Smooth! Orbit Cam for Unity
Documentation

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Introduction

Thank you for buying Smooth! Orbit Cam - A script to make your camera moving smoothly around a defined object in an orbital/3rd person way - working for Desktop and Mobile!

Overview

This documentation provides basic information about Smooth Orbit Cam and how to configure the script. It is separated in two parts - a quick guide how to get started and a more detailed part with all important information and what to do step by step.
For any comments, suggestions or bugs please write a mail to info@70-30.de. If you like the unity package, please don't forget to vote for it in the asset store :)

Configuring Smooth! Orbit Cam - in general

Basically Smooth Orbit Cam offers the following components:
- A SmoothOrbitCam.cs script - the main scriptm also found on the prefab „CameraSystem"
- A SmoothOrbitViewChanger.cs script - to trigger perspective changes with the camera system
- A demo scene with a satellite to see Smooth! Orbit Cam working

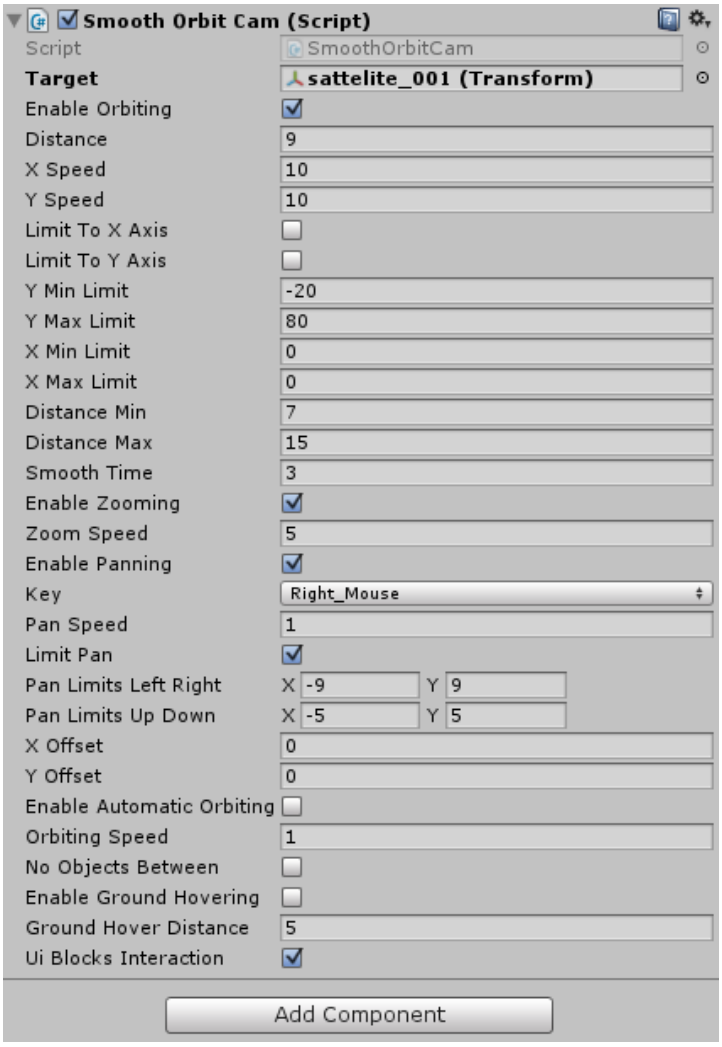
The workflow in short to configure Smooth! Orbit Cam will look as follows:

1) Drag the prefab CameraSystem into your scene
2) Configure the values as required
3) Use the cam!

Configuring Smooth! Orbit Cam - in detail

1) Drag the prefab CameraSystem into your scene
To start, go to Smooth! Orbit Cam/Prefabs and drag the prefab into your scene.
IMPORTANT: The prefab holds the new main camera for your scene. Please remove any other possible cameras from your scene that are tagged with „Main Camera".

2) Configure the values
When you click on your CamerySystem game object now, it will look like this:



Smooth Orbit Cam (Script)

Script	SmoothOrbitCam
Target	sattelite_001 (Transform)
Enable Orbiting	☑
Distance	9
X Speed	10
Y Speed	10
Limit To X Axis	□
Limit To Y Axis	□
Y Min Limit	-20
Y Max Limit	80
X Min Limit	0
X Max Limit	0
Distance Min	7
Distance Max	15
Smooth Time	3
Enable Zooming	☑
Zoom Speed	5
Enable Panning	☑
Key	Right_Mouse
Pan Speed	1
Limit Pan	☑
Pan Limits Left Right	X -9 Y 9
Pan Limits Up Down	X -5 Y 5
X Offset	0
Y Offset	0
Enable Automatic Orbiting	□
Orbiting Speed	1
No Objects Between	□
Enable Ground Hovering	□
Ground Hover Distance	5
Ui Blocks Interaction	☑

Let's go through the options.

