



How to Build Notepad++ from Source: A Beginner's Guide

OPTION B

Current Date: 5/16/2018
Revision: 1



Introduction

Participation in an open source project can be a rewarding and gratifying experience. This is particularly so when engaging software that one both admires and uses regularly, and that is held in the highest esteem by the software community at large (such as Notepad++). It can also be a very challenging experience, especially for those less experienced. This document is designed to provide a step-by-step guide for building a working Notepad++ executable from its source code, as available here:

<https://github.com/notepad-plus-plus/notepad-plus-plus/>. (As such, it chronicles one particular methodology for completing this end, and does not represent an exclusive path for successful compilation. An alternate "OPTION A" is provided in this same repository from which you accessed the current document.)

Requirements

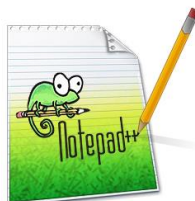
- **Visual Studio 2017 (or 2015) AND Visual Studio 2013**
 - Yes, you need both for this instruction set.
 - Try as he did, the author was unable to build successfully using just one or the other.
 - See [step 5 notes](#) for additional information.
 - Visual Studio 2015 should work in place of 2017.
 - "Should" because the author did not verify this directly, but is confident it will work.
 - Visual Studio Community 2013 and 2015 can be downloaded directly from Microsoft and do not require a product key: <https://www.visualstudio.com/vs/older-downloads/>
 - [See here for VS2017 system requirements](#)
 - [See here for VS2015 system requirements](#)
 - [See here for VS2013 system requirements](#)
- **Git Bash**
 - Or a similar means of downloading the Notepad++ repository from [github](#).
 - Git (which includes Git Bash) can be downloaded here: <https://git-scm.com/downloads>.
 - If you have a github account, downloading the Notepad++ repository can also be accomplished using github desktop, found here: <https://desktop.github.com/>.
 - If you don't have a github account, you should probably get one, here: <https://github.com/>.
- **Boost 1_55_0**
 - Available here: <https://sourceforge.net/projects/boost/files/boost/1.55.0/>.
 - Available in .zip or .7z format. .7z is recommended, but will require 7zip for extraction, available here: <https://www.7-zip.org/download.html>
- **Notepad++**
 - Install and run the latest version of Notepad++ before attempting these steps, available here: <https://notepad-plus-plus.org/download/>.

Time Commitment

- Approximately 30-90 minutes, depending on proficiency and hardware.

Assumptions

This document assumes that the target audience is at least marginally proficient in the use of Windows, and has at least minimal exposure to basic computer programming fundamentals, C++, and (of course) Notepad++.





Tip: If screenshots appear too small for viewing, using a “zoom” feature such as that offered by Windows or Adobe Acrobat can be helpful!

Follow Steps:

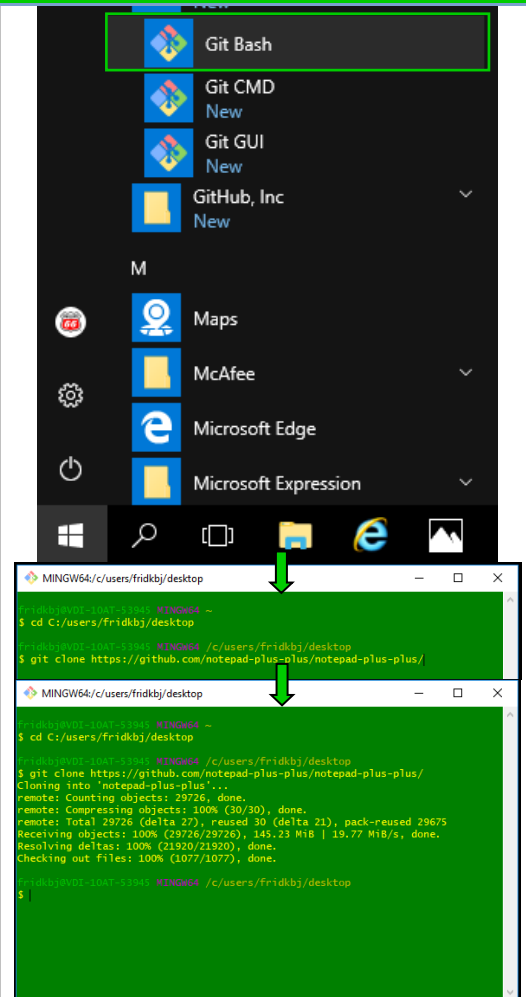
1. GET NOTEPAD++ REPOSITORY

- a) Open Git Bash.*
- b) Change to the directory you wish to save the Notepad++ repository.
 - Use the `cd` command to change directory.
 - Note Git Bash uses slash (/) rather than backslash (\) for pathways.
- c) Type

```
git clone https://github.com/notepad-plus-plus/notepad-plus-plus/.
```

Then hit **enter**. Wait for the cloning process to finish.

*Git Bash may not be available in the Windows start menu as shown in the screenshot, depending on your installation configuration. If it is not shown there, locate it or download it as necessary in order to launch. Note also that this step may be completed using an alternate means, such as Github Desktop, as mentioned in the requirements section above.





2. GET BOOST

- a) If you haven't already done so, download and extract **boost_1_55_0** (available [here](#)) to a directory of your choosing. (Note this step may take 30+ minutes.)

The screenshot shows the Boost C++ Libraries website with the 'Download Latest Version' button highlighted. Below the website, a Windows File Explorer window shows the 'BOOST' folder containing the downloaded 'boost_1_55_0.zip' file. A context menu is open over the file, with 'Extract Here' selected. A green arrow points from the 'Extract Here' option to a Windows Explorer window showing the extraction progress. The extraction window displays the following information:

2% Extracting C:\Users\fridkby\Downloads\boost_1_55_0.zip	
Elapsed time:	00:00:07
Remaining time:	00:04:05
Files:	1368
Compression ratio:	66%
Total size:	375 M
Speed:	1524 KB/s
Processed:	10834 K
Compressed size:	7168 K

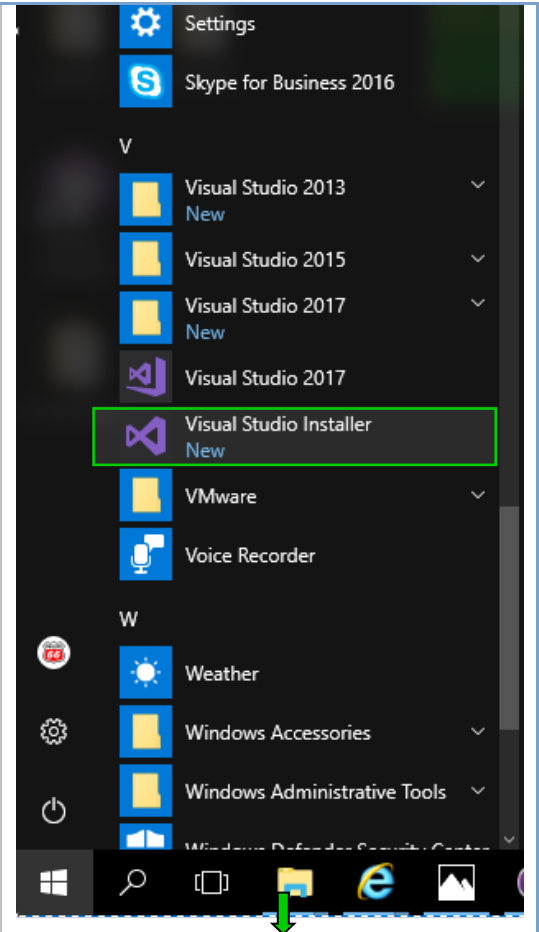
The extraction window also shows the file path 'C:\Users\fridkby\Downloads\boost_1_55_0\lib\math\doc\equations\gamma_ratio1.png' and a progress bar at the bottom.



3. ESTABLISH VISUAL STUDIO C++ DEPENDENCIES

- a) Both Visual Studio 2013 and 2017 (or 2015*) must be installed with C++ compiling tools. Open the installers (available [here](#)) for each to check if these tools are already installed.
- b) Once opened, click “Modify” to check the status of installed toolsets. Make sure “Desktop development with C++” is selected, with all default options checked. If using VS2017, add the following additional option (under “Summary->Desktop development with C++->Optional”) if not already selected:
 - VC++ 2015.3 v14.00 (V140) toolset for desktop
- c) If changes are required, click “Modify” again (or “Update” for VS2013), and wait for installation to complete.


