Studica Robotics

Release 0.0.1

Fred

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WORLD SKILLS

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CHAPTER

ONE

WORLD SKILLS SOFTWARE SETUP GUIDE

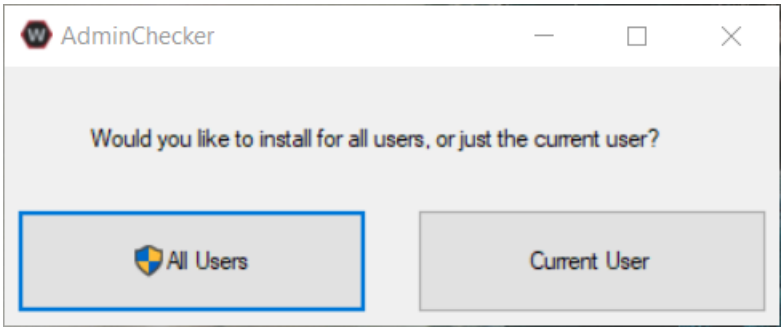
Note: This setup is for Java/C++ only

Windows

Online Installer

Warning: Windows 7: You **must** install the standalone version of .NET Version 4.62+ which can be found here.

Download the installer (32bit or 64bit) from WPI.

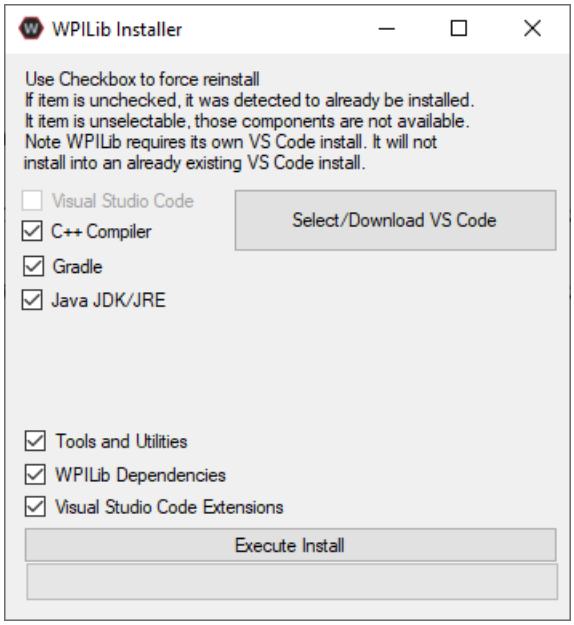


Installing for *All Users* will require admin privileges and install for all users on the machine.

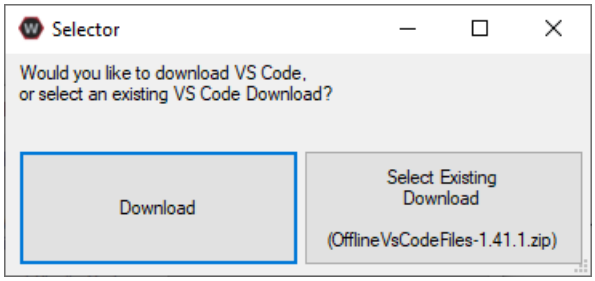
Note: Software will be installed to `C:\Users\Public\wpilib\YYYY`. YYYY Corresponds to the currently suppored year.

Download VS Code

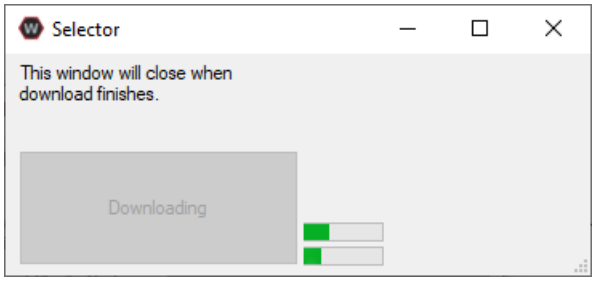
Due to licensing reasons with VS Code the installer does not contain it bundled in. To overcome this hit the *Select/Download VS Code* button.



