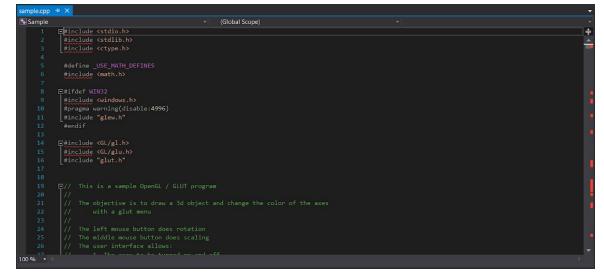
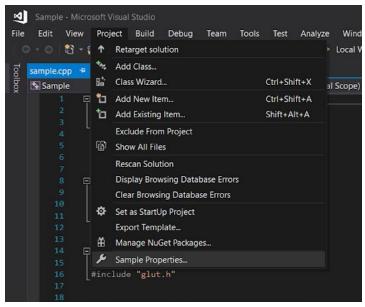
## Troubleshooting Common Issues with VS 2017

## Inclusions not Recognized

When opening Sample2017 up for the first time, you may be confronted by code that has red underlines on inclusions. If you try to build at this point, a whole bunch of inclusion errors will be reported:



If this is the case, you will want to go to >Project>Sample Preferences in the toolbar:



This should cause a window to pop up. In order to fix your issue, you will need to change the Windows SDK Version to inherit from parent or project defaults.

nfiguration:	Active(Debug)	<ul> <li>Platform: Active(Win32)</li> </ul>	<ul> <li>Configuration Manager.</li> </ul>				
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		Use of MFC	Use Standard Windows Libraries				
		Character Set	Use Multi-Byte Character Set				
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		.NET Target Framework Version					
		Whole Program Optimization	No Whole Program Optimization				
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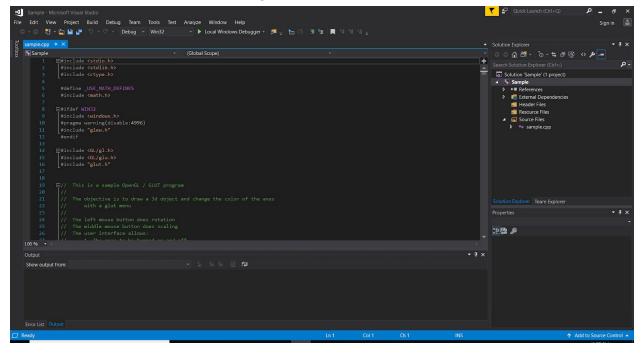
## Be sure to hit APPLY after changing the SDK version:

ample Property			? ×					
Configuration:	Active(Debug)	V Platform: Active(Win32)	<ul> <li>Configuration Manager</li> </ul>					
▲ Configuration	on Properties	✓ General						
General		Target Platform	Windows					
Debuggi	ng	Windows SDK Version	8.1					
VC++ Directories C/C++ Linker Manifest Tool XML Document Generator Browse Information Build Events		Output Directory	.\Debug\					
		Intermediate Directory	.\Debug\					
		Target Name	\$(ProjectName)					
		Target Extension	.exe					
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		Build Log File	\$(IntDir)\$(MSBuildProjectName).log					
		Platform Toolset	Visual Studio 2017 (v141)					
Custom E		Enable Managed Incremental Build	No					
▷ Code An	alysis	✓ Project Defaults						
		Configuration Type	Application (.exe)					
		Use of MFC	Use Standard Windows Libraries					
		Character Set	Use Multi-Byte Character Set					
		Common Language Runtime Support	No Common Language Runtime Support					
		.NET Target Framework Version						
		Whole Program Optimization	No Whole Program Optimization					
		Windows Store App Support	No					
		Target Platform						
		The current target platform of the project.						
			OK Cancel Apply					