*Screenshots for VS2015 are not shown, and VS2015 appearance may differ accordingly.



Visual Studio Installer

Products

Installed

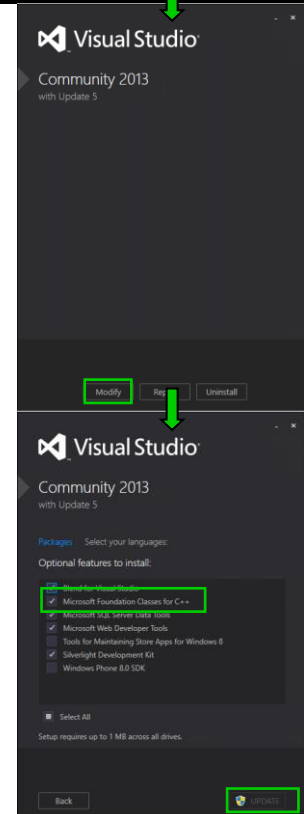
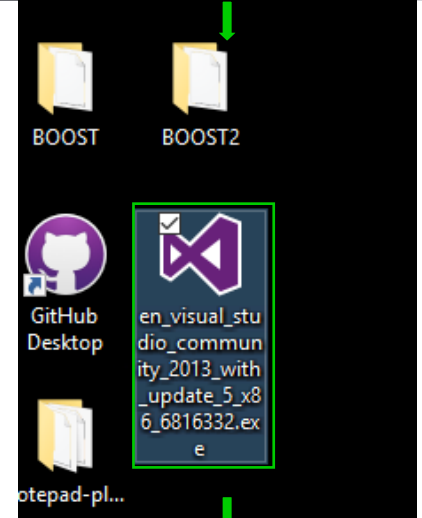
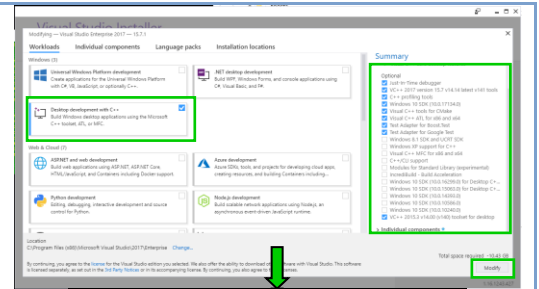
 Visual Studio Enterprise 2017
15.7.1
Microsoft DevOps solution for productivity and coordination across teams of any size

[Release notes](#)

Modify

Launch

More ▾





4. BUILD SCILEXER.DLL

- a) Open VS2013 x64 Native Tools Command Prompt*. Change the directory to `scintilla\boostregex` within the Notepad++ repository cloned in step 1.

e.g. If your Notepad++ repository is located at `C:\users\me\np++`, then use command

```
cd C:\users\me\np++\notepad-plus-plus\scintilla\boostregex
```

- b) Type

```
BuildBoost.bat ~pathway to boost_1_55_0~ -x64,
```

Where ~pathway to boost_1_55_0~ is where you extracted boost_1_55_0 in step 2.

e.g. If you extracted boost_1_55_0 in C:\sources, then type

```
BuildBoost.bat C:\sources\boost_1_55_0 -x64
```

