INTRODUCTION AND INSTALLATION

MODULE I

1.1 Introduction

Summary

What's special about the Engine: Unity is a free game Engine that helps us to consolidate materials, music, pictures, etc and allows to edit and test games.

It helps with the development process: Has editor-side windows and Specific code library.

What kind of games can be made with unity: All of them, different genres, Multiplayers, RPG, 3D etc.

Comparison to other engines: Unreal and GameMaker, Unity has unparalleled possibilities. Unity supports both 2d and 3d games. Has good documentation and tutorials online, also it has the best visual scripting features. The only drawback compared to its rivals is visual scripting, which is not default feature but can be downloaded additionally.

Unity is for everyone, who are complete beginners or experienced coder. It can be also used for non-game development purposes, scientists use it for simulations.

Key Points

- Free Game Engine
- Helps with the Development process
- Can be used to create games of all genres
- Comes with best visual scripting features
- It's useful both for beginners and professionals

1.2 Installation

Summary

Installing the Engine: the needed software is called Unity Hub + Video Studio Community, which is an IDE which - a code editor and needs to be installed alongside with Unity Hub.

In order to download the program we just run a Google search query - Unity Download –and after that find unity hub on Unity's website.

After installing it the hub it should be opened and engine and editor itself must be added, latest versions. Additional features like Android or IOS support can be always added later. Crucial thing to download right away is Documentation.

After the installing process is over, the author opens a new project, gives it's a new name and chooses template. After clicking OK, it opens up an actual engine.

Key Points

- Unity Hub must be downloaded with IDE(Studio Community for example)
- After Downloading Unity Hub, latest version of engine and editor should be added
- Additional features like Android support can be chosen later
- After giving choosing a name and a template of a new project it's all set.

1.3 Getting Started
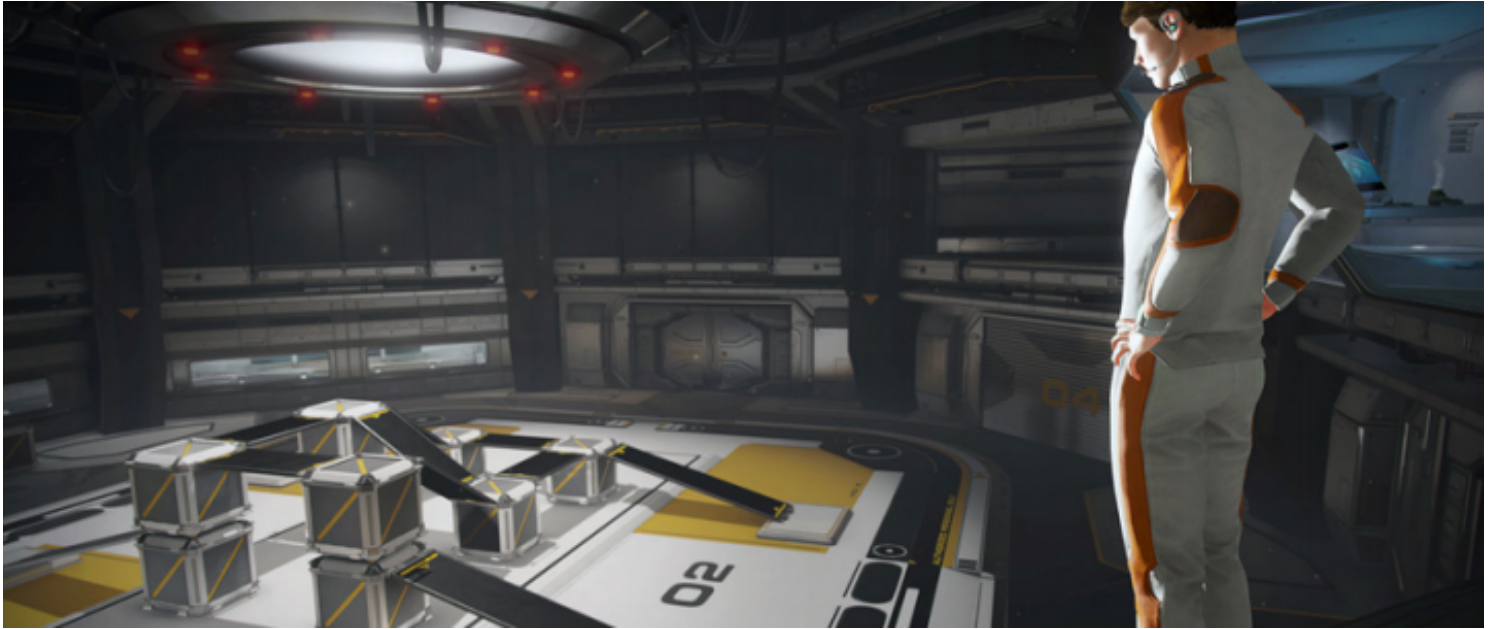
This section is your key to getting started with Unity. It explains the Unity interface, menu items, using assets, creating scenes, and publishing builds.

When you are finished reading this section, you will understand how Unity works, how to use it effectively, and the steps to put a basic game together.

