Camera Controller

by Gaskellgames

'Tools / Camera' for Unity 3D game engine

USER GUIDE

Release 1.4.0

October 2023

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Getting Started:

Overview

This user guide was created to provide a basic overview of the features functionality of the asset.

Installation

Once you have downloaded the asset **Camera Controller - Gaskellgames** from the Unity's Asset Store, go to: "Assets > Import Package > Custom Package…". In the Import Asset Window, find and select **Camera Controller - Gaskellgames**. After the 'import package' window appears in Unity, verify that all items to import are selected and then click the import button in the bottom right of the window.

Quick Start

The content of the asset will be found in the project window, under assets and within a header file with the name **Gaskellgames**.

All content that you as the end user are expected to interact with is under the sub folder with the name **Content**.

An up-to-date copy of this guide can be found under the sub folder with the name **Documentation**.

All back-end files and resources that are required to make the assts work can be found within the sub folder with the name **Resources**.

Support & API documentation

Should you have any questions or require assistance, please join the official Gaskellgames Discord:

https://discord.gg/nzRQ87GGbD

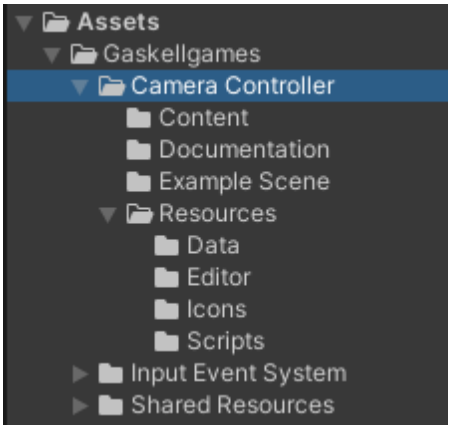
In the event you are unable to find the information you seek on the forums or discord, you can contact Gaskellgames via the weblink:

https://www.gaskellgames.com/contact

Asset Content:

File Structure

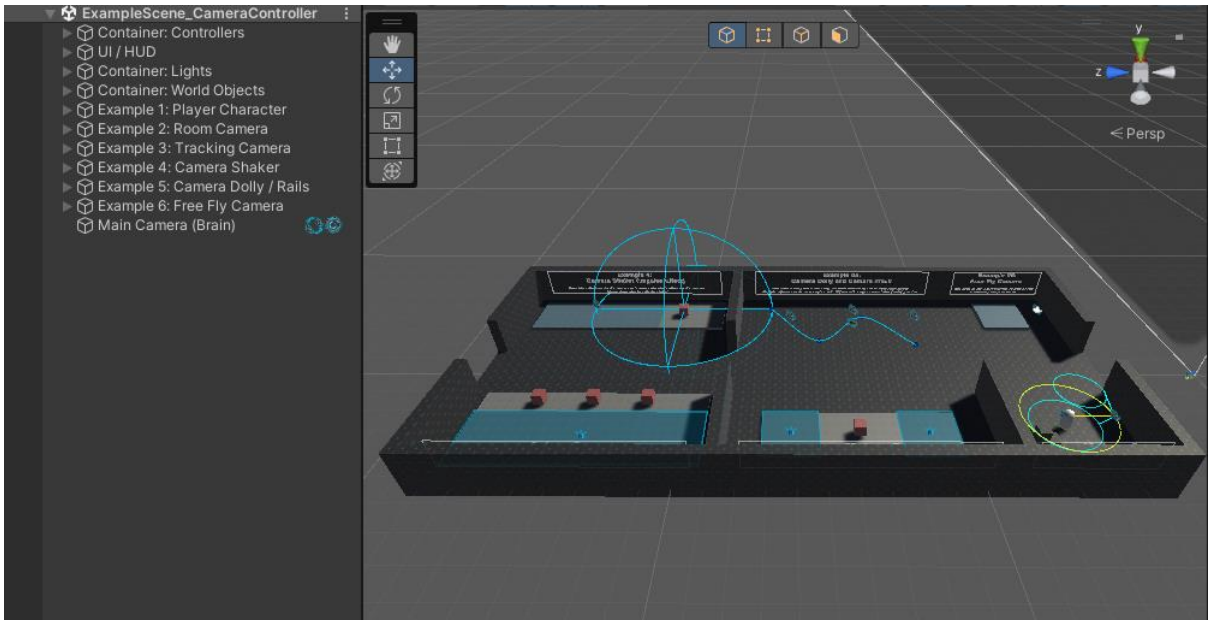
The files and content within the asset are laid out in the same way as all Gaskellgames assets. You will find the asset name under the header file of Gaskellgames, with all content that you as the end user are expected to interact with to be found under the sub folder with the name Content. The asset version's up-to-date copy of this guide can be found under the sub folder with the name Documentation, and all back-end files and resources that are required to make the assts work can be found within the sub folder with the name Resources.



