User Guide

User Manual

What you need

Software Requirements

Operating System:

— Windows 7, 8, 10

— Android 6 and higher

Hardware Requirements

CPU:

— x86 Intel i3 2120 or better

— ARM Cortex-A7 or better (with Android)

GPU:

— Intel HD 2000 or better

Memory:

— at least 200 mbyte free disk space

— at least 200 MB RAM

Monitor:

— at least 40" recommended

— multi touch interface (12 touch points recommended)

Others

Number of Players: — 2 or 4

Goal of the Game

The goal of the game is to get more points within 3 minutes as a single player or a team than your opposition. You can get points by positioning shapes on top of Emojis in a way that covers up the whole current Emoji.

Installation

Windows

If you have downloaded the Product-ZIP (shapemoji-master-Exectuables-windows.zip) on your device just search for it in the file system and unzip it. Open the folder "Exectuables" in the unzipped folder, then

open the folder "windows". In this folder you'll find the Shapemoji.zip, unzip this as well. Open the unziped folder and then start the "Shapemoji.exe". The game will then start to run automatically.

Android

If you have downloaded the APK on your device your system should install it automatically. Just start the App once it is finished to play the Game. You may need to activate "Allow Installations from unknown source" / "Allow installation from this source" on your device, the latter is recommended.

Before the Game

Decide if you want to play a 1 vs 1 or 2 vs 2 round. In the first case find yourself a contender to play with, if you don't have one already, In the second case it is recommended to have 4 Players seperated in 2-Player teams.

Once the Game is started you can select what mode you want to play (1 vs 1 or 2 vs 2) by tapping on the Play Button of the mode on the Start Screen.

If you don't know how to play the game you can check out the following paragraph or watch the short tutorial video that you can also find on the Start Screen.

How to Play

Base

There 2 or 4 Bases in the game depending on the game mode. In 1 vs 1 each player chooses one of the Bases for himself. In 2 vs 2 the team chooses on what short side of the screen they want to play and then any Player gets one of the two Bases on the chosen side. It is intended that the Red and the Green Base work together in the first team as well as the Blue and Orange one in the second team. You can find the colored Bases in every corner of the screen.

Stones / Items

On the playing field there are many different stones in 6 different shapes. You can get one if you fire the Harpoon at the correct angle. Sometimes there appears a Defect Item on the playing field, you can also get one if you use the Harpoon analogous.

Harpoon

To use the Harpoon you have to tap and hold onto the Crossbow that is placed on top of your Base. By moving your finger to a side you can adjust the direction your Harpoon is facing, if you let go of the touchscreen the Harpoon will fire an arrow projectile in the current direction. If the Projectile has hit a target it will stop moving and either lock itself into a Wall or hook a Stone/Item. In both cases you have to pull it back in with the Crank Wheel to use the Harpoon again. Once it is pulled in the Stone will be put into your Inventory (if it's not full)/Item will be activated.

Crank Wheel

By tap and hold onto the Steering Wheel on your base you can rotate it around itself. It is activated once the Projectile stopped moving, you can now pull in the Projectile by rotating the Crank Wheel multiple times.

Inventory

If you a tap and hold a Stone in the 4 Inventory Slots you can drag and drop it onto the Emoji or the Workbench. It can hold up to 4 Stones at a time, if you pull in another one it gets deleted.

Workbench

If a Stone is dragged onto your (side of the) Workbench (1 Workshop per Player) between your Base and the toolbox in the same color as your base it will remain there. You can use this as a 5th storage Place for Stones additionally to the Inventory, but it should be used to scale and/or rotate the Stone in a specific way, so it fits perfectly into the place on the Emoji you want to put it. To perform this you have to use two fingers and tap the Stone on two sides and then just rotate them around each other or pull the apart, the Stone will follow suit. From here you can either keep the Stone there as it is or drag and drop it onto the Emoji.