Target:
Obviously this is the target of your orbit cam. Drag any game object you would like to have in focus here.

Enable Orbiting (new!): You can now disable orbiting, if you want to use the camera only as a panning-camera.

Distance:
This is the distance between the camera and the object. it will be modified during playmode with the mouse wheel (Desktop) or by 2-finger-touch-gesture-zoom (Mobile).

X/Y Speed:
The movement speed of your camera when moving. Increase for more sensibility.

Limit to X/Y Axis:
In some cases you might want to use only one rotation axis. Check the box to limit orbiting to your preferred axis

X/Y Min/Max Limit:
These degree values limit the angle for the X/Y axis of your camera to avoid flipping around the target object.

Distance Min/Max:
By scrolling your mouse wheel (or 2-finger zooming on mobile devices) you can zoom in and out from the target object. The distance values define the zooming limits.

Smooth Time:
This is the damping value that will smooth out the object after releasing the mouse button/finger. The higher the number, the shorter the smoothing effect.

Enable Zooming: Enable or disable zooming

Zoom Speed:
Obviously the factor of the speed applied when zooming.

Enable Panning:
If you want allow target object to be panned around, check this box.

Key:
The input key that will pan the object around. In desktop version, you will be able to select „Right Mouse“, „Middle Mouse“ or „Space“. On mobile devices, panning works by touching with 2 fingers and dragging.
New! You can now also select „Left Mouse“. In this case, Enable Orbiting will automatically be disabled and a single touch on a mobile device will pan the camera instead of orbiting it (used for strategy games etc.)

Pan Speed:
The pan speed factor.

Limit Pan:
Check this box if you want to limit the pan. This is useful when a target object should not move outside of the screen when panning.

PanLimitsLeftRight:
To find out fitting values, pan your object to the side of the screen where you want your limit in playmode. then look at the main camera game object inside the „CameraSystem“ and it‘s transform values. The x-Value will be interesting to set the limit.

PanLimitsUpDown:
This works exactly as the LeftRight-values, just for up and down.

X/Y Offset:
This lets you offset your camera focus. In some cases, you object might not be exactly in the center and you can correct this by adjusting the offset values.

Enable Automatic Orbiting:
If set to true, the camera will start orbiting around the target object automatically!

Orbiting Speed:
The speed for orbiting around the object. Negative values reverse orbiting direction.

NoObjectsBetween:
This option allows you to avoid obstacles between your camera and the target object. When checked, the camera will move towards your target object when there is any object between the camera and the target object.

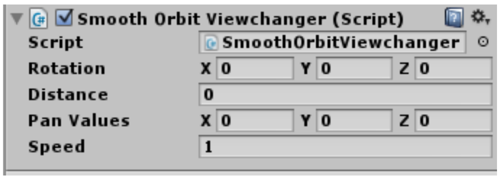
EnableGroundHovering:
Currently in development to have a more smooth movement. At the moment, enabling will limit the vertical axis to a set value over the ground (see GroundDistance)

GroundDistance:
Defines the value the camera will hover over the ground if you have a terrain in your project or anything else that uses a collider.

UI Blocks Interaction:
This is useful if you have a Unity UI and you don‘t want the camera to be interactable when the user does something in the UI. All clicks on buttons and swipes on scrollbars etc. will not move the camera when checked.

3) Use the cam!

Now you can use the CameraSystem. Use it as third person camera for a player object (for example in an RPG) or anything you can imagine. Adjust the values to fine-tune the movement behavior.



☑ Smooth Orbit Viewchanger (Script)

Script	SmoothOrbitViewchanger					
Rotation	X	0	Y	0	Z	0
Distance	0					
Pan Values	X	0	Y	0	Z	0
Speed	1					

Addition: Smooth Orbit Viewchanger

A new feature now is the SmoothOrbitViewChanger.cs script. This script makes triggered perspective changes possible. For example, if you want to be able to click on an element on your target object to change the camera position to this element, drag the script on the element and configure the camera rotation, distance and pan values for the perspective change.
The best way to get the right coordinates is to use playmode and orbit in a good position. Then, note the rotation values as well as the distance and the pan values (the pan values are the position values of the main camera inside the CameraSystem) and enter them in the fields of the inspector window. Don‘t forget to add a trigger collider to the target element of your target object that will trigger the perspective change when clicked.

This also works for UI elements. You can drag the script on buttons and configure the values. When the button is clicked, the camera will perform a perspective change.

We hope you benefit from Smooth! Orbit Cam. Please write questions, suggestions, bugs or anything else to info@70-30.de. Feel free to visit our sites!

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