

## How to install Audacity with ASIO incorporated

Essentially, you should just have to follow the instructions on the Audacity Wiki ([https://wiki.audacityteam.org/wiki/Building\\_On\\_Windows](https://wiki.audacityteam.org/wiki/Building_On_Windows) this link will have the Instructions to build Audacity on the top and further down the instructions to incorporate ASIO, for more information go to [https://manual.audacityteam.org/man/asio\\_audiodio\\_interface.html](https://manual.audacityteam.org/man/asio_audiodio_interface.html)). However, there is the possibility that even if you did everything right problems arise.

In this document, I will list Problems, and my Solutions, I encountered at different points during the process, feel free to add your own but please add important Information like, a date, update versions, (username or something similar) and so on.

I am also going to be further explaining what you are supposed to do and how I did it, in an effort to clear up possible confusions.

All directories are described in the way they are for me you may have to adjust a few things.

1. It should not be any problem for anybody to install Visual Studio 2017 since the link is provided and you can just install it like any other Program one could install from the internet.

However, because the 2017 version isn't the newest one the provided link on the Wiki doesn't directly lead to it, for that use this link. <https://visualstudio.microsoft.com/de/vs/older-downloads/?rr=https%3A%2F%2Fdocs.microsoft.com%2Fen-us%2Fvisualstudio%2Finstall%2Finstall-visual-studio%3Fview%3Dvs-2017>

2. Git should still be no problem to install since the provided link directly starts the download and you just have to click through the installation.

After installation, you should have three new Programmes in your start-menu (Git Bash, Git CMD (deprecated) and Git GUI) for audacity you will only need to use "Git Bash"; these programmes could be in a folder named "Git" but they don't have to.



*Symbol of the Git Programmes*

3. To get wxWidgets open Git Bash, then I recommend changing directories to C:\ before you make a directory called "wxWidgets" so you can find it easier later on. After you have done that, you have to change your directory again, this time to C:\wxWidgets. Now you need to clone wxWidgets from GitHub (described in the Wiki and Glossary).
4. Before you get on with building wxWidgets, you have to set a system variable called "WXWIN" to the folder where you cloned wxWidgets, delete setup.h (C:\wxWidgets\include\wx\msw), and rename setup0.h to setup.h (in the same folder). How to set a variable can be found on the Internet and in the glossary. After you set the variable, open the "Developer Command Prompt for VS 2017", you either find it in a folder in the start menu or by searching for it using the search bar Then change the directory to "%WXWIN%\build\msw", afterwards build using the command:  
nmake /f makefile.vc BUILD=release SHARED=1
5. To verify your build change the directory to "%WXWIN%\samples\minimal" and, using the same command as before, build the sample.

Now if you go to the folder C:\wxWidgets\samples\minimal\vc\_mswudll there should be a minimal.exe file, open it. If it doesn't work, search for the files it can't open (it should mention files it can't find in the error message) and copy them into the folder of the minimal.exe file. You may have to do this multiple times until it works.

The minimal.exe file should just open a small window, with which you can do little more than close it.

If it works now, congratulations, your build of wxWidgets works.

6. Now to get ASIO support, download the ASIO SDK from <https://www.steinberg.net/en/company/developers.html>, unpack it (since it is a .zip file) into C:\ASIOSDK and create a variable there.

7. To build Audacity you have to clone it from GitHub first, to do that open Git Bash again, change directories to C:\ and make one called Audacity. Now clone Audacity using this (<https://github.com/audacity/audacity/>) link instead of the one in the example, you can also leave the --recurse-submodules part away.
8. Now open Visual Studio 2017 and in it, open audacity.sln (C:\audacity\win). After opening it you shouldn't have to troubleshoot anything else, just choose release, instead of debug, leave it on Win32 and click "local Windows-Debugger" and now wait. If it opens, great you have successfully built audacity with ASIO support, don't be scared when you can't choose ASIO in the options, that is because you don't have an audio card, that supports ASIO connected or you don't have the needed drivers installed.  
After this success close Audacity and go to the audacity.exe (C:\audacity\win\Release) and try opening it from there, if it works great, else use the same trick as you used for the minimal.exe build but to make it easier on yourself copy everything from C:\wxWidgets\lib\vc\_dll.
9. Have a productive time using your audacity with ASIO support.

# Glossary

What?	Explanation
Change directories (In Git Bash)	Use the command <code>cd (your directory)*</code> *your directory should be written in a manner like this: <code>c:/Example/example</code>
Making a directory (In Git Bash)	Use the command <code>mkdir (the name of the directory you want to create)*</code> *This will create a folder with your chosen name. Do not use spaces in folder Names.
Cloning something from GitHub (In Git Bash)	Use the command <code>clone (--recurse-submodules)* (Link to the desired Project)**</code> *is optional as it just assures that the latest version of everything is cloned. **has to be in the same format as web links are. For example, to clone wxWidgets use <code>clone --recurse-submodules https://github.com/audacity/wxWidgets/</code>
Set a variable	Go into Settings and click on <b>System</b> . Then on the left side click About and select <b>System</b> info at the bottom. In the new Control Panel <b>window</b> that opens, click Advanced <b>system</b> settings on the left. Now in the new <b>window</b> that comes up, select <b>Environment Variables...</b> at the bottom. Then create a new System Variable by clicking on <b>New...</b> or if you already created one edit it by selecting it and clicking <b>Edit...</b> Else, you can just Type "variables" into the search bar and skip the first three Steps. Keep in Mind that you have to have Admin.
Change directories (In VS 2017 Command Prompt)	The same way as in Git Bash, but use <code>\</code> instead of <code>/</code> .