Emoji

The Emoji is the image you want to cover up with stones as exactly and complete as possible, but beware, avoid having parts of the Stones outside of the Emoji or some parts of the Emoji uncovered, it will cost you points later on, you may even get points substracted from your Point total. You can drag and drop the last placed Stone on the Emoji back onto the Workbench, as long as there is no other Stone there already, if it's rotated or scaled correctly yet. You can lock in your Emoji by pressing the Toggle Button on your side, if you play in a team both players have to activate their Toggle Button. Locking in means that you can no longer out new Stones on the Emoji and the Game calculates your score for this Emoji. Afterwards the Emoji will be replaced by a new one.

Additional Rules

Walls

The Projectile will stop moving once it hits a Wall. Walls are either the two slim objects in the center of the Game, the borders of the screen or the Workshop.

Stop / Pause the Game

By pressing the clock on the game, or the ESC key if a keyboard is connected, you can pause the game. In the Pause Menu you can either restart the game, exit the game, or finish the current round leading the End Screen that shows the winner of the match.

Clocks

The clocks in the game show you how much time is left to play.

Most important Rule

Have fun :-D

Game Objects

Type	Description	Image
Stones	Stones are spawned on the playing field and are used to cover the emoji. Stones can be put in the inventory with the help of a harpoon	
Defect Item	Defect item can be used, to distort the opponent's base. The item can be activated by a harpoon	
Timer	Timer is used to display time left until game finish. You can also click on the timer to pause the game	
Wall	Walls prevent the harpoon from flying, so it is better to avoid them	

Harpoon Base	Every player has it's own player base. The player base consists of harpoon cannon, harpoon projectile, wheel and inventory		
Harpoon Projectile	Harpoon projectile can be shot in a specified direction. Stones and items can be hooked at the projectile		
Harpoon Cannon	Harpoon cannon can be aimed in a direction by the user. You can aim the cannon at stones, in order to drag the stones into the inventory. You can also aim cannon at items, in order to activate item effects		
Wheel	The wheel is used to drag the harpoon back to the player base. You can rotate the wheel to get your harpoon back		
Inventory	Inventory is a place at player's base to store stones. Only 4 stones can be stored at once. You can select stones from inventory and place them into workshop or inventory		
Workshop	Workshop is used to scale and rotate stones. From the workshop the stones can be placed on the emoji		
Emoji	The main character of the game. Must be covered with stones. The stones should not get out of emoji's bounds. Note last stone placed on emoji can be moved back to workshop		
Toggle Button	Toggle button is used to get the next emoji and receive scoring. You should only use it, if you believe you covered your emoji with stones good enough. Note: in game mode "2vs2" both toggle buttons must be activated to swap the emoji		

Feature Description

Launching a game mode

1. Start the application
2. In the Main Menu choose between 2 game modes: 1vs1 and 2vs2
3. Wait until the game is started (a countdown will be displayed in the center of the screen)
4. In the game you can shoot projectile from the player base to get stones into inventory or activate items, scale and rotate stones in the workshop, place stones from workshop into emoji, hand in emoji.

Shoot projectile

1. Place and hold a touchpoint on harpoon
2. Drag the touchpoint in order to rotate the harpoon and aim the harpoon's projectile at a stone or an item
3. Release the touchpoint to shoot the projectile
4. After the projectile collided with an object, you can return it back to the base by rotating the wheel
5. To rotate the wheel, place a touchpoint on the wheel and rotate the touchpoint along the wheel
6. After the projectile is back at its initial position, you can shoot again
7. If you hit a stone in step 4, the stone will be placed in the inventory (in case there are free slots in the inventory)
8. If you hit a special item in step 4, the item will be activated

Scale and rotate stones

1. Choose a stone from the inventory by placing and holding a touchpoint
2. Drag the touchpoint to the workshop
3. Release the touchpoint
4. In order to rotate the stone, place 2 touchpoints on the stone and use touch gesture "Rotate"
5. In order to scale the stone, place 2 touchpoints on the stone and use touch gestures "Zoom" and "Pinch"

Place stones on emoji

1. Place and hold a touchpoint on the stone in the workshop or inventory
2. Drag the touchpoint to the emoji and place the stone in the desired position
3. Release the touchpoint
4. Note: the last placed stone can be dragged away to the workshop, in order to get adjusted