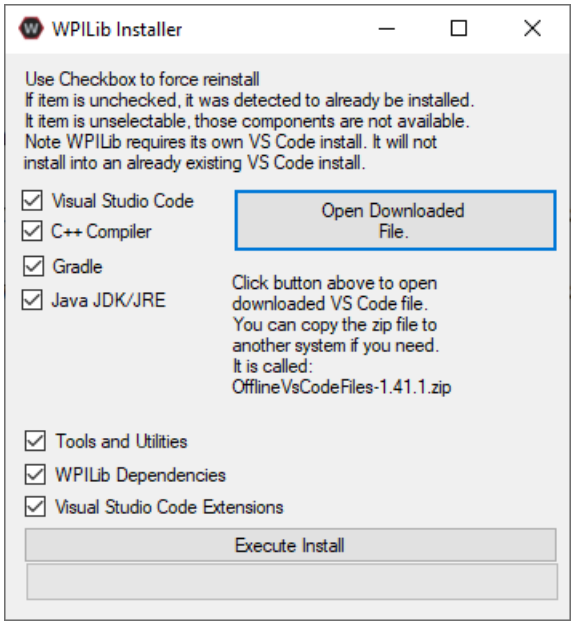
This will open up the selector tool.



Select the *Download* option and VS Code will be downloaded.



Once VS Code is downloaded the window will auto change back to the installer window and *Execute Install* can be run.



What was just Installed

- *Visual Stuido Code* - The prefered and suppored IDE for robot code development.
- *C++ Compiler* - Toolchains required for building C++ code.
- *Java JDK/JRE* - Specific version of the JDK/JRE that is used to build code.
- *Gradle* - Specific version of Gradle used for building and deploying Java or C++ code to the VMXpi
- *WPILib Tools* - Tools used for robot enhancement
- *WPILib Dependencies* - OpenCV, etc.
- *VS Code Extensions* - WPILib extensions for robot code development

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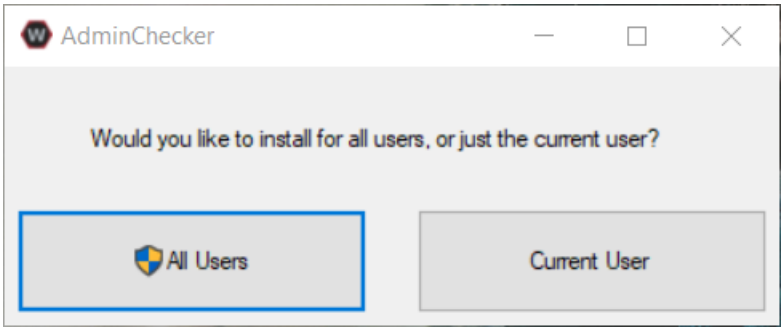
Important: The installer creates a seperate version of VS Code for robotics development, even if VS Code is already installed locally. This is done to prevent workflows from breaking.

Offline Installer

Warning: Windows 7: You **must** install the standalone version of .NET Version 4.62+ which can be found here. Before preceding!

The offline installation files will be located in the USB provided inside the collection. Locate and run the file named `WPILibInstaller_Windows64-2020.3.2.exe` or `WPILibInstaller_Windows32-2020.3.2.exe` based on your OS.



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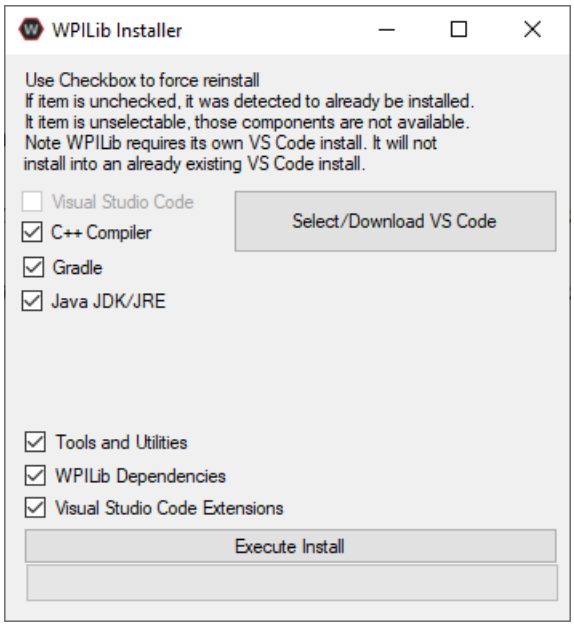