There is also an example scene with a working version of the asset should you need to view an example of the asset.

Example scene

The example scene, found within the resources folder, can be viewed to see a working version of the asset. For the asset **Camera Controller - Gaskellgames** it looks as follows:

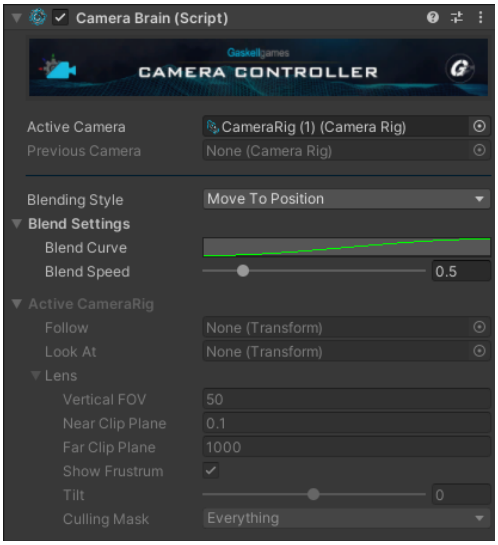


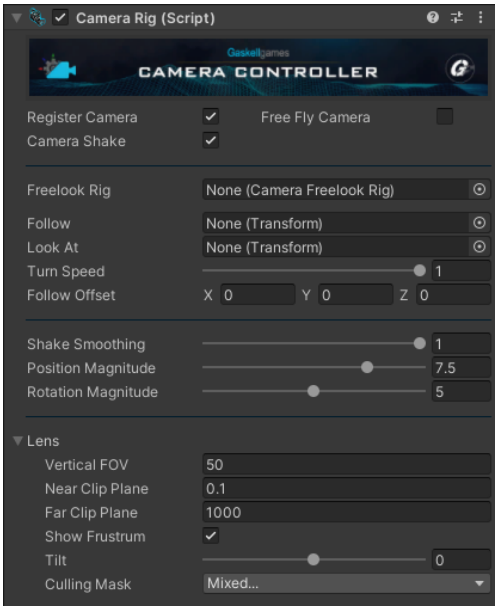
Within the scene, you will find a scene camera and directional light source, along with a working setup of each camera controller script.

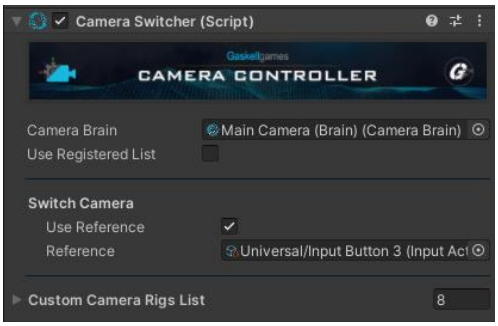
Note: The character is an example only, and does not have any movement controls, but freelook (third person) camera works