Hand in emoji

1. In order to get score for the emoji coverage you have to activate the toggle button
2. Click with a touchpoint on the toggle button that is placed near the emoji
3. After the emoji is handed in, you will get a score and a new emoji will be displayed
4. Note: in game mode 2vs2 both toggle buttons must be activated, in order to hand in the emoji

Deactivating defect item

1. Place and hold a touchpoint on the drop of water
2. Drag the touchpoint to the fire icons, that are displayed on the harpoon
3. Swipe the fire icons away, until all fire icons disappear

Deployment Guide

Procedure

1. Clone the repository

Clone the repository from https://gitlab.hochschule-stralsund.de/spo_ws2020_21/shapemoji/shapemoji to an appropriate place using

Git: `git clone https://gitlab.hochschule-stralsund.de/spo_ws2020_21/shapemoji/shapemoji`

or every other tool that you like for cloning repositories.

2. ADD the repository to UnityHub

Open up UnityHub and go to "Projects".
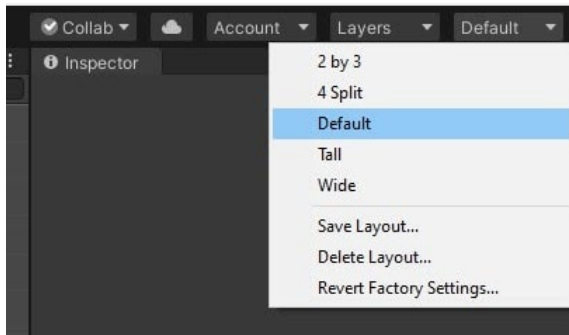Use the ADD button to add the "src"-folder of the cloned repository as a project to UnityHub.

3. Open the Project

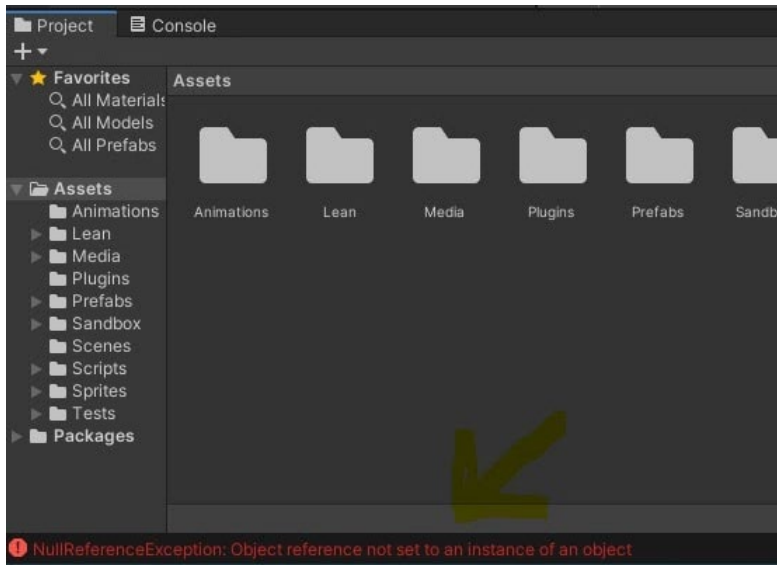By clicking on the added project called "src".
Make sure you have chosen 2019.4.13f1 as "Unity Version".
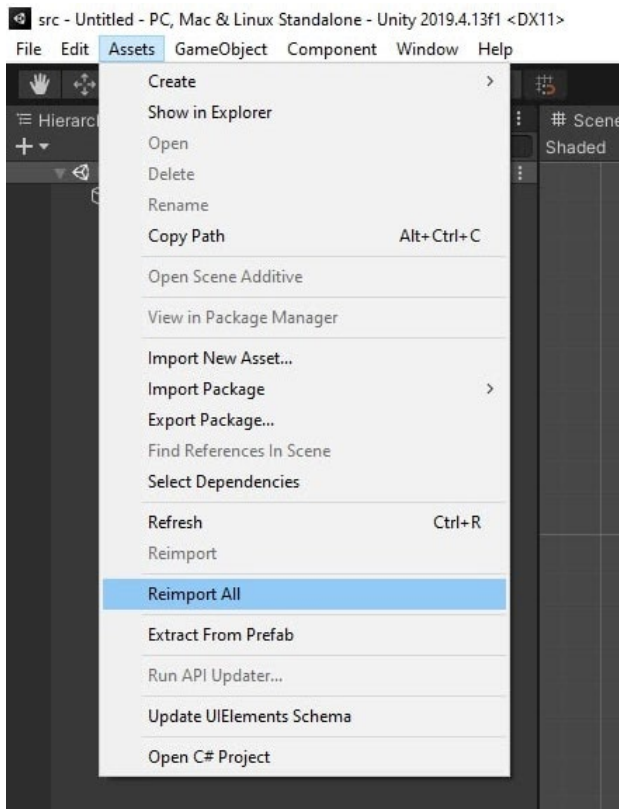
4. Check the opened project