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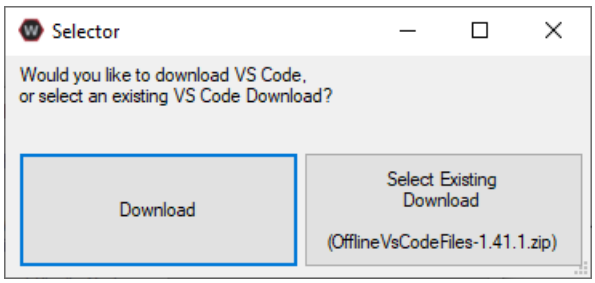
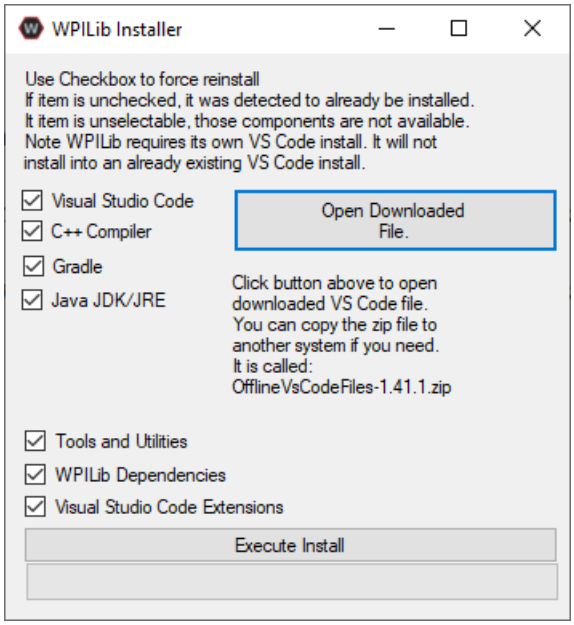


Select the *Select Existing Download* option and then select the file `OfflineVsCodeFiles-1.41.1.zip`. This will change back to the installer window and *Execute Install* can be run.



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macOS

Installing VS Code

Linux

Installing VS Code

CHAPTER

TWO

WORLD SKILLS PROGRAMMING

Programming description goes here

Java

C++

```
//Java code input
leftfront = new Titan(42, 0, 15600);
```

```
//C++ Code inpute
Titan leftfront{42, 0, 15600};
```

CHAPTER

THREE

TROUBLESHOOTING

Page to describe World Skills troubleshooting problems

CHAPTER

FOUR

SETTING UP

Page to describe the set-up for FRC training

CHAPTER

FIVE

FRC PROGRAMMING

Programming Description

Java

C++

```
//Java code input
leftFront = new Titan(42, 0, 15600);
```

```
//C++ Code input
Titan leftFront{42, 0, 15600};
```

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TROUBLESHOOTING

Page to describe FRC troubleshooting problems

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SEVEN

SETTING UP

Page to describe the set-up for the VMX

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EIGHT

SETTING UP VMX VISION

Page that shows how to setup VMX vision

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NINE

VMX UPDATE

Page that describes how to update the VMX

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TEN

TROUBLESHOOTING

Page to describe VMXtroubleshooting problems

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ELEVEN

TITAN CALIBRATION

Page to describe how to calibrate Titan

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TWELVE

HOW TO USE UPDATE APP

Page to describe using the update App for Titan

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TROUBLESHOOTING

Page to describe Titan troubleshooting problems

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