



Media Sources :

Allow you to add live inputs media player image



Scene explorer :

Give you access to all editable scene objects, lights or camera



Object Inspector :

Give you access to all property of the selected item



Animation :

Open animation key framer



Rendering :

Give you access to rendering setting manager



Mixer :

Allow you to manage video outputs and display



Camera control :

Open camera control window



Control panel :

Give you access to camera switching, animation control, media player Play/Stop



Mixer 1 :

Open Mixer 1 window



Object Creation :

- Camera
- Facing Plane for green screen video
- Light
- Primitive form
- FBX importation
- Group



Object transformation :

- Transformation
- Rotation
- Scale



Editor view rendering level :

- Turn off the editor view
- Low quality
- Full quality, all Rendering options on



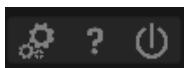
Action :

- Undo
- Redo
- Save



Layout manager

Allow you to manage Vset3D windows layout



- Preferences
- Help
- Quit

## Mouse control in editor view :


**Wheel** : Move forward backward editor view

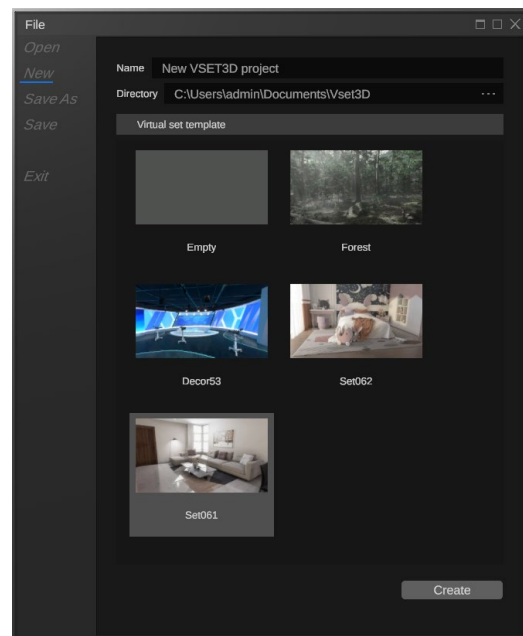
**Middle click** : Pan editor view

**Middle click + Alt** : Tilt editor view


## Quick Start

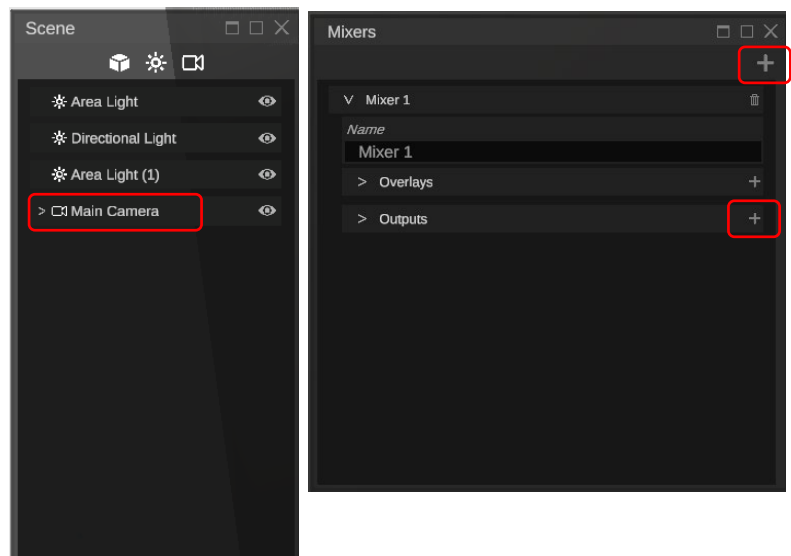
Loading a template :

1. Open File window 
2. Select New
3. Name your project
4. Create Vset3D folder in your Documents if needed
5. Select the template
6. Press Create



## Add Output :

1. Create or select a camera
2. Add mixer 
3. Add Output +
4. Open Mixer window



**Vset3D is a DirectX12 64 Bits software build for Microsoft Windows 10 or 11.**

Vset3D is based on the Unity 3D game engine, which is allow you to use command line arguments