Go ahead and chose "Default" as layout options in the upper right corner for the purpose of this guide.
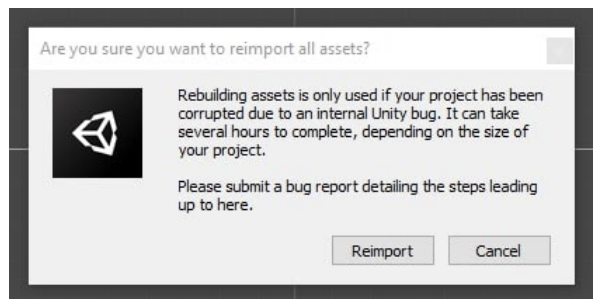

Check the lower left corner for any exceptions like the following:

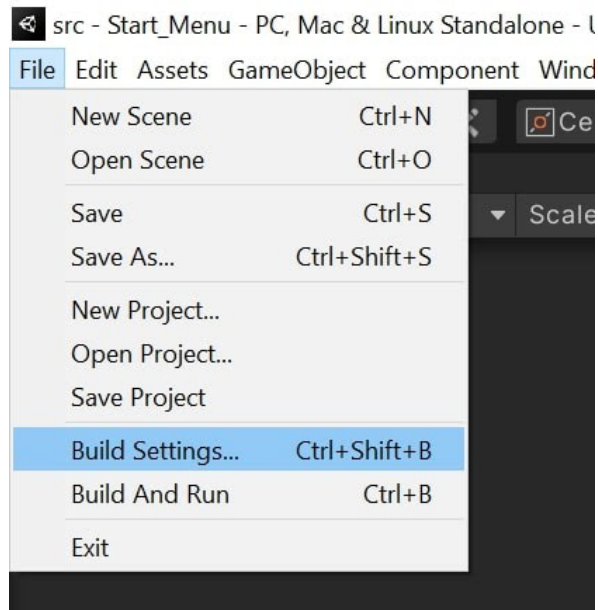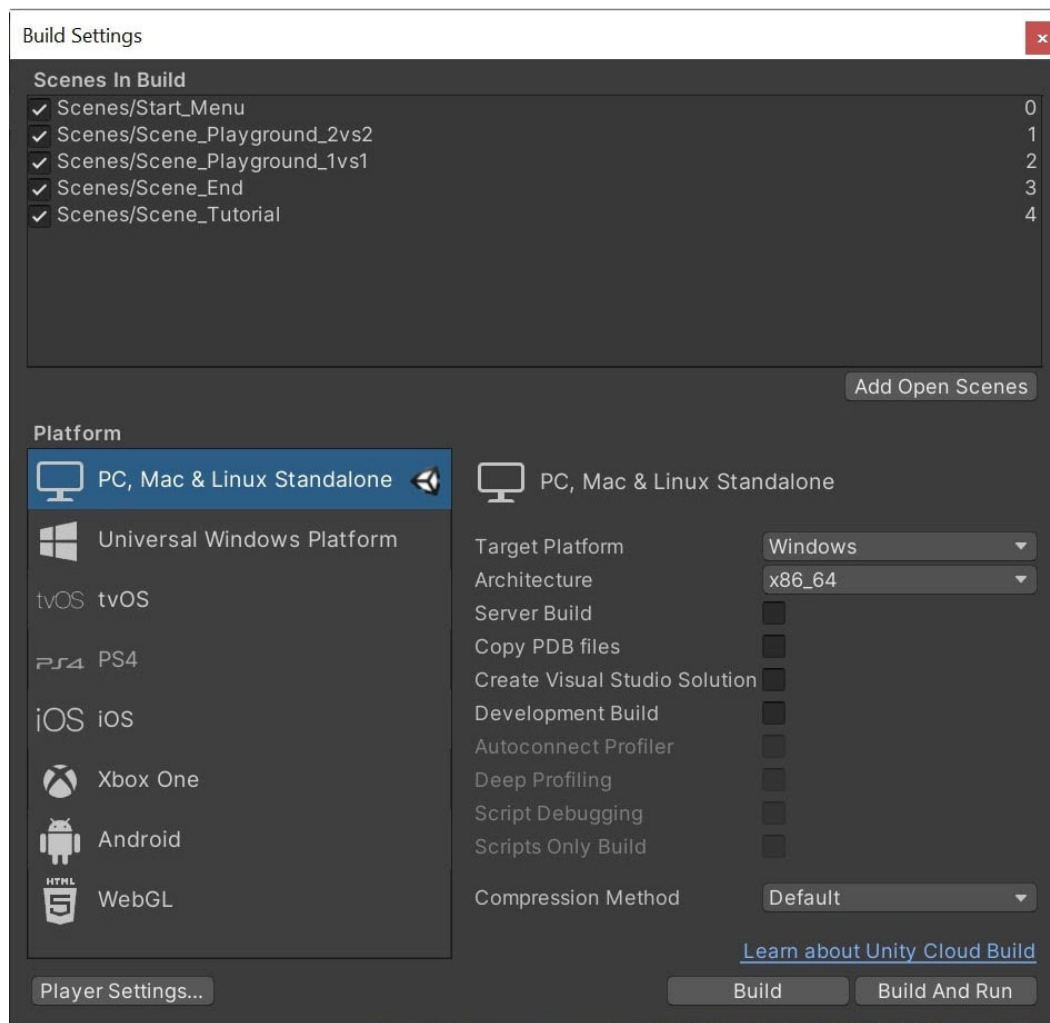If the same exception appears just click on "Assets/Reimport All".

