B0 - HUB

B-INN-000

Unity

Introduction to Unity Game Engine

Unity

binary name: no binary
repository name: no repository
language: no languages
compilation: no compilation
build tool: no need here

- The totality of your source files, except all useless files (binary, temp files, obj files,...), must be included in your delivery.
- All the bonus files (including a potential specific Makefile) should be in a directory named *bonus*.
- Error messages have to be written on the error output, and the program should then exit with the 84 error code (0 if there is no error).

WORKSHOP-UNITY

Overview

This workshop is a quick introduction to the Unity game engine.
It will cover the basics of the engine and how to use it to create a simple game.

If you want an other way to learn how to use Unity, I recommend you to take a look at the official learning platform.
You can find it here.

Introduction

unity website
unity documentation
unity showdown
unity learning

Unity is a cross-platform game engine (smartphone, computer, video game consoles and Web) developed by Unity Technologies.

It is one of the most widespread in the video game industry, both for large studios and for independents because of its speed in prototyping and that it allows to release games on all media.
The Unity game engine launched in 2005, aiming to “democratize” game development by making it accessible to more developers.
It has the peculiarity of offering a free license called “Personal” with some limitations of advanced technology at the level of the editor, but without limitation at the level of the engine.

The software has the particularity to use the language (C#) on the platform “.NET”.
It is a high level language, it allows to be free of memory constraints and to allow a faster and hassle-free development.

Workshop Objectives

- Familiarize with the Unity interface and navigation
- Learn unity’s creation process
- Gain an understanding of how programming and creative core works together
- Explore the different tools available in unity editor
- Create a simple Game with use of the unity asset store

Workshop Schedule

Installation

If you don't have already installed Blender, you can download it from the official website.

I. Introduction to Unity (15 minutes)

- Overview of Unity game engine and its features
- Understanding the Unity interface and basic terminology
- Creating a new Unity project

II. Scene Creation (15 minutes)

- Understanding scenes and game objects in Unity
- Creating and managing scenes
- Adding and manipulating game objects in the scene

III. Basic Scripting with C# (30 minutes)

- Introduction to C# scripting in Unity
- Creating and attaching scripts to game objects
- Writing basic scripts for movement, input, and interaction

IV. Physics and Collision Detection (15 minutes)

- Understanding physics in Unity
- Applying physics to game objects
- Implementing collision detection and response

V. Animation and Particle Effects (15 minutes)

- Creating animations with Unity's animation system
- Using particle effects to add visual effects to games
- Creating simple animations and particle effects for game objects

VI. Building and Deploying a Unity Game (15 minutes)

- Building a game for different platforms (PC, mobile, etc.)
- Understanding the Unity build settings
- Exporting and testing a Unity game on various platforms

VII. Practice (15 minutes)

- Using the unity asset store, create a game and try all the tools disponible in the unity editor

Conclusion

If you have reach this far, congratulations! You have completed the Introduction to Unity Game Engine Workshop. We hope you have learned a lot and enjoyed the workshop. If you have any questions or feedback, please feel free to create an issue on the repos with your question or feedback. We will try our best to answer your questions and improve the workshop based on your feedback.