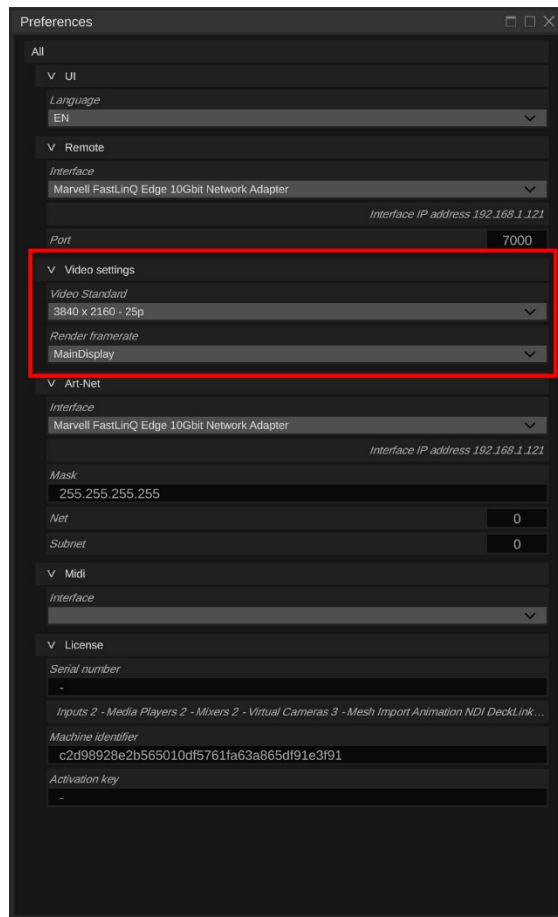
Some useful commands :

- **-monitor N**                      **Run Vset3D on specified monitor; N = monitor number**
- **-screen-height**   **Set the screen height resolution**
- **-screen-width**        **Set the screen width resolution**
- **-force-d3d11**            **Start Vset3D Studio in DirectX11**
- **-force-d3d12**            **Start Vset3D Studio in DirectX12**
- **-window-modeForce** **Vset3D in resizable windows mode**
- **-screen-fullscreen**      **Force Vset3D in full screen**

Vset3D studio natively support Blackmagic Decklink devices.

#### **Compatible Video Capture Cards (Tested):**

- DeckLink Mini Monitor
- DeckLink Mini Recorder
- DeckLink Mini Monitor 4K
- DeckLink Mini Recorder 4K
- DeckLink Duo 2
- DeckLink 8K Pro
- DeckLink Quad HDMI Recorder
- DeckLink Quad 2



Video format can be set from the Setting window.

Carefully select the resolution and frame rate as they have a direct impact on VSet3D's performance.

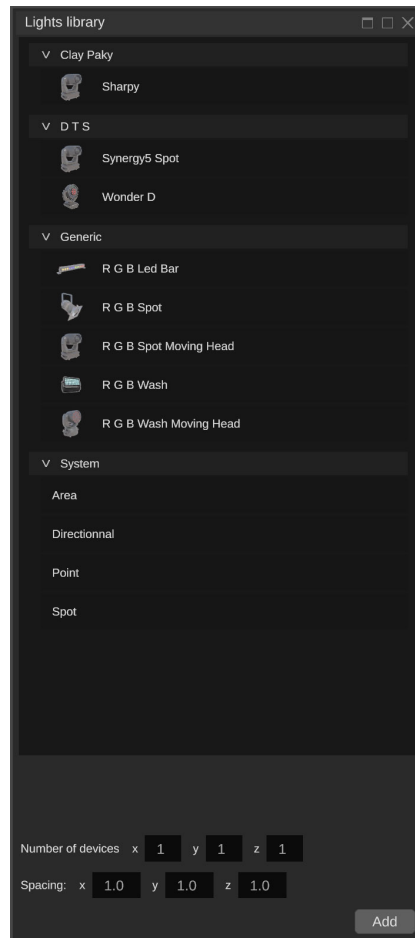
High frame rate and high resolution means high GPU load and can lead to dropped frames.

