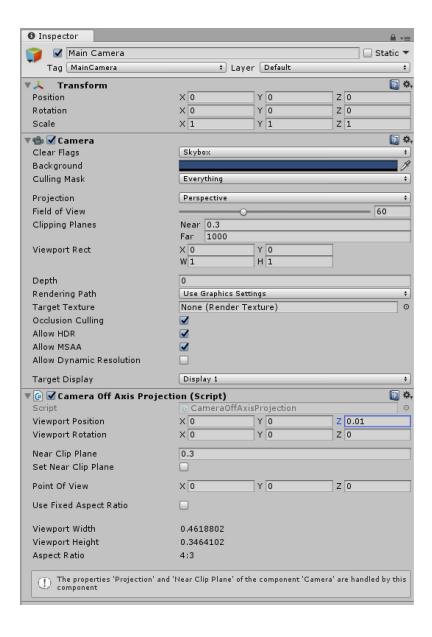
Camera Off Axis Projection v1.0

The **Camera Off Axis Projection** component allows you to easily configure cameras with point of views that is not on the symmetry axis of the view plane.

Adding Component

Select the camera game object and add the **CameraOffAxisProjection** component. Or create a new game object and add the **CameraOffAxisProjection** component. The camera component will be added automatically.



Properties

| Property | | Function |
|------------------------|--------------------------------|--|
| Viewport Position | | Local position of the view plane. The component Z must be greater than or equal to 0.01 |
| Viewport Rotation | | Local rotation of the view plane, expressed in euler angles |
| Near Clip Plane | | The near clipping plane distance |
| Set Near Clip Plane | | If true, the near clipping plane distance is set equal to the distance between the point of view and the of view plane |
| Point Of View | | Local position of the point of view |
| Use Fixed Aspect Ratio | | If true, a fixed aspect ratio is set (Aspect Width divided by Aspect Height) |
| | Aspect Width | Width of the view plane |
| | Aspect Height | Height of the view plane |
| | Use Aspect As Viewport Size | If true, the fixed aspect ratio is set as the size of the view plane |

Add the component **CameraPointOfViewController** in **CameraOffAxisProjection** game object to control the point of view position through another game object.

For more details, visit https://www.youtube.com/watch?v=ubnng50N3Xc

Details

The properties *Projection* and *NearClipPlane* of the *Camera* component are handled by *CameraOffAxisProjection* component. Also, if the properties *UseFixedAspectRatio* and *UseAspectAsViewportSize* are true, the property *FieldOfView* of *Camera* is handled by *CameraOffAxisProjection*.

The component updates the projection and transformation matrix in the *LateUpdate* cycle. Camera methods and properties that modify projection and transformation matrix (for example *ResetProjectionMatrix*, *ResetWorldToCameraMatrix* and

ResetAspect methods; Aspect or FieldOfView properties) should not be invoked from other components as they affect the correct projection of the camera.

Some post-processing effects, such as *Screen Space Reflection* or *Temporal Anti-Aliasing*, will not work correctly since they modify the projection matrix.

Version History

v1.0 - First release

Contact

Email: emimartino8@gmail.com

Linkedin: https://www.linkedin.com/in/emiliano-martino/

Visit <u>Media.Lab</u> to see the training simulators, systems that allow operators to train in the use of machines, vehicles and situations through a series of exercises, making the person feel that they are working in the real world.