Installation Options

You can install the Unity Editor in the following ways:

• The Hub provides a central location to manage your Editor installations, Accounts and Licenses, and Projects. For more information on installing the Editor using the Hub, see Installing Unity using the Hub.

• You can use the Download Assistant to install the Editor. If you subsequently choose to install the Hub, you can add it to the Hub at that time. For more information, see Installing Unity using the download assistant.

• The Unity Download Assistant supports offline deployment. This allows you to download all the necessary files for installing Unity and generate a script to install the Editor on computers without internet access. For more information, see Installing Unity offline using the Download Assistant.

1.4 Unity Hub

The Unity Hub is a standalone application that streamlines the way you find, download, and manage your Unity Projects and installations. In addition, you can manually add versions of the Editor that you have already installed on your machine to your Hub.

You can use the Hub to:

• Manage your Unity account and Editor licenses.

• Create your Project, associate a default version of the Unity Editor with the Project, and manage the installation of multiple versions of the Editor.

• Launch different versions of Unity from your Project view.

• Manage and select Project build targets without launching the Editor.

• Run two versions of Unity at the same time. Note that to prevent local conflicts and other odd scenarios, you should only open a Project in one Editor instance at a time.

• Add components to existing installations of the Editor. When you download a version of the Editor through Unity Hub, you can find and add additional components (such as specific platform support, Visual Studio, offline docs and Standard Assets) either during initial install or at a later date.

• Use Project Templates to jump-start the creation process for common Project types. Unity's Project Templates provide default values for common settings when you create a new Project. Project Templates preset batches of settings for a target game type or level of visual fidelity. For more information, see **Project Templates.**

For information on installing the Unity Hub, see **Installing Unity using the Hub.**

1.5 Installing the Unity Hub

The Unity Hub is a management tool that allows you to manage all of your Unity projects and installations. Use the Hub to manage multiple installations of the Unity Editor along with their associated components, create new Projects, and open existing Projects.

To install the Unity Hub, visit **Download Unity Personal** on the Unity website.

To install and use the Unity Editor, you must have a Unity Developer Network (UDN) account. If you already have an account, sign in, choose your licenses type, and proceed to the **Installing the Unity Editor** section.

If you do not have an account, follow the prompts to create one. You can choose to create a Unity ID or use one of the social sign-ins. For more information on accounts and subscriptions, see **Unity Organizations**.

Installing the Unity Editor

To install the Editor:

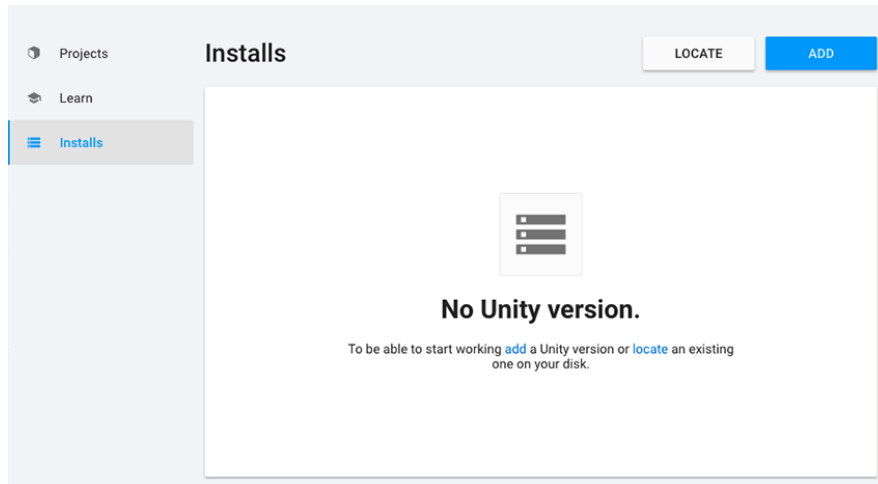1. Click the Installs tab. The default install locations are:

Windows:

```
C:\Program Files\Unity\Hub\Editor
```

Mac:

```
/Application/Unity/Hub/Editor
```

• Optionally, to change the default installation location, click the Gear icon. ⚙
• In the Editor Folder Location dialog box, enter the new installation location and click Done.

2. Click the Add button and select a specific version of the Editor.

Hub install screen

3. Click the Next button and select the modules you want to install with the Editor. If you don't install a component now, you can add it later if you need to. When you've selected all the modules you need, click Done.
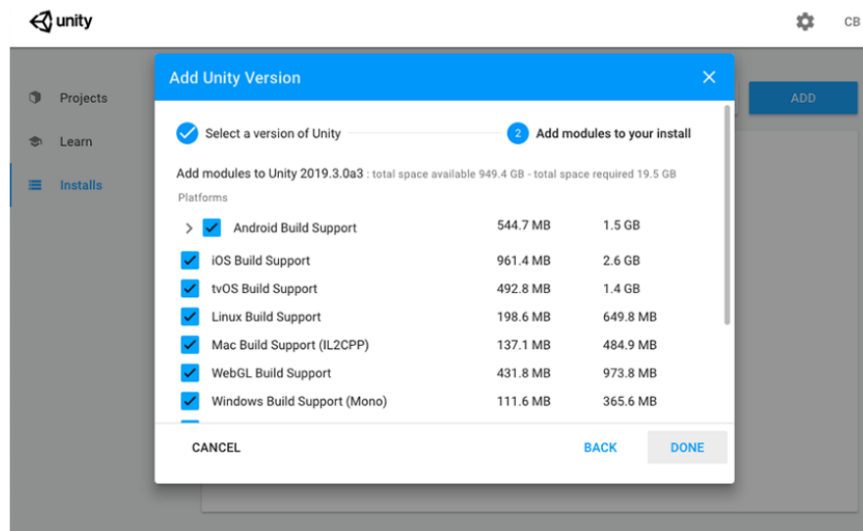