If its a different exception or if the previous handling did not work you might want to search for the bug or continue none the less if you just want to build the project.
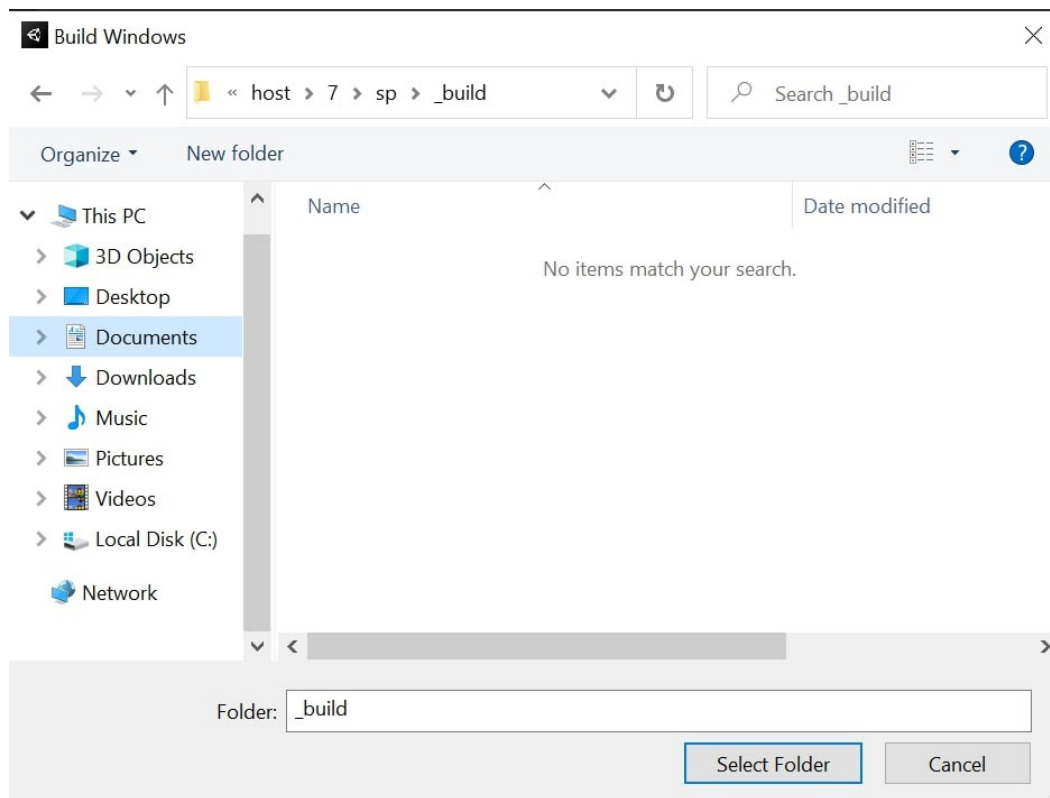
Build the Project

In program menu select "File" > "Build Settings".

In the new window "Build Settings" select "Build".

In the new window "Build Windows" select a folder, to save the new Build:
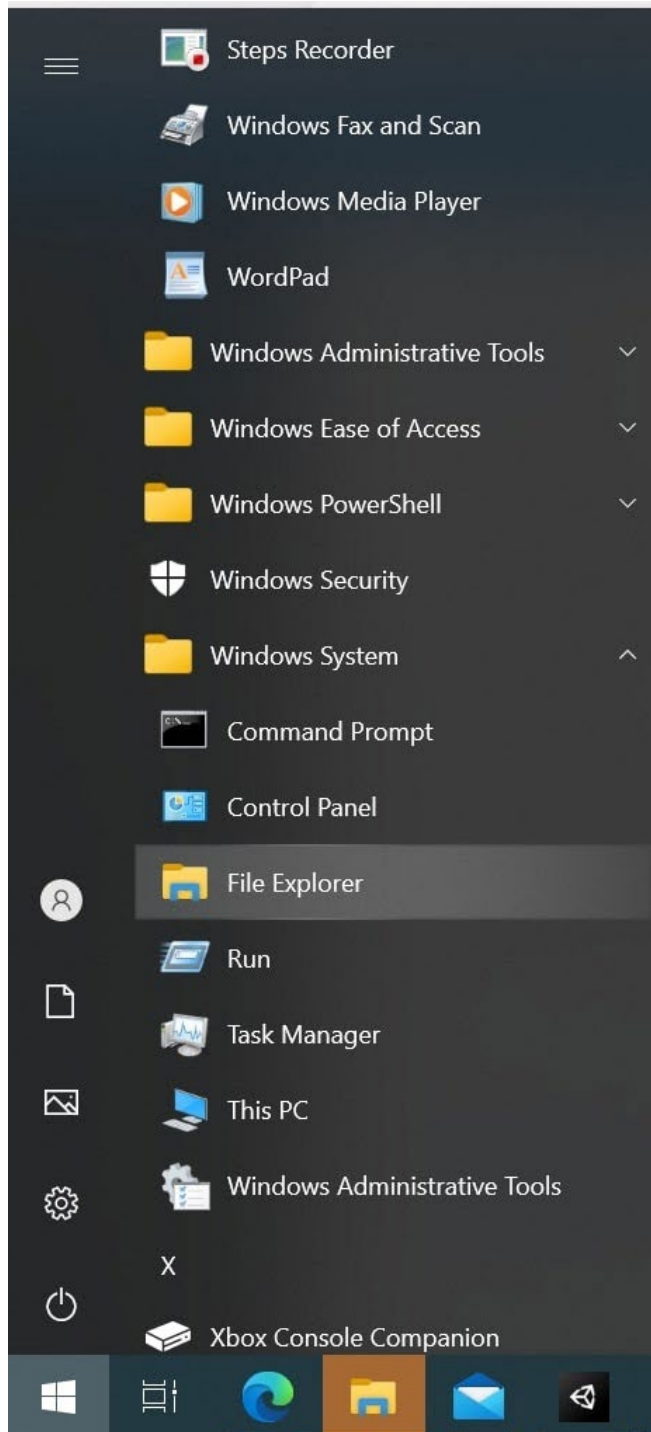

Setup the Touch-Monitor

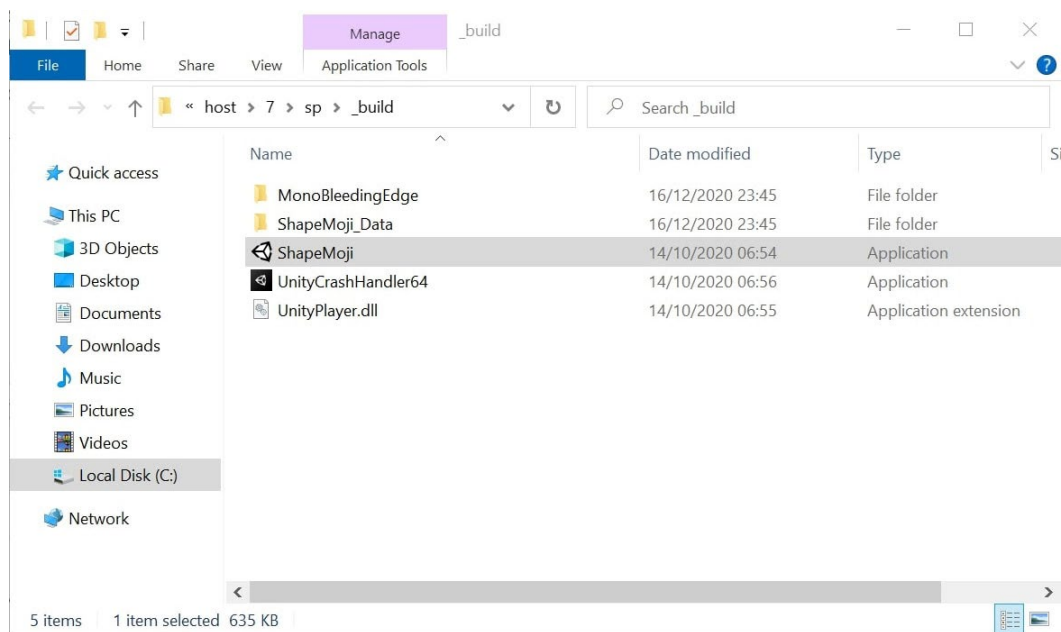Connect the PC to the Touch-Monitor with the HDMI Cable

Place the Touch-Monitor in the horizontal position for the best playing experience

Run the Game

Open File Explorer in the Start Menu and navigate to the folder with the saved build

Select ShapeMoji Application in the build folder to run the game

The administrative configuration options used to balance the game.

Harpoon

File Path	Object	Script	Attribute	Current Value	Description
Prefabs/Harpoon	Harpoon	Harpoon Controller	Projectile Speed	**1500**	The speed with which the harpoon is flying when shooted.
Prefabs/Wheel	Wheel	Crank Controller	Range Per Pevolution	**500**	The speed with which the harpoon gets wound in.

Stones

File Path	Object	Script	Attribute	Current Value	Description
Prefabs/Spawner/StoneSpawner	StoneSpawner	HookableObjectSpawner	**Max Stones**	20	The limit on how many stones can be on the playingfield. (not including used or hooked ones)

Items

File Path	Object	Script	Attribute	Current Value	Description
Prefabs/Spawner/StoneSpawner	StoneSpawner	HookableObjectSpawner	Max Items	2	The limit on how many items can be on the playingfield. (not including used ones)
Prefabs/Spawner/StoneSpawner	StoneSpawner	HookableObjectSpawner	Percentage Item Spawning	3	The percentage for every spawned stone being an item instead.
Prefabs/HarpoonBase	HarpoonBase/ItemDefect	ItemDefect	Spawn Rate	0.02	The respawn rate of the flames on the defect. Increase to let the flames spawn faster.
Prefabs/HarpoonBase	HarpoonBase/ItemDefect	ItemDefect	Spawn Adjust Rate	60	With every fire extinguished the fire respawns a bit slower. Use this attribute to make this process faster or slower.