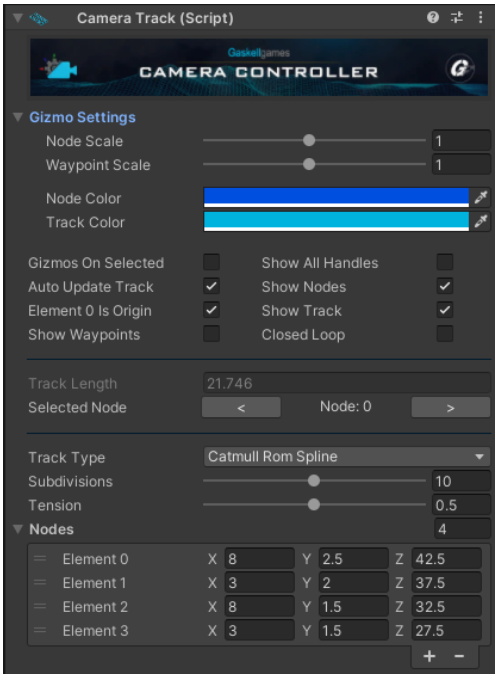
How to use / setup guide

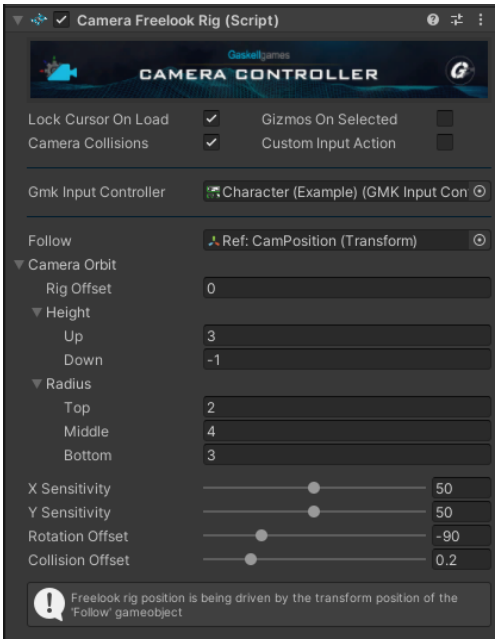
The camera controller is split into modular components: The camera brain, the camera rig, and the supporting scripts:

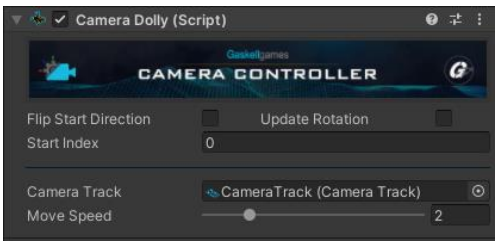


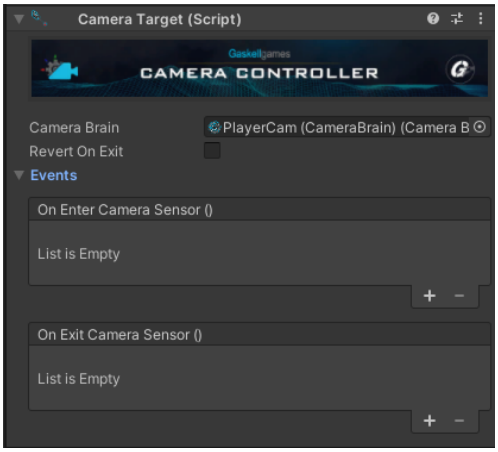


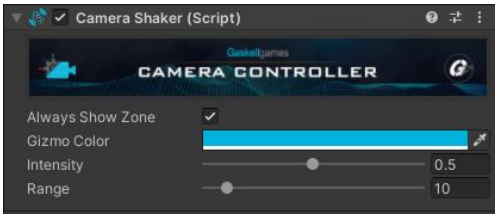


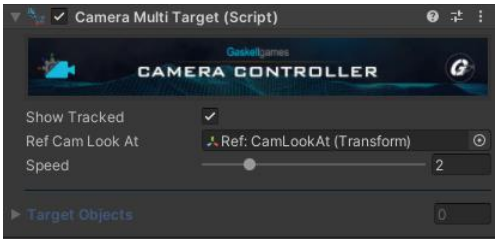












Camera Brain

The **Camera Brain** script should be added to the camera gameobject that you want the camera controller to control. To preview a camera view, you simply add the chosen 'CameraRig' into the 'Active Camera' inspector slot on the camera brain. This will also be the default camera view when the game is started.

