment	

Entry Point
The /ENTRY option specifies an entry point function as the starting address for an .exe file or DLL.

OK Cancel Apply



Lab Property Pages

Configuration: Active(Debug)

Platform: Active(Win32)

Configuration Manager...

- Common Properties
- Configuration Properties
 - General
 - Debugging
 - VC++ Directories
 - Linker
 - General
 - Input
 - Manifest File
 - Debugging
 - System
 - Optimization
 - Embedded IDL
 - Advanced
 - Command Line
- Manifest Tool
- XML Document Generator
- Browse Information
- Build Events
- Custom Build Step
- Code Analysis

Entry Point	main
No Entry Point	No
Set Checksum	No
Base Address	
Randomized Base Address	Yes (/DYNAMICBASE)
Fixed Base Address	
Data Execution Prevention (DEP)	Yes (/NXCOMPAT)
Turn Off Assembly Generation	No
Unload delay loaded DLL	
Nobind delay loaded DLL	
Import Library	
Merge Sections	
Target Machine	MachineX86 (/MACHINE:X86)
Profile	No
CLR Thread Attribute	
CLR Image Type	Default image type
Key File	
Key Container	
Delay Sign	
CLR Unmanaged Code Check	
Error Reporting	Queue For Next Login (/ERRORREPORT:QUEUE)
SectionAlignment	

Entry Point

The /ENTRY option specifies an entry point function as the starting address for an .exe file or DLL.

OK

Cancel

Apply

Solution Explorer

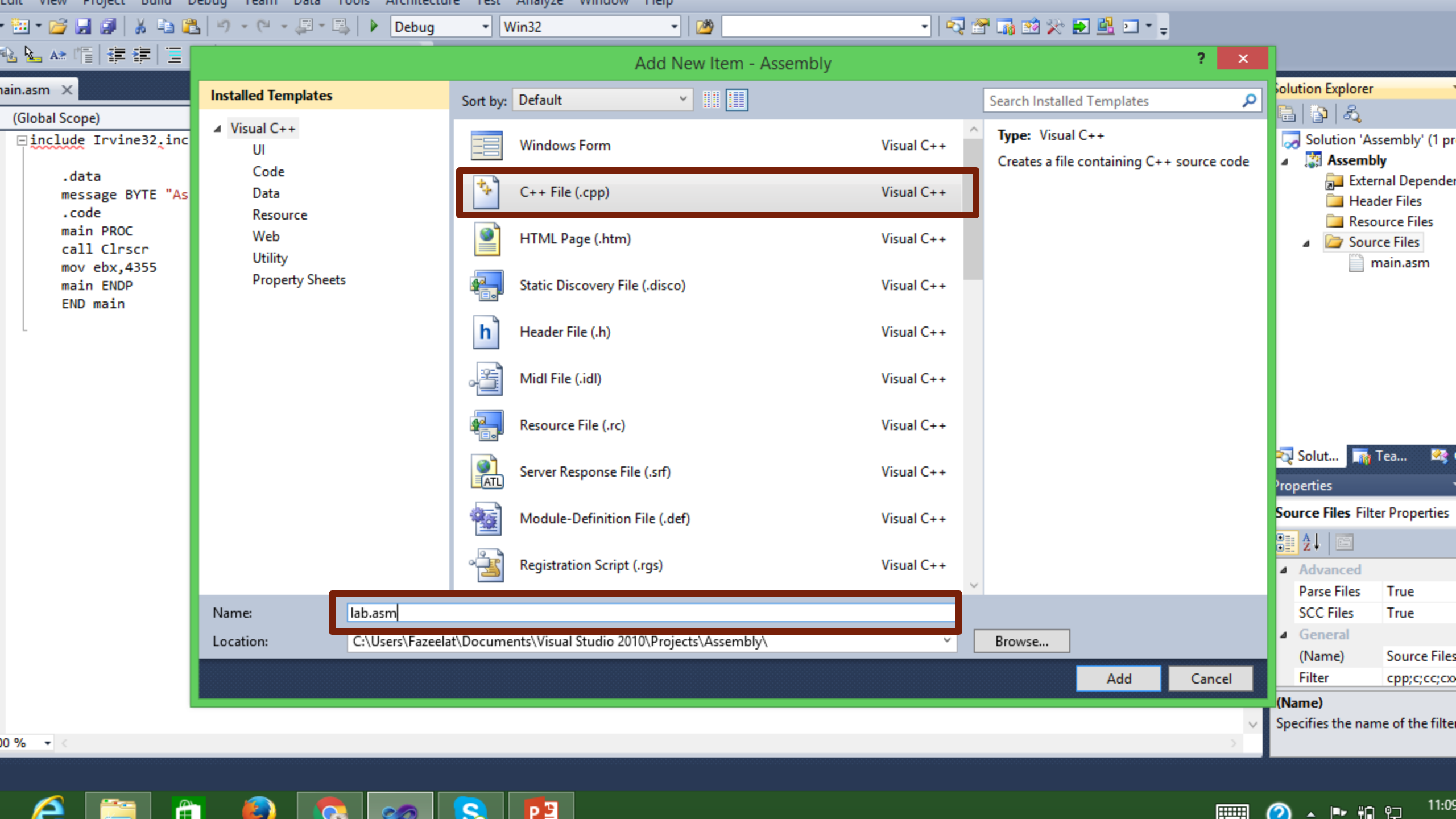
- Solution 'Lab' (1 project)
 - Lab
 - External Dependencies
 - Header Files
 - Resource Files