## How to Add Light

1. Press **Add light Fixture** Icon



2. Select one light from the **Lights Library**



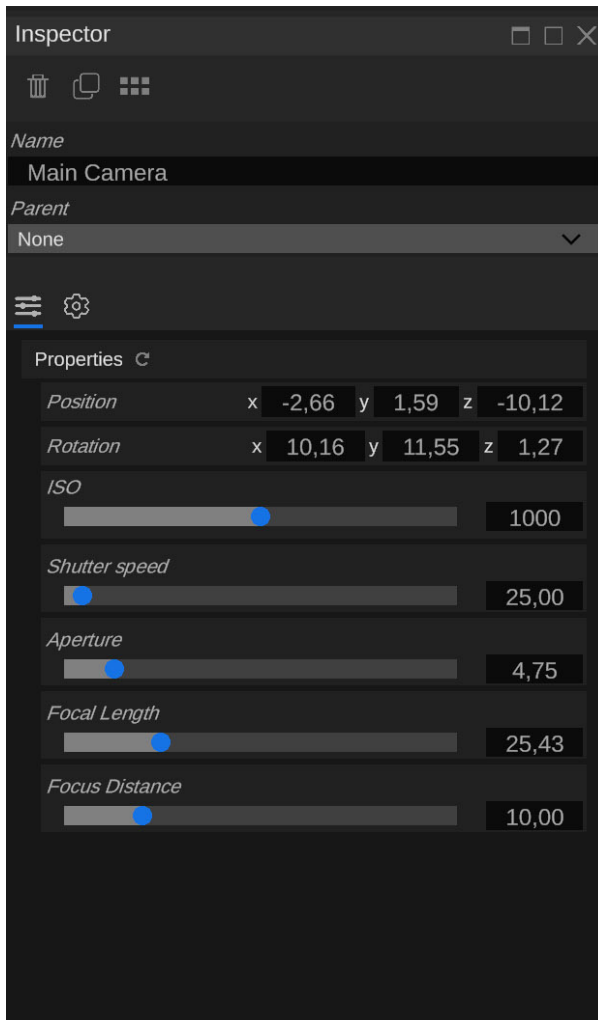
3. Press **Add**
4. Double click on the light in the 3D view to open the **Inspector** window
5. Adjust light parameters

## How to Add Camera

1. Press **Add Virtual Camera** icon



2. Double click on the Camera gizmo in the 3D view to open **Inspector** window
3. Adjust Camera parameters

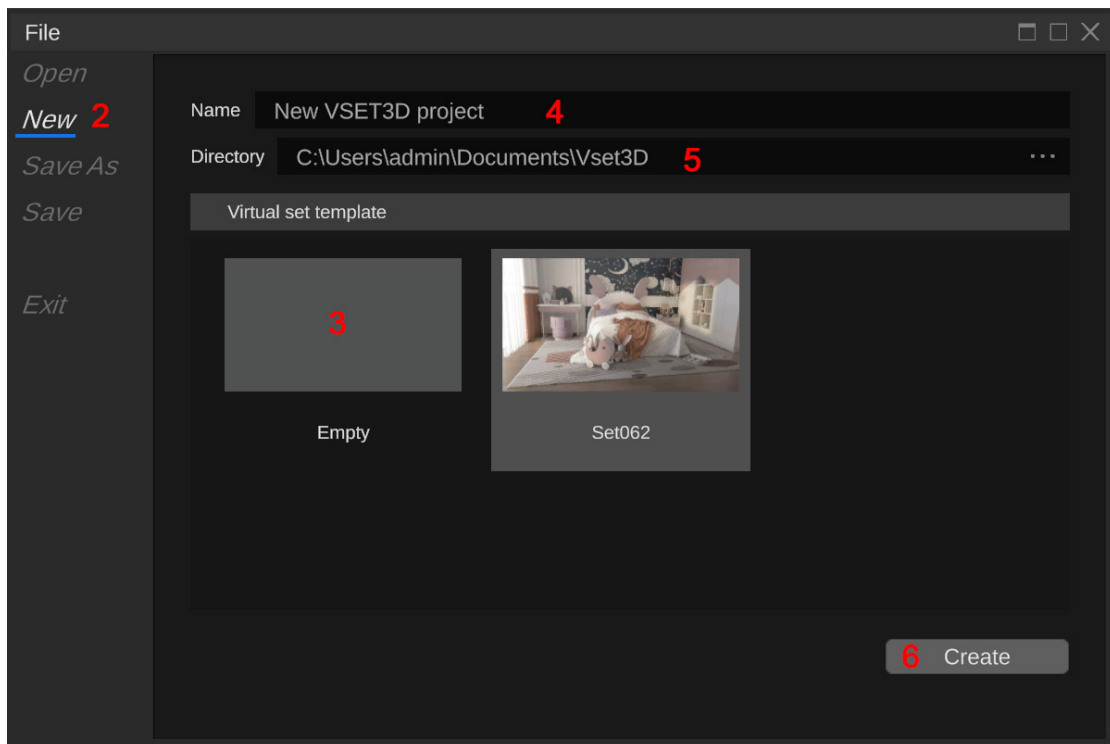


## How to Create a new Project

1. Open **File** menu



2. Select **New**
3. Select the **Empty** template in the library
4. Enter project Name
5. Set **Directory** if needed
6. Press **Create**