Once this is done, change the SDK Version back again, hitting APPLY:

onfiguration: Active(Debug)	V Platform: Active(Win32)	<ul> <li>Configuration Manager</li> </ul>				
Configuration Properties	✓ General					
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Debugging	Windows SDK Version	8.1				
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▷ C/C++	Intermediate Directory	.\Debug\				
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	Windows Store App Support	No				
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Active(Debug)       Configuration Properties       General       Debugging       VC++ Directories       ▷ C/C++       ▷ Linker       ▷ Manifest Tool       ▷ XML Document Generator       ▷ Browse Information       ▷ Build Events       ▷ Custom Build Step	General     Target Platform     Windows SDK Version     Output Directory     Intermediate Directory     Intermediate Directory     Target Name     Target Extension     Extensions to Delete on Clean     Build Log File     Platform Toolset     Enable Managed Incremental Build     Project Defaults     Configuration Type     Use of MFC     Character Set     Common Language Runtime Support     .NET Target Framework Version	?       >         Vindows 10       10.0.16299.0         10.0.16299.0       .         .       >Debug         .       \$(ProjectName)         .exe       *.cdf;*.cache;*.obj:*.obj.enc;*.ilk;*.ipdb;*.iobj;*.resources;*.tlb;*.tli;*.tli;         \$(IntDir)\$(MSBuildProjectName).log       Visual Studio 2017 (v141)         No       Application (.exe)         Use Standard Windows Libraries       Use Multi-Byte Character Set         No Common Language Runtime Support				
Active(Debug)       Configuration Properties       General       Debugging       VC++ Directories       ▷ C/C++       ▷ Linker       ▷ Manifest Tool       ▷ XML Document Generator       ▷ Browse Information       ▷ Build Events       ▷ Custom Build Step	<ul> <li>General</li> <li>Target Platform</li> <li>Windows SDK Version</li> <li>Output Directory</li> <li>Intermediate Directory</li> <li>Target Extension</li> <li>Extensions to Delete on Clean</li> <li>Build Log File</li> <li>Platform Toolset</li> <li>Enable Managed Incremental Build</li> <li>Project Defaults</li> <li>Configuration Type</li> <li>Use of MFC</li> <li>Character Set</li> <li>Common Language Runtime Support</li> <li>NET Target Framework Version</li> <li>Whole Program Optimization</li> </ul>	?       >         Configuration Manager         Windows 10         10.0.16299.0         .\Debug\				
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Active(Debug)       Configuration Properties       General       Debugging       VC++ Directories       ▷ C/C++       ▷ Linker       ▷ Manifest Tool       ▷ XML Document Generator       ▷ Browse Information       ▷ Build Events       ▷ Custom Build Step	<ul> <li>General</li> <li>Target Platform</li> <li>Windows SDK Version</li> <li>Output Directory</li> <li>Intermediate Directory</li> <li>Target Extension</li> <li>Extensions to Delete on Clean</li> <li>Build Log File</li> <li>Platform Toolset</li> <li>Enable Managed Incremental Build</li> <li>Project Defaults</li> <li>Configuration Type</li> <li>Use of MFC</li> <li>Character Set</li> <li>Common Language Runtime Support</li> <li>NET Target Framework Version</li> <li>Whole Program Optimization</li> </ul>	? > Configuration Manager Windows 10 10.0.16299.0 .\Debug\ .Visual Studio 2017 (v141) No Application (.exe) Use Standard Windows Libraries Use Multi-Byte Character Set No Common Language Runtime Support No Whole Program Optimization				
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When you exit out of the window, the include lines should no longer have red lines under them, meaning that Visual Studio took the hint and now recognizes the inclusions as valid.



## Trouble including heli.550 in your project

If you have not already, it is suggested that you get the contents of heli.550 off of the class website:

web.engr.orego: × G parallel buo	ddy 🛛 🗙 🛛 XMalloc: A Scalable 🗙 🖉 Space efficient : X 🛛 final-conf-paper.dvi X 🔄 Space efficient : X 🍐 My Drive - Goog X	K 🔽 Revised Bit Layo 🗙 🔞 New Tab	× +	- 0	×
↔ ∀ ✿	(1) web.engr.oregonstate.edu/~mjb/cs550/Projects/heli.550	🗉 ♥ ☆	7	2 III\ 🗊 🤨	Ξ
struct point					
{ float x, y, z; };					
struct edge					
int p0, p1;					
struct tri					
<pre>(     int p0, p1, p2; );</pre>					
int Helinpoints = 493; int Helinedges = 1216; int Helintris = 1900;					
<pre>struct point Relipoints() = (</pre>	33E },         34E },         4f },         5f },         3f ],         2f ],         2f ],         2f ,         2f ,         2f ,         2f ,         2f ,         2f ],         3f ], <th></th> <th></th> <th></th> <th></th>				