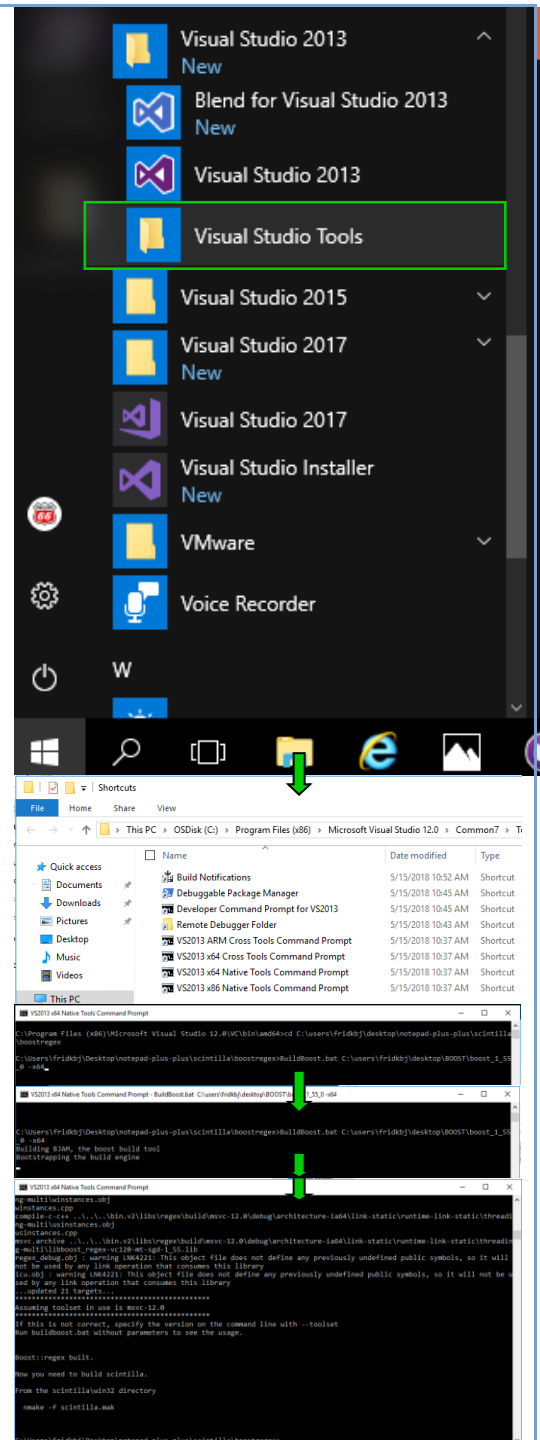
- c) Wait for script to finish. If successful, you will see

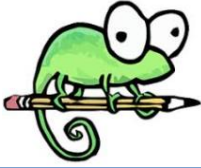
"Now you need to build scintilla."

followed by instructions for doing so at the end of the console output (as shown in the final screenshot for this step).

*If VS2013 x64 Native Tools Command Prompt is not available in the Windows start menu (as shown in the screenshot), try this location:

```
C:\Program Files (x86)\Microsoft Visual Studio 12.0\Common7\Tools\Shortcuts
```





d) Change directory to `\scintilla\win32` (within Notepad++ repository: see a) for example, but replace “boostregex” with “win32”).

e) Type

```
nmake -f scintilla.mak
```

Wait for make process to complete. Upon completion, you should see SciLexer.dll in `\scintilla\bin` (within Notepad++ repository).

The screenshot shows a Windows command prompt window with the following commands and output:

```
scitell@regre build.
Now you need to build scitella.
Go to the scitella\win32 directory
make -f scitella.mak

C:\Users\frdbj\Desktop\ntopad plus-plus\scitella\bootstrap>cd C:\Users\frdbj\Desktop\ntopad plus-plus\scitella\win32
C:\Users\frdbj\Desktop\ntopad plus-plus\scitella\win32>make scitella_mak
```

Below the command prompt, a File Explorer window shows the contents of the directory `C:\Users\frdbj\Desktop\ntopad plus-plus\scitella\win32\`. The file `scitella.exe` is highlighted with a green box, indicating it has been successfully built. The file's properties are:

Name	Date modified	Type	Size
scitella.exe	5/16/2018 10:20:00	Application extension	1,284 KB
scitella.lib	5/16/2018 10:20:00	Object File Library	1 KB
scitella.o	5/16/2018 10:20:00	Object File Library	2 KB
scitella.pch	5/16/2018 10:20:00	Precompiled header	2,000 KB
scitella.rc	5/16/2018 10:20:00	Resource	703 KB
scitella.res	5/16/2018 10:20:00	Resource	1 KB
scitella.tlb	5/16/2018 10:20:00	Object File Library	2 KB
scitella.vcxproj	5/16/2018 10:20:00	Project file	4,000 KB



5. BUILD NOTEPAD++.EXE*

- a) Launch Visual Studio 2017 or 2015 (screenshots show 2017). Open “notepadPlus.vcxproj”, located at **\PowerEditor\visual.net** (within the Notepad++ repository).