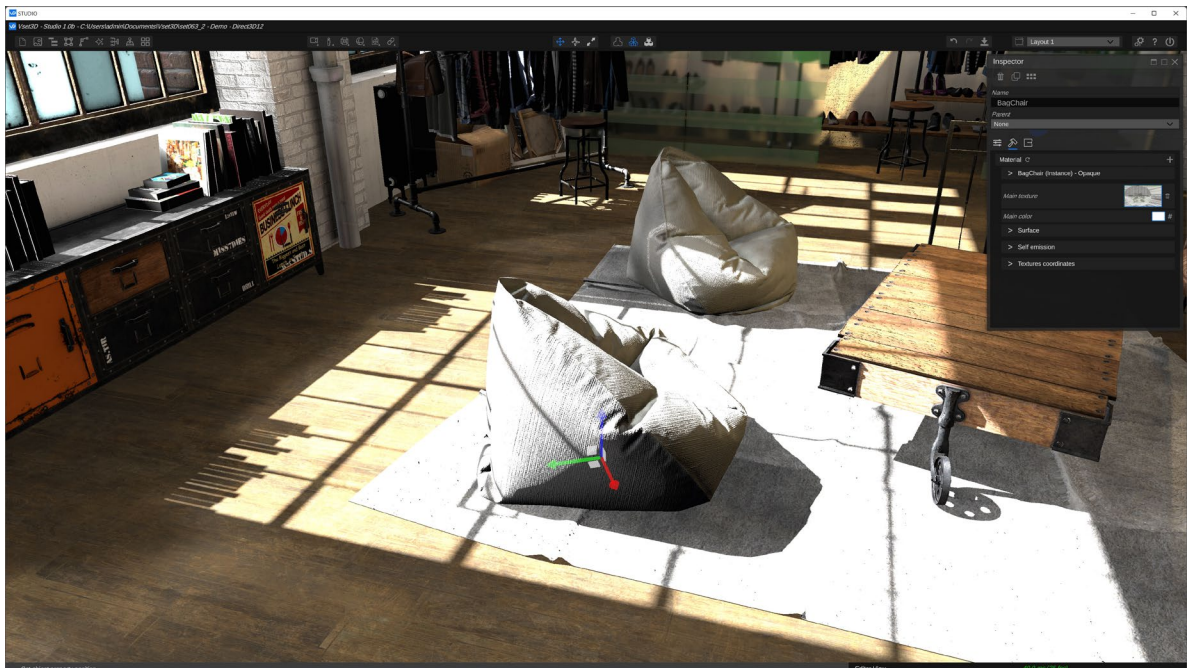


## How to Import 3D Objects

1. Press **Add Imported Mesh**



2. Browse your FBX Object
3. Double click on any object in the 3D view to open **Inspector** window



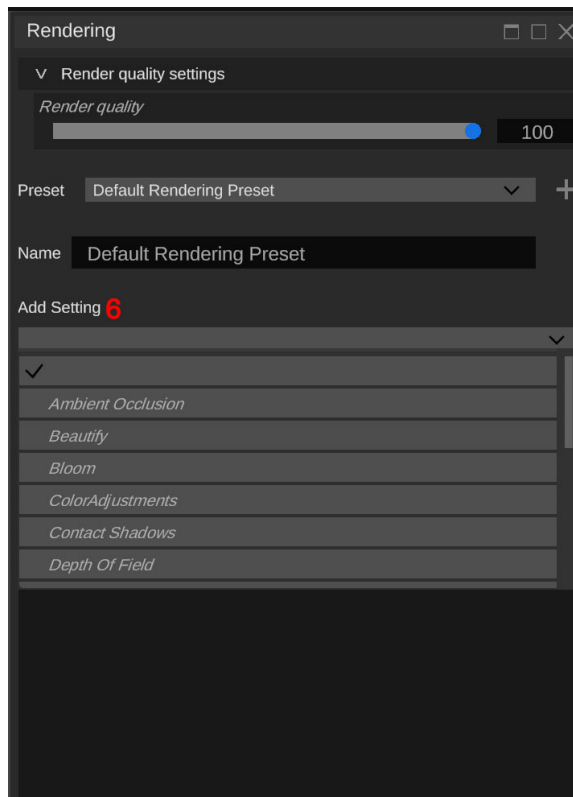
## How to Setup a basic Ray Traced Project