- New Item... Ctrl+Shift+A
- Existing Item... Shift+Alt+A
- New Filter
- Class...
- Resource...

Add

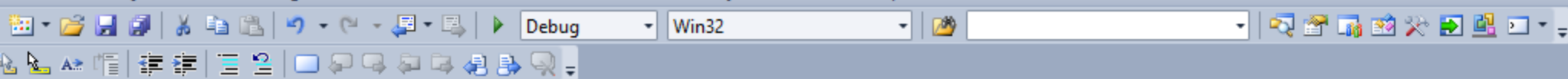
- Class Wizard... Ctrl+Shift+X
- Cut Ctrl+X
- Copy Ctrl+C
- Paste Ctrl+V
- Delete Del
- Rename F2
- Properties

Output from:





MASM in Debug Mode



m X

Global Scope)

include Irvine32.inc

.code

main proc

mov eax,1234h

mov ebx,eax

mov ecx,3424

add eax,ebx

sub ecx,edx

exit

main endp

end main

Now Press F10

t

output from:

Code Definition Window Output Error List

Solution Explorer



Solution 'Lab' (1 project)

Lab

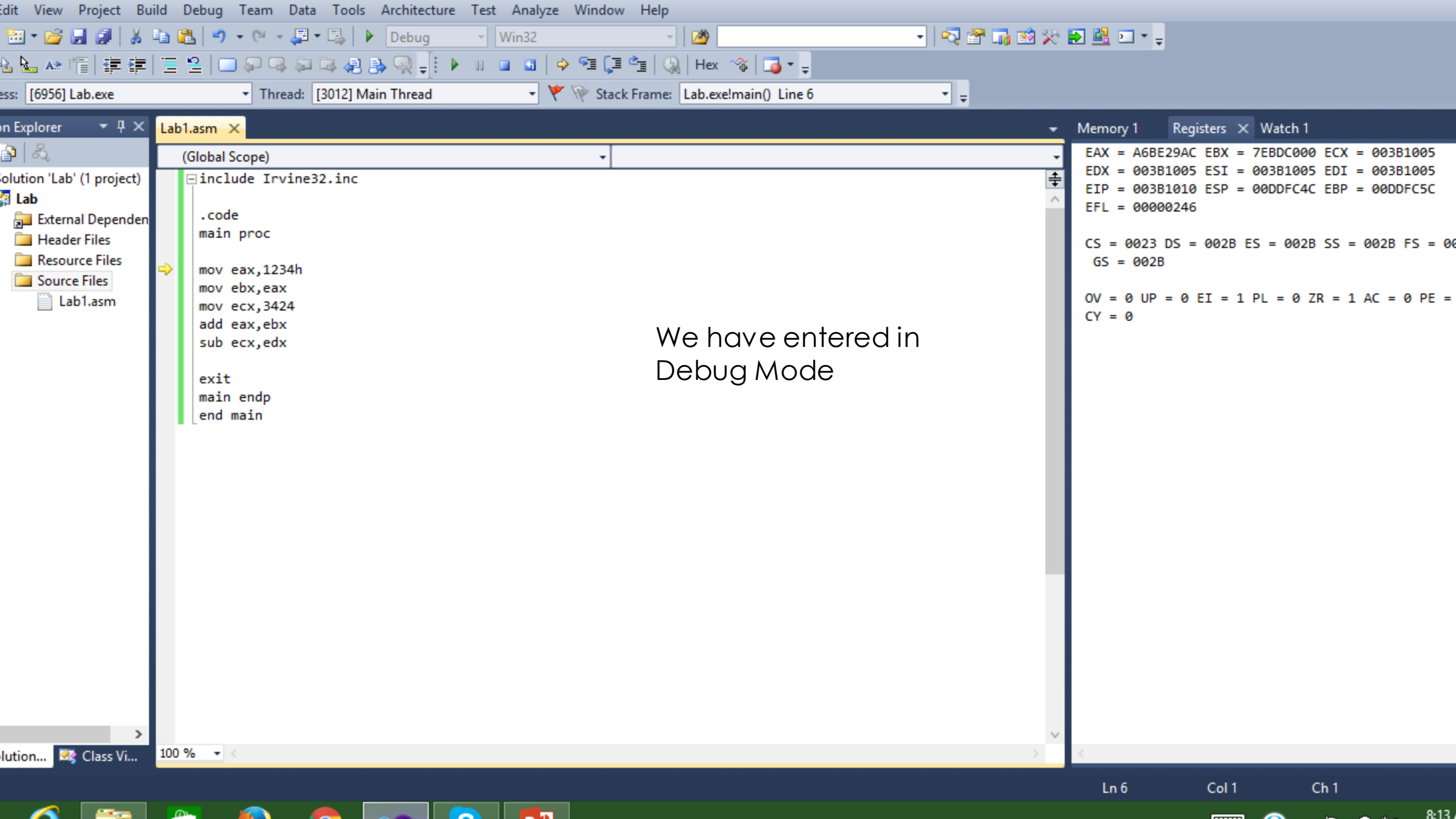
External Dependencies

Header Files

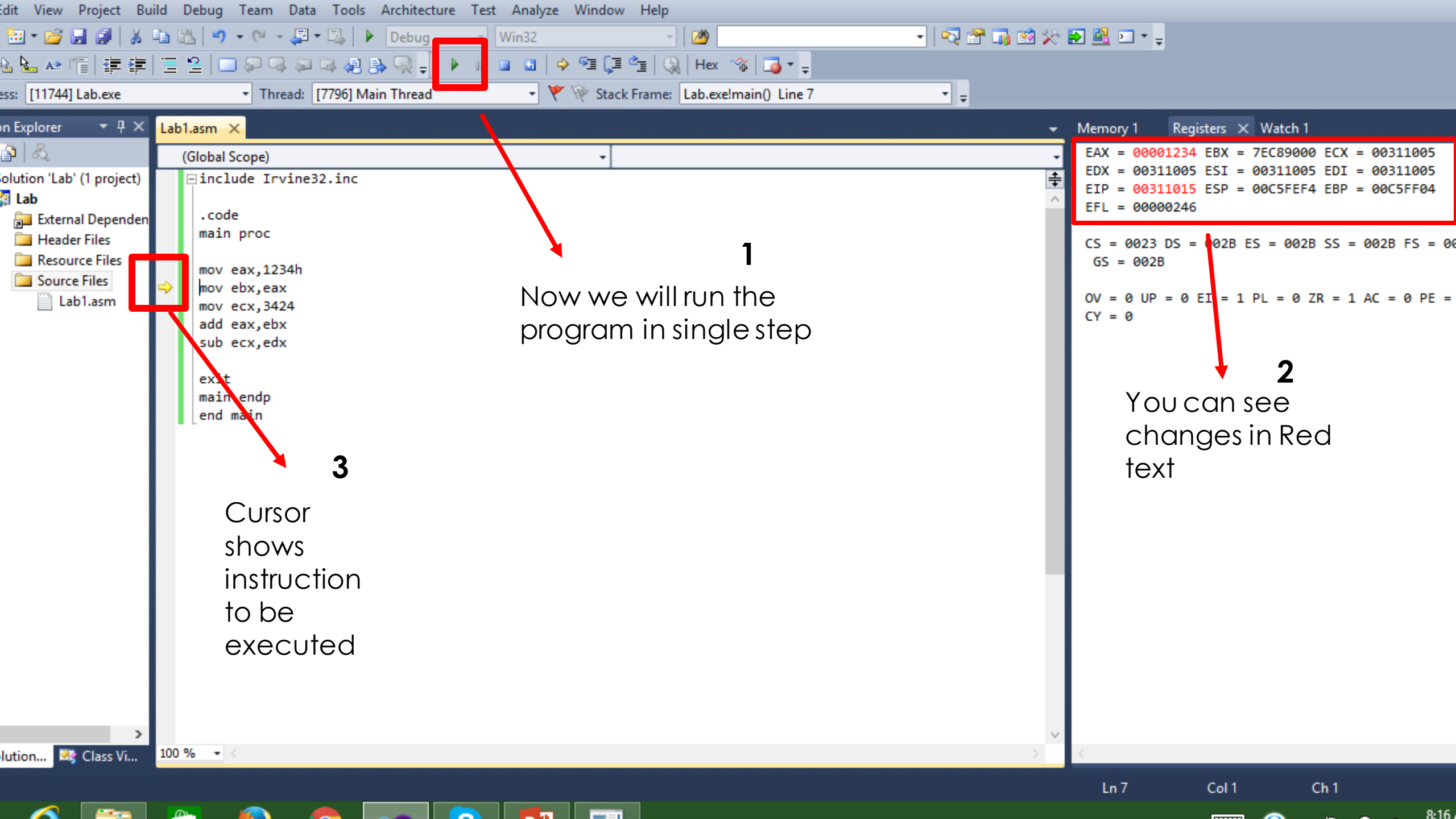
Resource Files

Source Files

Lab.asm



We have entered in
Debug Mode



1

Now we will run the program in single step

3

Cursor shows instruction to be executed

2

You can see changes in Red text