

## Goals:

- Setup an IDE (integrated development environment)
- Setup Unity
- Install a decompiler (ilspy or dnspy)

## Setting up an IDE

For windows, I recommend Visual Studio for your IDE. It's the most featureful IDE available.

Download here: <https://visualstudio.microsoft.com/downloads/>

For mac, I would again recommend Visual Studio although keep in mind mac support will be retiring August 31, 2024. Once that time comes, if this guide is still around, follow the linux instructions below. All of the linux IDEs are supported on mac.

Download here: <https://visualstudio.microsoft.com/vs/mac/>

For linux, I recommend Rider, however it is a paid program. Get it through your organization or school if you can, otherwise there's a couple of alternatives.

1. Visual Studio Code: Visual Studio Code has csharp support through omnisharp which is awful to setup, supports very basic features, and is missing essential features. However, it is the most popular IDE for csharp development on linux and works fine enough.
2. Vim: If you're a more advanced developer, vim does fine. I use it personally for csharp development on linux. If you don't know what vim is, just stick to VSC.

Rider: <https://www.jetbrains.com/rider/download/#section=linux>

Visual Studio Code: <https://code.visualstudio.com/#alt-downloads>

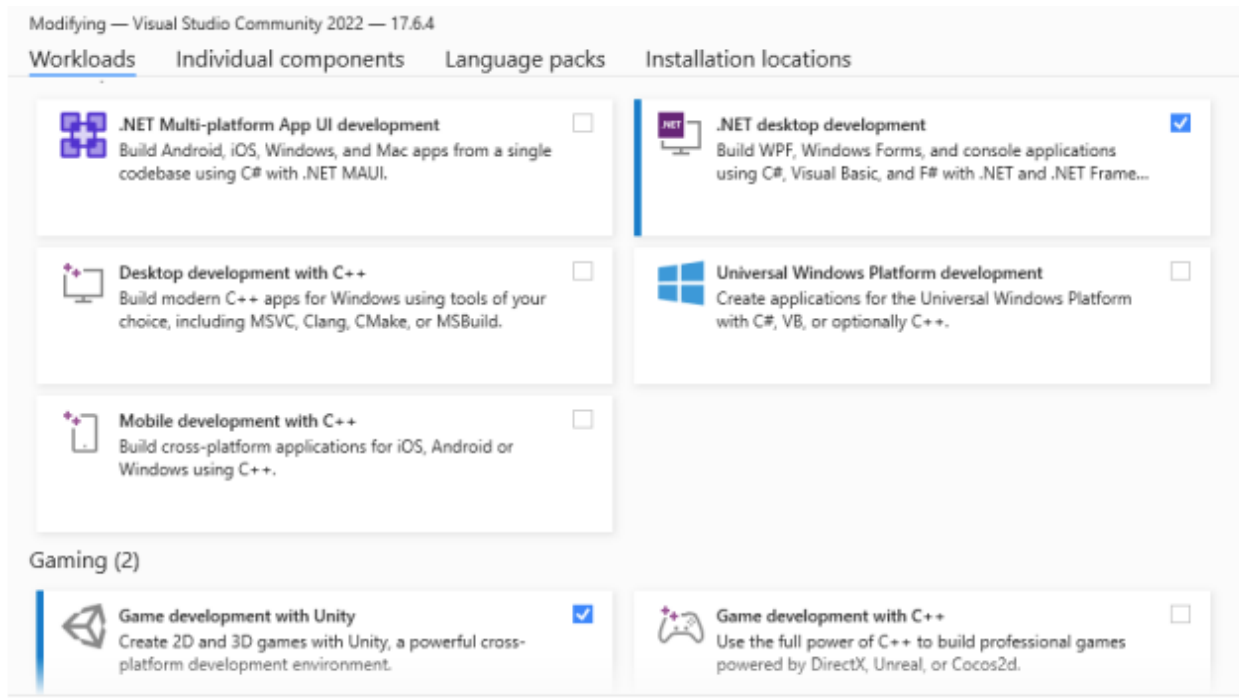
Vim: <https://www.vim.org/download.php>

## Visual Studio

Once you've installed the community edition installer, you need to now install the individual components needed to mod PlateUp.