**Ray trace is only available on DirectX 12**

1. Create a new project
2. Add Camera
3. Add light
4. Import an 3D Set or 3D object
5. Open Rendering Window



6. Press Add Settings then ...
  - a. Add Visual Environment (Select gradient Sky)
  - b. Add Gradient Sky
  - c. Add Screen Space Global Illumination (Select Raytracing option)
  - d. Add Screen Space Reflection (Select Raytracing option)
  - e. Add Exposure (Select Physical camera)



You can now explore all rendering settings to get set the desired lighting condition.

Remember to use camera aperture, shutter speed and iso to adjust overall exposure.

## How to Import Custom 3D Set In FBX

1. Press **Add Imported Mesh**



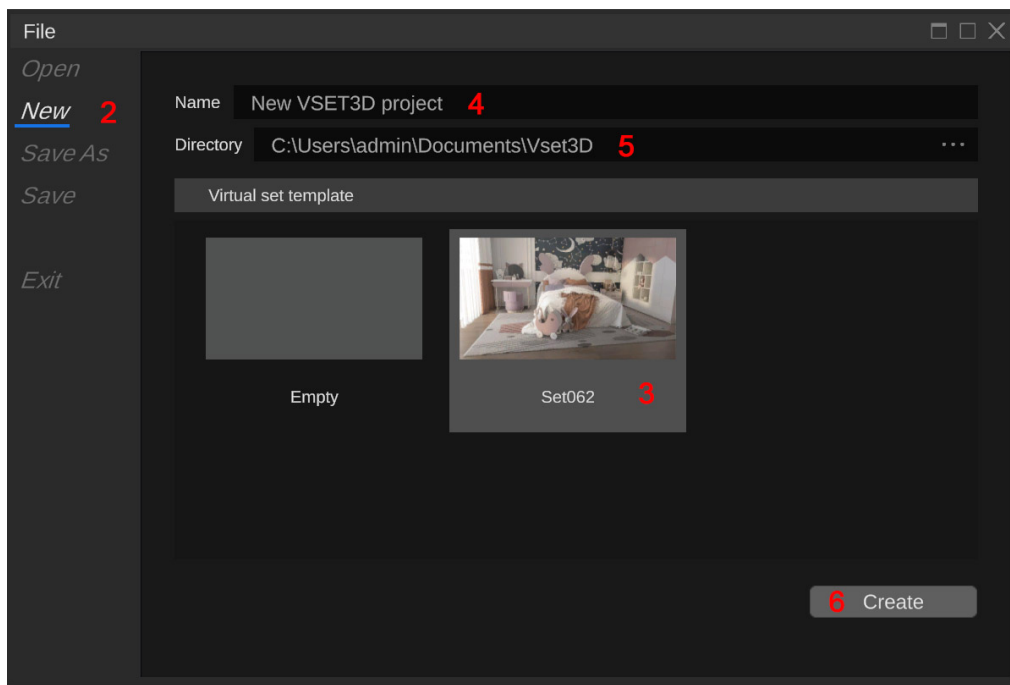
2. Browse your FBX Set

## How to Import Vset3D library

1. Open **File** menu



2. Press **New**
3. Select one template in the library
4. Enter project Name
5. Set **Directory** if needed
6. Press **Create**