Camera Rig

The **Camera Rig** script allows you to define a virtual camera position for the 'Camera Brain'. This allows you to use update the main camera's settings and position to match a pre-defined setup. The 'Camera Rig' script can be configured to follow another gameobject, look at another gameobject or be controlled by a 'Freelook Rig'. The camera rig can be set to receive camera shake, be set up as a free fly camera or used alongside the dolly and track system to set up cinematic camera shots.

Camera Rigs are used in all camera types:

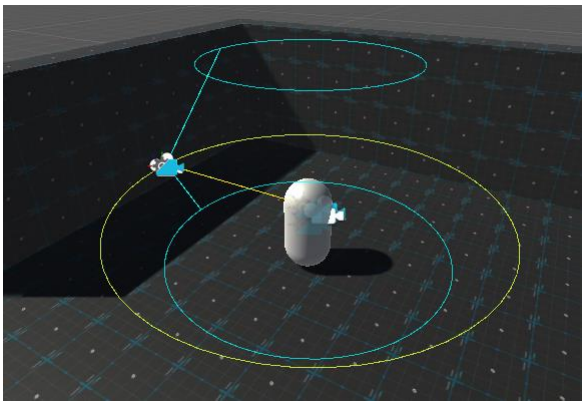
- First person,
- Third person: Follow,
- Third person: Freelook,
- Top-down,
- Room camera,
- Multi-Target Camera.
- Cinematic Camera.
- Free Fly Camera.

Camera Freelook Rig

The **Camera Freelook Rig** script allows the user to define an orbit and position that a Camera Rig will follow. Freelook Rigs allow you to adjust the height and radius of the camera orbit for three locations: Top, Middle and Bottom. The freelook rig with then blend between these orbits to create a dynamic orbit that a third person camera can follow.

Camera Freelook Rigs are used for the following camera types:

- Third person: Freelook,
- Top-down



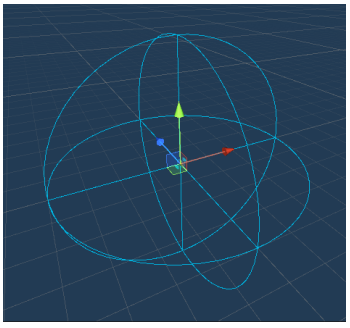
Camera Switcher

You can use the **Camera Switcher** to quickly and easily switch between all registered **Camera Rigs**, or a custom list of **Camera Rigs** by pressing *C on keyboard (north action on gamepad)*

Note: Input is using the new input system

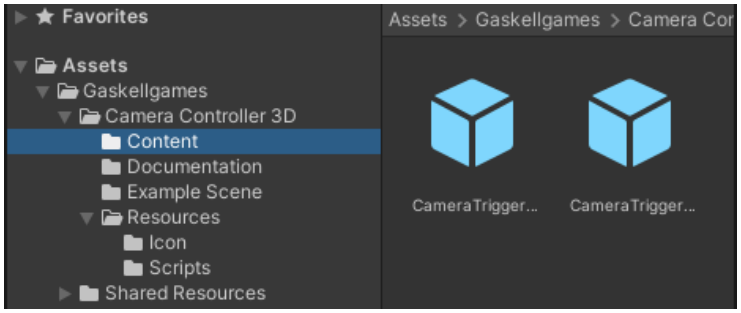
Camera Shaker

You can use the **Camera Shaker** to quickly and easily add triggerable (and stackable) camera shake effects to any **Camera Rigs** with camera shake toggled on. Any camera tig that has camera shake enabled, and is within range of the shaker, will be shook when the effect is triggered.