Click OK on VS “Source Control-Git” popup. (Screenshot not shown).

- b) If desired, make a test change so that once the working executable is created, you can ensure it is from your build. For instance, you can change the text in the popup that results from attempting to close an unsaved file (or close the program with an unsaved file open) by modifying line 1850** of Notepad_plus.cpp. (Screenshots not shown.)

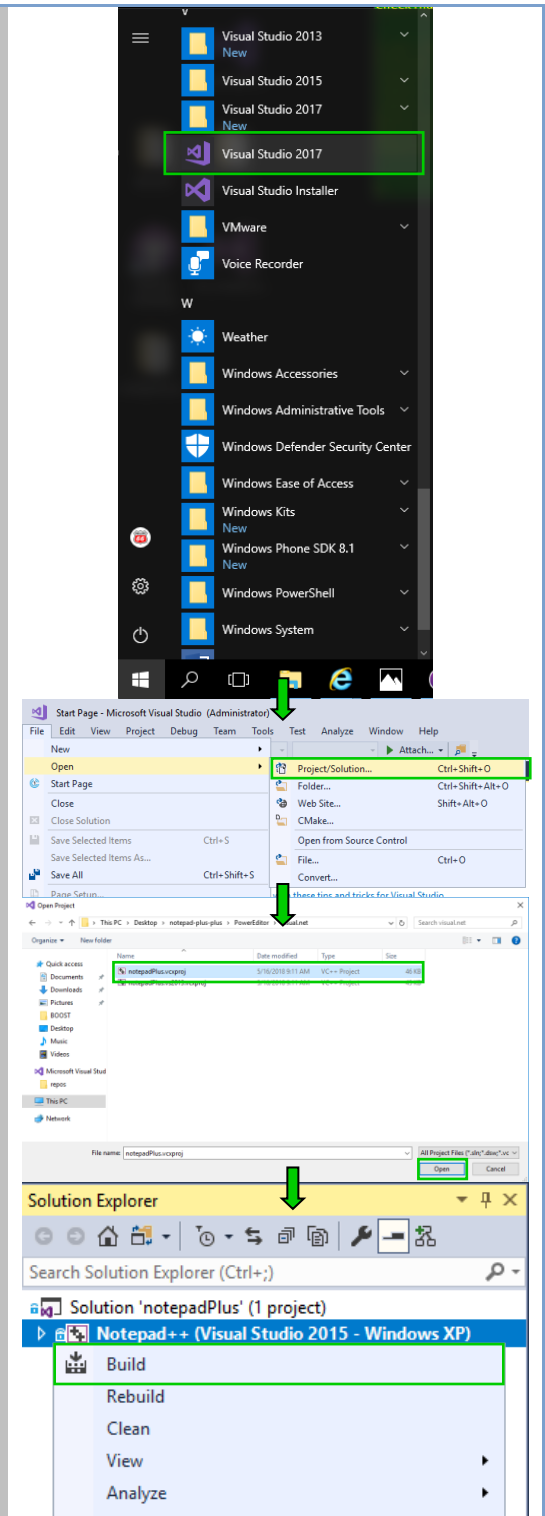
- c) Build the solution.

Three ways to build:

- Right-click on Notepad++ in the Solution Explorer and select “Build”.
- Under the “Build” top-menu options, select “Build Solution”.
- Use shortcut Ctrl + Shift + B

*The Notepad++ repository also contains “notepadPlus.vs2013.vcxproj” (also at **\PowerEditor\visual.net**). The author of this document was unable to successfully build notepad++.exe using notepadPlus.vs2013.vcxproj and VS2013. However, if one can successfully do so, this procedure can otherwise be completed using VS2013 exclusively.

**Line number is subject to change as new versions of Notepad++ are released.





6. LAUNCH

The final step is to copy SciLexer.dll from `\scintilla\bin` (within the Notepad++ repository) to `\PowerEditor\visual.net\x64\Unicode Debug` (within the Notepad++ repository).

Once completed, launch your own build of notepad++.exe!

- The VS build of notepad++.exe is also found in:

`\PowerEditor\visual.net\x64\Unicode Debug`

- If you move notepad++.exe to a different directory, you must move SciLexer.dll with it.