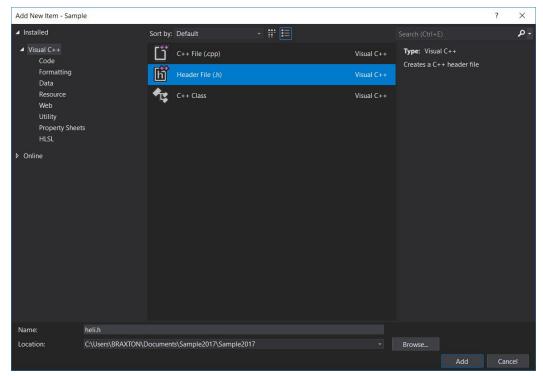
You then want to add another file to the sources folder:

외 Sample - Microsoft Visual Studio				💙 🖓 Quick Launch (Ctrl-	•Q <b>P _ 6</b> 7
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g heli.cpp sample.cpp • × Sample • (Global Scope)				Solution Explorer	<b>~</b> ₽,
हुर् 🖪 Sample - (Global Scope)				- o o 🏠 🛗 - 'o - t	; # 🕲 🌶 🗕
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8 ⊟#ifdef WIN32 9  #include <windows.h></windows.h>				Solution 'Sample' (1 pr	
10 #pragma warning(disable:4996)				▲ Sample	ojeci)
11 #include "glew.h"				Sample Image: Sample	
				External Depend	lenries
				Header Files	
				Resource Files	
	1 New Item	Ctrl+Shift+A	Add		ð.
17 18 #include "heli.cpp"	눱 Existing Item	Shift+Alt+A	Class Wizard.	Ctrl+Shift+X	
	Contract New Filter		Scope to This		
	** Class		New Solution	Explorer View	
	** Resource		光 Cut	Ctrl+X	
22 // The objective is to draw a 3d object and change the color of the axes 23 // with a glut menu	+ nesource		б Сору	Ctrl+C	
23 // with a glut menu 24 //					
25 // The left mouse button does rotation					
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			Properties	Alt+Enter	
29 // 2. The color of the axes to be changed					- <b>4</b> ;
30 // 3. Debugging to be turned on and off 31 // 4. Depth cueing to be turned on and off				Source Files Filter Propertie	
32 // 5. The projection to be changed				II 🔁 🖉	
100 % 👻 🖉				SCC Files	True
			<b>-</b> q	× E General	
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<sup>3</sup> Code Description	Brainet	File	Line	Filter	cpp;c;cxx;rc;def;r;odl;idl;hpj;bat
	Project		Line 1145	Unique Identifier	(69ce3615-2996-46cf-949c-03c
C4244 'initializing': conversion from 'double' to 'float', possible loss of data  LINK4075 ignoring '/EDITANDCONTINUE' due to '/INCREMENTAL:NO' specification	Sample	sample.cpp	1145		
	Sample	heli.obj			
S LNK2005 "int Helinpoints" (?Helinpoints@@3HA) already defined in heli.obj	Sample	sample.obj			
S LNK2005 "int Helinedges" (?Helinedges@@3HA) already defined in heli.obj	Sample	sample.obj		(Name)	
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Error List Output					
This item does not support previewing	Ln 30 Col 45	Ch 41			↑ Add to Source Control

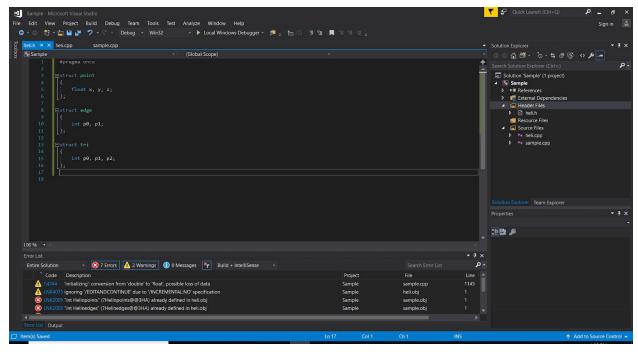
Unfortunately our "heli.cpp" file is not enough. Visual Studio does not generally like the practice of including source files, preferring the much more idiomatic use of header files. So, we end up with a lot of extra inclusions under the hood due to Visual Studio's linking scheme and the build fails:

100 % - 1								
Error List								
Entire Solution	- 😢 7 Errors	🚹 2 Warnings 🛛 🕕	0 Messages 🏻 🌴	Build + IntelliSense			۶	D - C
<sup>¬</sup> Code	Description				Project	File	Line	
🔥 C4244	initializing': conversion fror	n 'double' to 'float', p	ossible loss of data		Sample	sample.cpp	1145	
🔥 LNK4075 i	gnoring '/EDITANDCONTIN	IUE' due to '/INCREMI	ENTAL:NO' specificat	ion	Sample	heli.obj		
🔇 LNK2005	'int Helinpoints" (?Helinpoi	nts@@3HA) already of	defined in heli.obj		Sample	sample.obj		
🔇 LNK2005 *	'int Helinedges" (?Helinedg	es@@3HA) already o	defined in heli.obj		Sample	sample.obj	1	
🔇 LNK2005 *	'int Helintris" (?Helintris@@	3HA) already defined	d in heli.obj		Sample	sample.obj		

You will need to break your source file into a source file and a header file, for the sake of this example, we'll just name it "heli.h":



First, you should move the struct declarations out of the source file and into the header file:



Also, be sure to include the header file in the source file:

	🖆 💾 🤔 🎾 - 🗘 - Debug - Win32 - 🕨 Local Windows Debugger - 🇯 🖕 🛅 👘	월 <b>월   📕</b> 위 위 위 위 🚽				
li.h h Sample	eli.cpp + × sample.cpp			-	Solution Explorer	
	#include "heli.h			+		
				<u> </u>		
	<pre>int Helinpoints = 493;</pre>			- E	Solution 'Sample' (1 project)	
	int Helinedges = 1216;				▲ 🔄 Sample	
	int Helintris = 1900;				References	
					External Dependencies	
	<pre>struct point Helipoints[] = {</pre>				<ul> <li>Header Files</li> <li>Image: Image: Image</li></ul>	
	{ -10.49f, 1.25f, -0.93f },				Resource Files	
	{ -10.21f, 1.33f, -0.89f },				✓ Source Files	
	{ -9.73f, 1.45f, -0.74f }, { -9.71f, 1.46f, -0.95f },				*+ heli.cpp	
	{ -9.7f, 1.46f, -0.95f }, { -9.67f, 1.60f, -0.83f },				*+ sample.cpp	
	{ -9.64f, 1.61f, -0.79f },					
	{ -9.63f, 1.61f, -0.87f },					
	{ -9.30f, 1.38f, -0.72f },					
	{ -9.30f, 1.47f, -0.80f },					
	{ -9.29f, 1.44f, -0.74f }, { -9.28f, 1.39f, -0.89f },					
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ntire Solution	🔹 🔹 🔨 7 Errors 🛕 2 Warnings 🕕 0 Messages 🏋 🛛 Build + IntelliSense 🔹			- م		
Code	Description	Project		Line 🚖		
	'initializing': conversion from 'double' to 'float', possible loss of data	Sample	sample.cpp	1145		
A LNK40	75 ignoring '/EDITANDCONTINUE' due to '/INCREMENTAL:NO' specification	Sample	heli.obj			
	05 "int Helinpoints" (?Helinpoints@@3HA) already defined in heli.obj	Sample	sample.obj			
🔇 LNK20	05 "int Helinedges" (?Helinedges@@3HA) already defined in heli.obj	Sample	sample.obj			
-						

Lastly, you will need to declare the variables in the source file in the header file. Be sure to give them the "extern" descriptor:

Sample - Microsoft Visual Studio							Cuick Launch (Ctrl+Q)	× ہے م
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형 <mark>heli.h ㅋ ×</mark> heli.cpp sample	cpp					-	Solution Explorer	<del>-</del> ‡ ×
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1 #pragma once						÷		.م
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🗇 Ready			Ln 23	Col 8	Ch 8	INS		Add to Source Control 🔺

Once this is done, verify that you are including the header file in both source files and no source files in any of the files, then try to build again. So long as there are no unrelated errors in the project, it should build successfully:

