ENVIRONMENT ART ASSETS FOR UNITY

2D HAND PAINTED

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Thank you for downloading the *2D Hand Painted* assets, we hope it will boost your game! We designed this pack to contain everything required to create a visually stunning, immersive, and complete environment.

The following document should provide all you need to know to utilize everything the pack offers. Although we have invested significant efforts to provide you with the highest–quality product possible, in case you find something missing, unclear, or have a suggestion, please contact us – we are here to assist, help, and support!

Hopefully, you find this asset valuable; it will mean alot for us if you could kindly **rate and share feedback at the Unity Asset Store** – we read everything and strive to update the packages as quickly as we can.

hello@notslot.com
@notslotgames

Version 1.0 April–May 2020

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GETTING STARTED

Installing and configuring this asset is a straightforward and intuitive process. After importing the asset into Unity, the on-screen Installer window will guide you through a simple configuration process.

The whole process is automated and performed by the Installer window, and *it may take a few minutes.*

INSTALLATION

When you import the asset into Unity, it will show the Installer window to guide you and configure the project on your behalf.

If the Installer window desn't show up you can open it through the menu *2D Hand Painted/Install*.

If you previously installed another pack from the 2D Hand Painted Bundle, the Installer window WILL NOT DISPLAY, and you should be ready to go!

The Installer process has four screens:

INTRO

Validate that your render pipeline isn't configured correctly.

If not configured properly, a message will appear with a link to a configuration manual; configure the render pipeline as described and upon Unity.

CONFIG

A few options to customize the installation process. It's best to leave the options as displayed initially.

INSTALL

The performed tasks will be listed and marked when they are complete.

ENJOY

That's it! You can close the window now; everything is ready for you to start using this asset.

RENDER PIPELINE

This asset requires the **Universal Render Pipeline** with a **2D Renderer**.

REQUIREMENTS

Besides the Universal (2D) Render Pipeline, there are no other requirements.

Using *Sprite Shapes Profiles* requires installing the 2D Sprite Shapes package. The Installer window process will install the dependency on your behalf. *You may opt out of installing it.*

DEMO SCENE

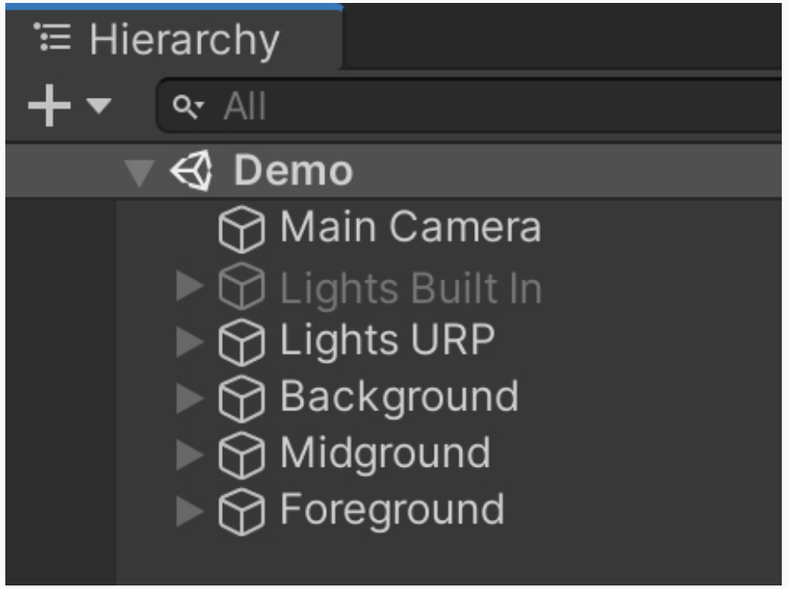
The Demo scene showcases the usage of the pack's Prefabs, Shaders, and Sprite Shapes.

Navigate the scene at Play Mode using the `Arrows` or `WASD` keys; use `Left Shift` or the `Mouse Wheel` to boost speed.

We recommend exploring how the scene is built as it's a great place to start when looking to learn best practices to utilize all this pack has to offer.

HIERARCHY

The scene is divided into three main layers GameObjects: Background, Midground, and Foreground; all Prefabs and Sprite Shapes are placed under one of the three layers.



PARALLAX

To achieve a brilliant Parallax effect, we configured the camera's projection to **Perspective** instead of Orthographic.

To prevent Z-fighting (sprites jittering while the camera moves), please configure the *2D Renderer Data* asset's *Transparency Sort Mode* to **Orthographic**.

LIGHTS

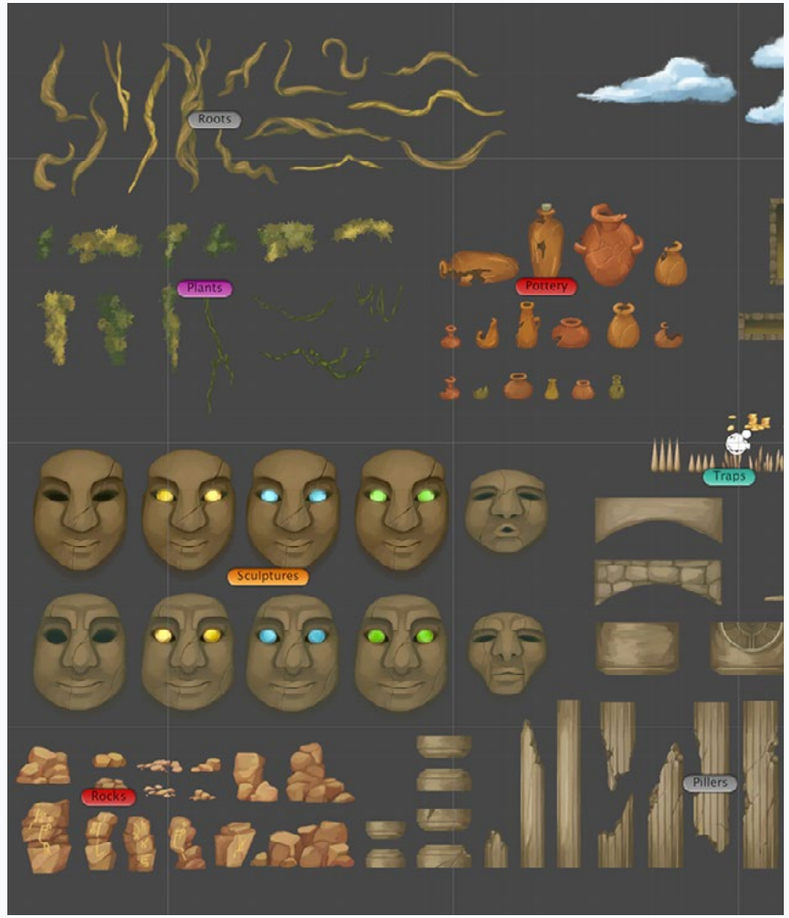
The demo scene is designed with rich lighting utilizing Unity's rich 2D light features.

PREFABS

The Prefabs folder contains the main assets to use when working with this package. They are ready to drag and drop into the scene, pre-configured with sprites, materials, scripts, effects, etc.

The prefabs are organized into groups and are laid out for quick reference inside the *Spritesheet* scene.

Composite prefabs, those containing multiple child objects, have a Sorting Group component to allow changing the sorting for all the child renderers at once.



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SPRITE SHAPES

Unity's 2D Sprite Shapes are a flexible and powerful world-building tool that features Sprite tiling along a shape's outline that automatically deforms and swaps Sprites based on the outline's angle. It's great for creating organic and unique art for your games.

To add a shape to the scene, drag a *Shape Profile* from the Shapes folder. After dragging, **add a material (and a component when needed)** as described below.

Note that some shapes feature multiple variants – be sure to check those out!

CLOSED SHAPES TIP

The closed Shapes Profiles provided by this pack do not define sprites for the corners; therefore, we advise adjusting the shapes' Spline, using the different Tangent Modes.

The following method will create authentic and organic shapes (for platforms, walls, etc.):

1. When editing a shape, press  Edit Spline.
2. Select a Control Point; three  Tangent Modes will appear.
3. Select the middle  Continuous Mirrored mode.
4. It's worth checking out all Tangent Modes to find which provides an organic shape.

DUNGEON SPRITE SHAPES

BRICKS WALL Closed
- Dungeon

4 sprite variants

BRICKS WALL DARK Closed
- Dungeon

2 sprite variants

ROCK GROUND Closed
- Dungeon

3 sprite variants

LAVA Closed
- Dungeon Lava – Waves (Shape)

1 sprite variants

BRIDGE Open
- Dungeon

1 sprite variants

RAIL Open
- Dungeon

1 sprite variants

CARPET Open
- Dungeon

2 sprite variants

FLAG Open
- Dungeon

4 sprite variants

CHAIN LARGE Open
- Dungeon

1 sprite variants

CHAIN SMALL Open
- Dungeon

1 sprite variants

ROPE Open
- Dungeon

1 sprite variants

LADDER Open
- Dungeon

1 sprite variants

TEMPLE
SPRITE SHAPES

BRICKS WALL Closed
- Temple

3 sprite variants

BRICKS WALL DARK Closed
- Temple

4 sprite variants

GRASS HILL Closed
- Temple

5 sprite variants

WATER Closed
- Temple – Stream (Shape)

1 sprite variants

BRICKS Open
- Temple

6 sprite variants

GRASS PATH Open
- Temple

1 sprite variants

LADDER Open
- Temple

5 sprite variants

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DUNGEON EFFECTS

CRYSTAL FANTASY

Sparks and flickering lights – great addition for the crystals.

`Color` – Color of particles and light.

`Range` – Range for particles spread and light.

`Intensity` – Light intensity.

`Flicker Speed` – Light random flickering speed.

`Flicker Amount` – Light flickering influence.

FIRE SMOKE

Simple smoke effect, a great addition for torches.

FIRE SPARKS

Simple sparks effect, great for torches. Orange and blue variants.

DEBRIS & DUST

Every few seconds, a cycle of debris and dust falling from the ceiling.

LAVA BUBBLES

Some popping bubbles for an active lava pool.

`Width` – Size in world space, also affects emission rate.

LAVA STEAM

Hot steam clouds rising from the lava.

`Width` – Size in world space, also affects emission rate.

LAVA SPARKS

Some sparks to make your lava more dimensional.

`Width` – Size in world space, also affects emission rate.

TEMPLE EFFECTS

FIRE SMOKE

Simple smoke effect, a great addition for torches.

FIRE SPARKS

Simple sparks effect, great for torches. Orange and blue variants.

DEBRIS & DUST

Every few seconds, a cycle of debris and dust falling from the ceiling.

WATERFALL SPLASH

Splashing water for a waterfall.

MATERIALS

We geared this pack with the materials pre-configured for all its various assets' needs. It's best to use the provided materials instead of creating new ones from the pack's shaders.

FOG COLORING

Tint a Sprite (or Sprite Shape) according to its Z position.

Tints the sprite by defining a range where *From* is the position without tint and *To* is full tint. There is a different color (and range) for background and foreground to allow more stylistic control.

The provided materials are pre-configured with fog coloring to match the pack's ambiance.

The pack's shaders don't rely on Unity's built-in fog.

WIND

The pack's Wind system is composed of a material and a component.

Materials pre-configured with a Wind-supported shader exist in the materials folder.

While prefabs are pre-configured with appropriate material and component for static sprites that require wind, Sprite Shapes require manually setting a material and a component for wind support.

Only after adding a `Wind Options (Sprite)` component, the wind animation will start.

For each instance, you can use it to customize the Speed, `Noise` which adds a wobble movement, and `Sway` which determines the amount of movement at the side farthest than the origin. The `Sway Origin` is the side that isn't moving.

SPRITE SHAPE WIND

Adding wind to a Sprite Shape is a similar process to a normal Sprite. Note that you should use a material with a name containing `wind (shape)` and the `Wind Options (Sprite Shape)` component.

The shader efficiently performs the wind animation; the Wind Options component only configure the renderer instance with the desired behavior via a Material Property Block.

DUNGEON MATERIALS

DUNGEON

The main material for this pack provides dark fog coloring.

DUNGEON – WIND

Same as the basic Dungeon material with the addition of wind movement.

DUNGEON – FLAME

An animated flame effect. Configure it to be orange or blue, with or without a rounded bottom.

DUNGEON LAVA

The main material for the lava zones has a stronger red fog coloring.

DUNGEON LAVA – WAVES

Same as the basic Dungeon Lava material with the addition of waves movement.

Only for Sprite Shapes.

TEMPLE MATERIALS

TEMPLE

The main material for this pack provides dark fog coloring.

TEMPLE – WIND

Same as the basic Temple material with the addition of wind movement.

TEMPLE – FLAME

An animated flame effect. Configure it to be orange or blue, with or without a rounded bottom.

TEMPLE – STREAM

Animates the texture of the water in an endless movement loop.

Only for Sprite Shapes.

COMPONENTS

Besides the scripts we created for controlling various parts of this pack, we also provide a handful of MonoBehaviour components to enrich your environments.

Components are located under the `2D Hand Painted` section of the **Add Component** menu.

CAMERA CONTROLLER

A simple camera controller, allowing navigation in the Demo scenes.

Navigate using the `Arrows` or `WASD` keys; use `Left Shift` or the `Mouse Wheel` to boost speed.

WIND OPTIONS

The Wind Options component functionality is described alongside the Wind material.

ANIMATE

Utility components to quickly and easily create simple animations.

LIGHT FLICKER

Requires `Light/Light2D` component.

Randomly dims a light. Useful for an ambiance effect of a torch or a candle.

Adjustable: Speed, `Intensity Amount`.

RANDOM FRAME

Requires `Animator` component.

Start the Animator on a random frame. Helpful in creating variations when you have multiple instances of a single animation.

ROTATION

Spin a Game Object in a full circle repeatedly.

Adjustable: Speed.

SWING

Rotate a Game Object back-and-forth.

Adjustable: Speed, `Movement Amount`.

TRANSLATE LOOP

Moves an object horizontally; when it reaches an edge, it relocates to the other edge and resumes movement.

Adjustable: Speed, `Left World X`, `Right World X`.

STRUCTURE

After importing the pack, you should have the 2D Hand Painted folder added to your project's Assets folder. This folder contains assets from all the 2D Hand Painted bundle packs.

For the most, what you are looking for is inside the **Prefabs** and **Sprite Shapes** folders.

$COMMON

Assets and resources that are shared between all the 2D Hand Painted Bundle's packs.

In general, you shouldn't have to look inside this folder; we will expressly state if an asset mentioned in this manual is located inside the common folder.

EDITOR

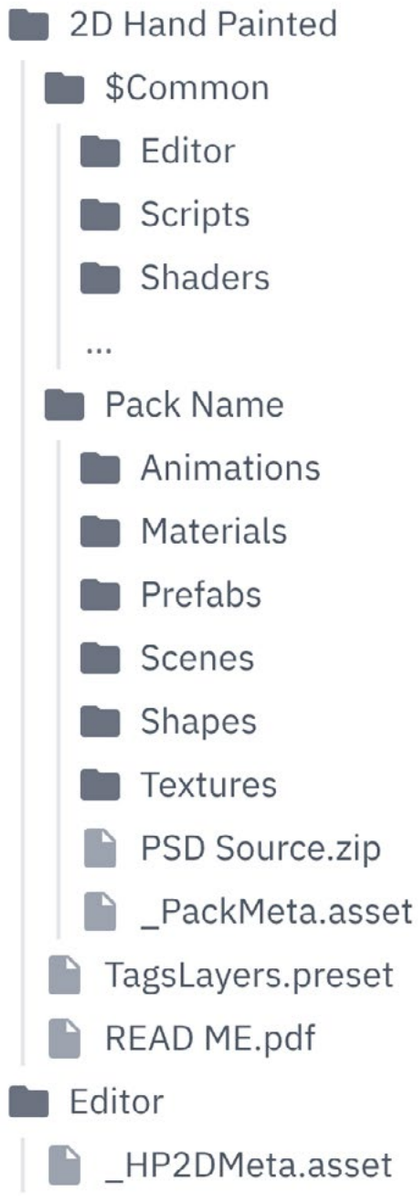
Resources we use for providing you with intuitive workflow while using this asset.

SCRIPTS

Scripts for controlling effects, animations, etc. If the script is a MonoBehaviour intended to be used by you, it will appear inside the **Add Component** menu. Otherwise, it is already configured for you inside the appropriate prefabs.

SHADERS

The shaders are located under the **`Hand Painted 2D`** section. As mentioned previously, this bundle has pre-configured materials; we advise using them instead of creating new materials.



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STRUCTURE

PACK FOLDER

Each pack has a folder containing all of it's dedicated assets.

ANIMATIONS

Animations and Animation Controllers used to breathe life to some of the objects. Some packs may not include the Animations folder.

All animated objects are configured with an Animation Controller inside a prefab, so you don't need to connect anything manually.

MATERIALS

There are a variety of materials for each pack.

The prefabs are pre-configured with material for sprites, but for Sprite Shapes, you will need to manually assign a material (as discussed in the Materials chapter).

PREFABS

This is the **main folder** to look inside while using this asset. It contains all sprites and effects ready to drop into a scene, pre-configured with materials, scripts, effects, etc.

SCENES

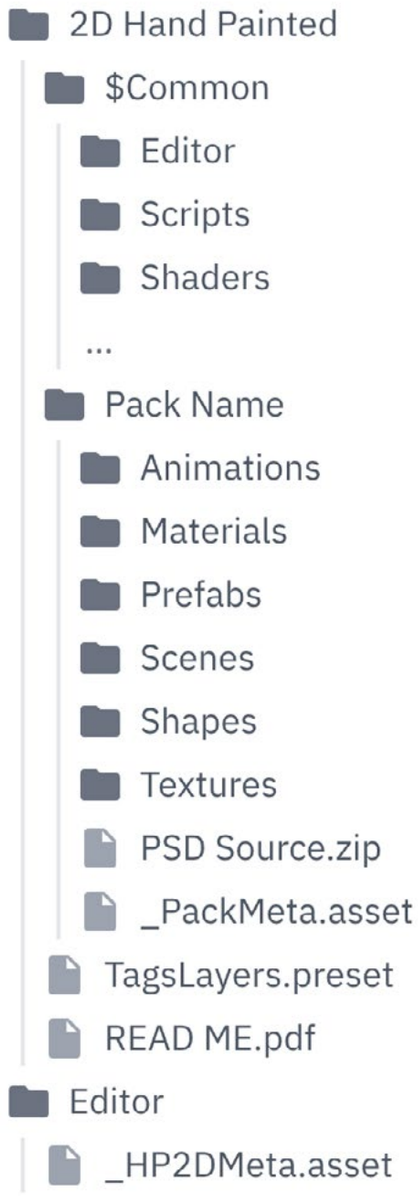
A pack contains two scenes:

Spritesheet — Lays out the pack's various prefabs, grouped by categories.

Demo — Showcase of the usage of the pack's Prefabs, Shaders, and Sprite Shapes. **It's a great place to start** when looking to explore what this pack has to offer.

SHAPES

Contains Sprite Shapes Profiles to create beautiful arbitrary-shaped sprites.



STRUCTURE

TEXTURES

Quality, high-resolution hand-painted sprites next to a few textures used by some of the VFX.

We organized the sprites into sprite sheets, designed to achieve highly optimized GPU draw times by utilizing batching.

PSD SOURCE.zip

An archive containing all the source Photoshop PSD files.

We recommend deleting the PSD zip from the project. If required, transfer it to a different location on your computer before deleting it.

_PACKMETA.asset

This file is required for installing the pack, it will be removed by the Installer.

Do NOT delete this file!

TAGSLAYERS.preset

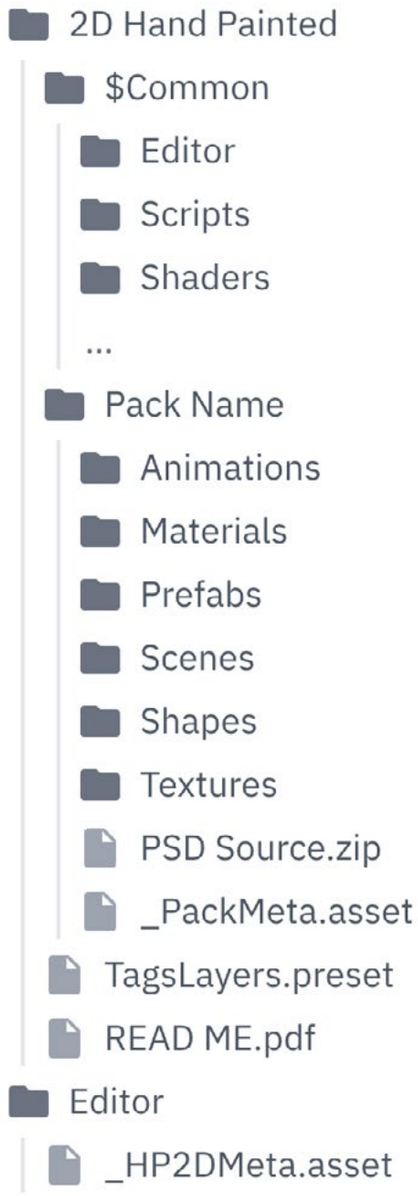
A preset with pre-configured sorting layers. The Installer window process will apply on your behalf.

You may opt out of applying it.

_HP2DMETA.asset

This file is required for installing updates smoothly in the future.

Do NOT delete this file!



COMMON ISSUES

The following are some issues we encountered more than once. Try looking for a solution before sending us a question – we may have already answered it.

HOW CAN I OPEN THE INSTALLER WINDOW?

If the Installer window doesn't show up after importing the asset, make sure to correctly configure the Universal Render Pipeline.

To manually open the Installer, open it through the 2D Hand Painted/Install menu.

If you previously installed a different pack from the 2D Hand Painted bundle, there is no need to rerun the installation process.

I HAVE ERRORS IMMEDIATELY AFTER IMPORTING THE ASSET.

Make sure to install the Universal Render Pipeline before importing the asset.

I'M USING THE UNIVERSAL RENDER PIPELINE, BUT THE INSTALLER IS ASKING FOR A 2D RENDERER.

The Universal Render Pipeline has a few renderers; instead of using the Forward Renderer, you should configure it to use the **2D Renderer**.

Check out Unity's documentation on configuring it.

I ADDED A WIND-SUPPORTED MATERIAL, BUT IT'S NOT WORKING.

To add a wind animation, both a wind-supported material is required as well the `Wind Options` component. *Please read the Wind manual.*

HOW TO SET UP A PARALLAX EFFECT?

1. Configure the camera's projection to **Perspective**.
2. Configure the *2D Renderer Data* asset's *Transparency Sort Mode* to **Orthographic**.

SPRITES ARE ALL PINK.

Please perform the following checks:

- If you haven't run the Installer reopen Unity and follow the Installer process.
- Make sure the pack's materials are configured with a shader.

SPRITES JITTER AS CAMERA MOVES.

Configure the *2D Renderer Data* asset's *Transparency Sort Mode* to **Orthographic**.

COMMON ISSUES

A SPRITE SHAPS IS NOT TINTED AS NORMAL SPRITES DO.

Make sure to add material from the pack whenever creating a new shape, as described in the Shapes section.

SPRITE RENDERERS HAVE MISSING SORTING LAYERS.

You may have opted out of applying the provided Tags and Layers preset during the installation process.

Please apply the preset `TagsLayers.preset` that is provided in this pack in the Tags and Layers manager.

STACKED SPRITES SLIDE WHEN THEY SHOULD MOVE IN SYNC.

Make sure they have a similar Z position. Alternatively, add a Sorting Group component to their parent Game Object.

Although we have invested significant efforts to provide you with the highest–quality product possible, in case you find something missing, unclear, or have a suggestion, please contact us – **we are here to assist, help, and support!**

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