In the Workloads tab, make sure the following workloads are installed:

- .NET desktop development
- Game development with Unity



In the Individual components tab make sure these following components are installed:

- .NET Framework 4.7.2 targeting pack
- .NET Framework project and item templates

Once all of that is done, you're ready to start developing with Visual Studio.

## Other IDEs:

Let me know, I'm hoping everyone will be on windows and use Visual Studio but that probably won't be the case so I'll work with you individually at the end of the workshop to setup your IDE.

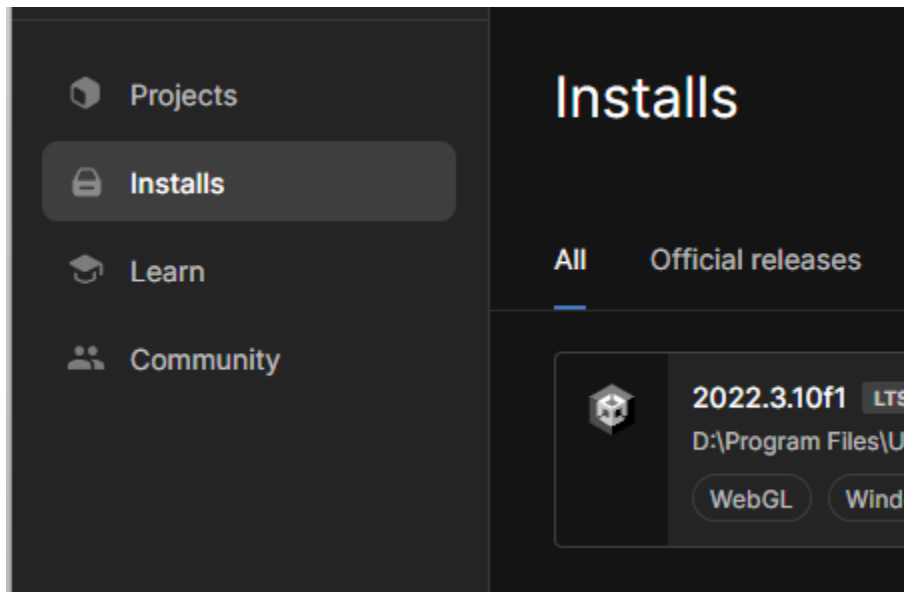
## Setting up Unity

If you're using Visual Studio, just launch Unity Hub. It's included with the "Game development with Unity" workload.

Otherwise download Unity Hub here: <https://unity.com/download>

Once you have Unity hub installed, launch it. It may ask you to activate a license. Don't worry about it, just make an account and create a personal license.

To install Unity, head over to Installs



And install v2020.3.43f1. That's the current version of unity used by PlateUp!, and will be the one that causes the least issues for you. That's all you need for setting up Unity.

## Installing a Decompiler

We use ilspy and dnspy for decompiling.

So what is decompiling? Decompiling software is the process of reversing the compilation of a computer program in order to obtain its original source code or a representation that is closer to the source code.

Why is that useful? Oftentimes, PlateUp has already figured out a solution to our problems, so it's useful to see how PlateUp has implemented their solutions. In addition, it can be used to decompile other mods and use them as examples.

Some things to note, while it is okay to decompile code, it is very much a gray area in software engineering. My opinion is don't copy wholesale, but feel free to take inspiration. If you do end up copying wholesale, try to credit the source.

Back to installing a decompiler, I recommend you install both ilspy and dnspy. Decompiling is not a solved process, so oftentimes, ilspy and dnspy will give you different results. It can be useful to look at both.

Install ilspy here: <https://github.com/icsharpcode/ILSpy/releases>

Install dnspy here: <https://github.com/dnSpy/dnSpy/releases/tag/v6.1.8>

# Other Useful Tools

## Blender

Blender is a very useful tool for 3d modeling. I find it much useful than Unity's own engine.  
Install here: <https://www.blender.org/download/>

## Assetripper

Assetripper is software we use to expose PlateUp's models and use them ourselves.  
Install here: <https://github.com/AssetRipper/AssetRipper>