Modules install

If you are installing multiple Editor versions, the first installation starts as soon as the download is complete. Other selected versions download simultaneously and queue to start when the current installation finishes.

The Hub displays the installation location of each Editor under the corresponding version label.

To add modules to an Editor, locate its files, or uninstall it, click the three dots next to that Editor version.
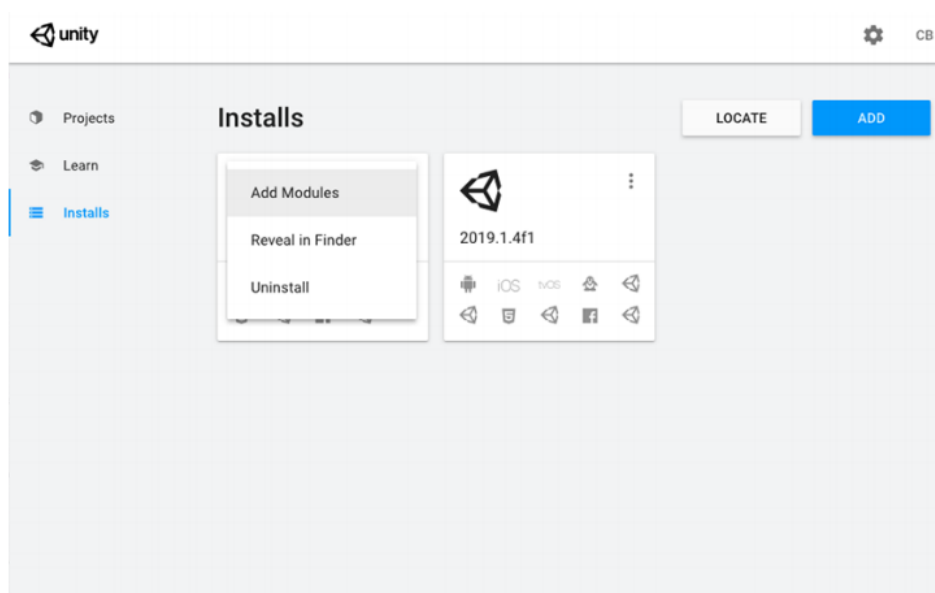
Modifying an existing Editor install

Adding existing instances of the Editor to the Hub

You can add instances of the Editor to the Hub that you installed outside of the Hub.

1. Click the Installs tab.
2. Click the Locate button to find existing installations of the Editor.
3. In the file dialog, navigate to the location of the Editor installation and select the Unity executable. On MacOS this is Unity.app. On Windows this is Unity.exe.

On macOS, the typical location of the Unity.app is:

```
/Applications/Unity/Hub/Editor/&lt;version&gt;/Unity.app
```

On Windows, the typical location of the Unity.exe is:

```
C:\Program Files\Unity\Editor\Unity.exe
```

or

```
C:\Program Files\Unity&lt;version&gt;\Editor\Unity.exe
```

4. Click the Select Editor button.

To remove the Editor from the Hub, click the three dots next to the Editor version. Removing an Editor that you added in this manner does not uninstall it or modify it in any way.

Support for Editor versions prior to 2017.1

Sign-in status is not shared for pre–2017.1 versions of the Editor opened through the Hub. Performing tasks such as Manage License, Open Project, Create Project, and Sign in opens the Unity Launcher instead of the Hub.

If you attempt to use the Unity Hub to open an Editor version 5 or earlier and you do not have an appropriate license file, the Editor will hang on the splash screen.

To avoid this issue, run the Editor directly, external to the Unity Hub, and the Editor will load correctly even if the license file is not detected.

Using the Unity Installer to install the Unity Editor

The Unity installer is a small executable program (approximately 1 MB in size) that lets you select which components of the Unity Editor you want to download and install.

To install previous versions of the Unity Editor using the Installer, visit the Unity download archive. The archive page provides Unity Installer download links for all released versions of the Editor.

For additional information on installing the Editor using the Installer, see the 2018.3 version of the Unity Manual.

1.6 Adding modules to the Unity Editor

Use the Unity Hub to add additional components to installations of the Editor that you originally installed using the Hub.

1. Open the Hub.
2. Select Installs.
3. Locate the Editor you want to add the components to.
4. Click the three dots to the right of the version label, then select Add Modules.
5. In the Add Modules dialog, locate the module to add and tick its checkbox.
6. When you have selected all the modules to add, select Done.