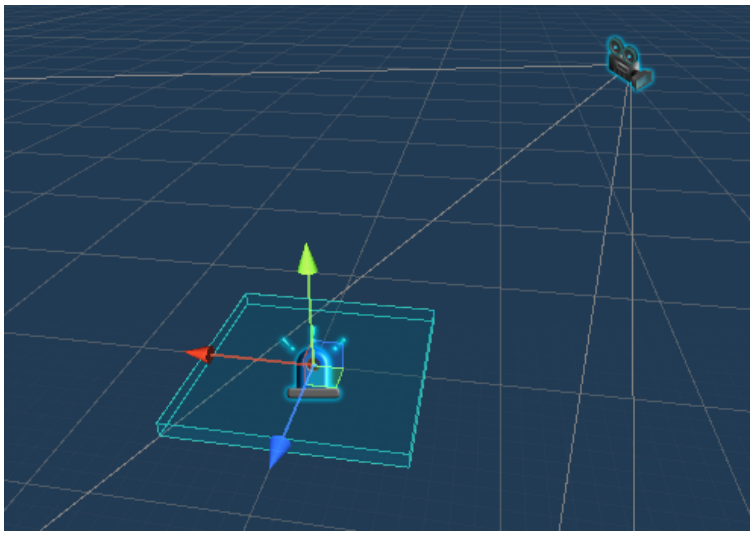
Camera Trigger Zones & Multi Target Cam

Should you wish to have a specific camera angle (room camera), you will need to add a camera trigger zone. This can be dragged and dropped from the Content file of the asset, or using the gameobject menu under Gaskellgames and Camera Controller.



You can adjust the settings for the trigger zone in the inspector panel for the **Camera Trigger Sensor** script. Settings include the sensor type (cube / cylinder), the scale, and the offset.

In order to change the view and camera settings, you will need to change the position of the **Ref: CamLookAt** game object and view the inspector for the **Camera Rig** gameobject.



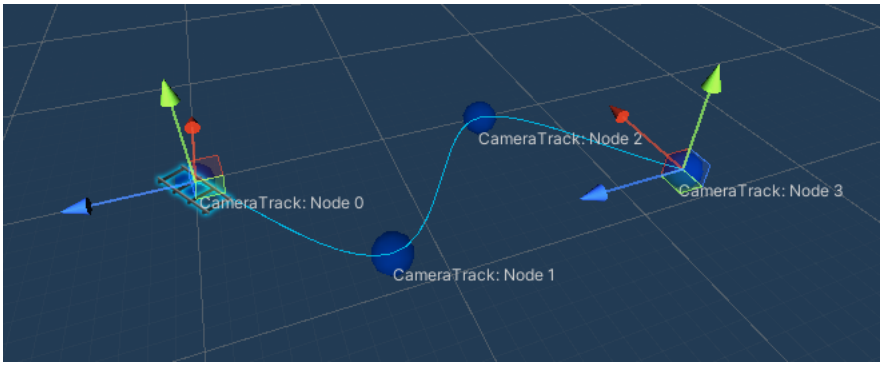
To create a multi-target cam, you will need to add a **Camera Multi Target** script to the trigger zone gameobject and assign the **Ref: CamLookAt** game object in the inspector.

The target list is read only in the **Camera Multi Target** script and is auto assigned when a suitable game object is within the sensor trigger zone. A suitable object is a gameobject with a collider and a **Camera Target** script.

Note: The Camera Trigger Sensor gameobject requires the tag 'CameraSensor'

Camera Dolly & Track

The **Camera Dolly** & **Camera Track** scripts allow you to specify a set path that a camera should take, and the speed the camera will travel along it. The track can be easily maneuvered into the shape and position you require using the extra scene view handles. These can be set to show all, or just the origin and one other selected node.



The track can be set to Linear, Basis Spline or Catmull Rom Spline. Linear will move in a direct line from one node to the next. Basis spline will move in a curve using the nodes as control points. Catmull Rom Spline will move in a curve like the Basis Spline, but so that the curve always goes through every control point position.

To assign a dolly to a specific path, simply add the **Camera Track** reference in the inspector of the **Camera Dolly**. To assign a **Camera Dolly** to a **Camera Rig**, add the **Camera Dolly** as the follow reference in the **Camera Rig** inspector.

Shadow Transform

The **Shadow Transform** script allows you to assign some of the features of the camera rigs to other game objects. The script allows quick and easy parent-child relationships without having to parent a GameObject to another GameObject. With the script you can assign a follow, look at and/or rotate with object. You can toggle constraints so that the object only inherits properties in set axis.