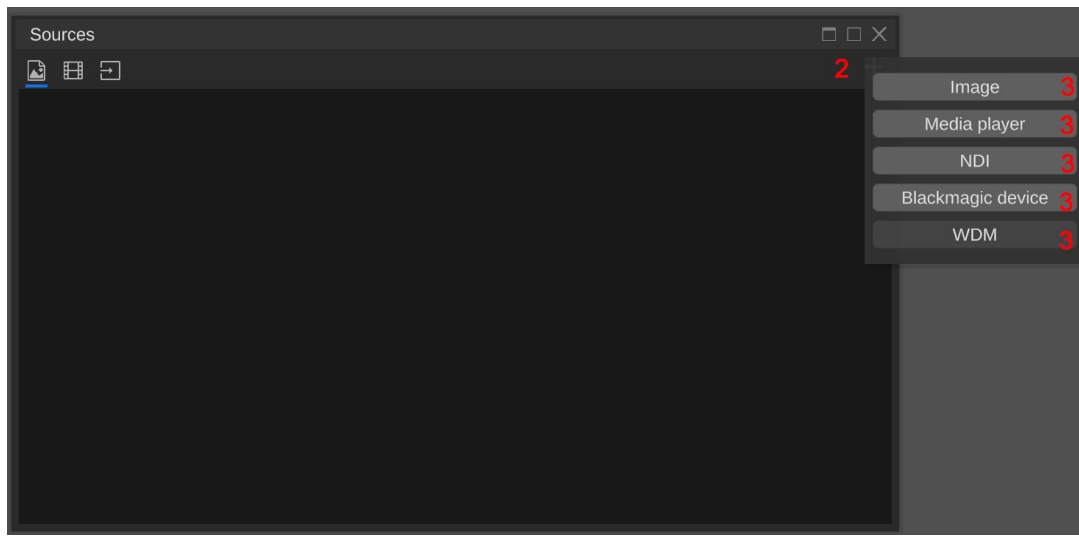


## How to Add Live Input or media

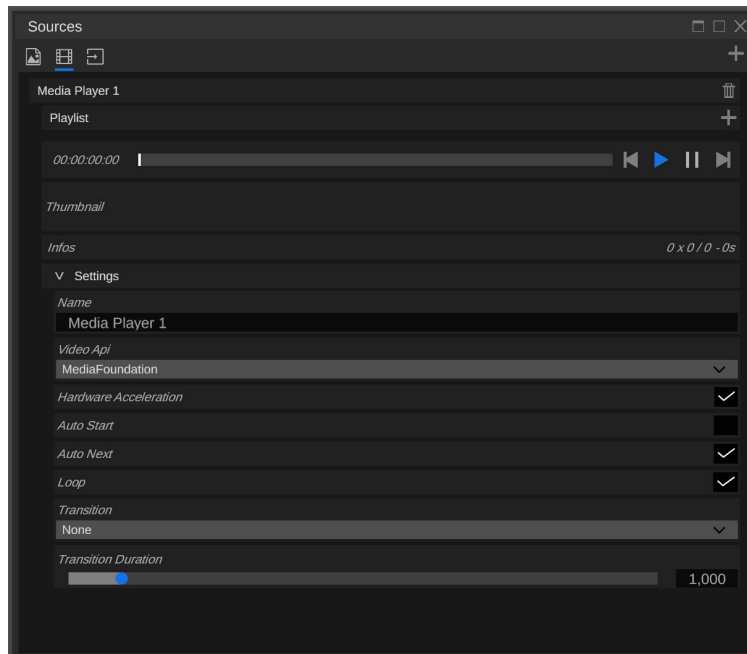
1. Open Sources menu



2. Press the plus icon (+) at the top right corner
3. Select the desired source type



4. Adjust its parameters

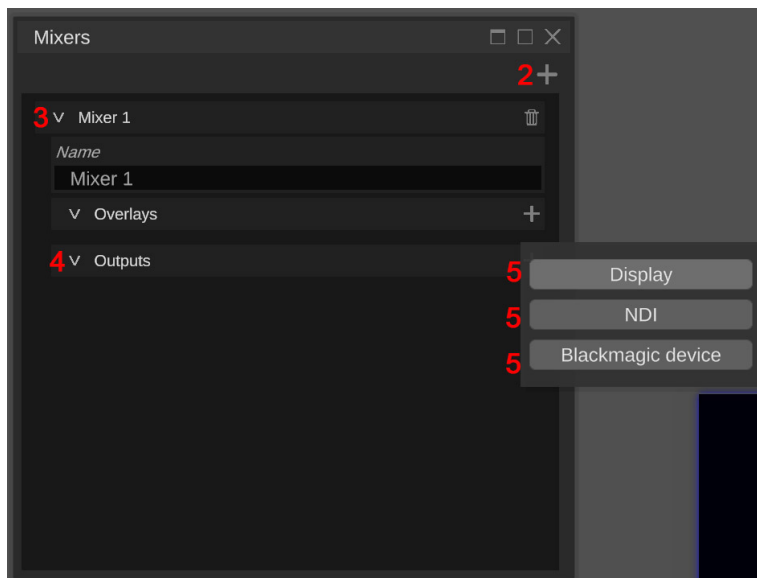


## How to Add Live Output

1. Open the Mixer menu



2. Press the plus icon
3. Press V Mixer 1
4. Press > Output
5. Select the desired Output method

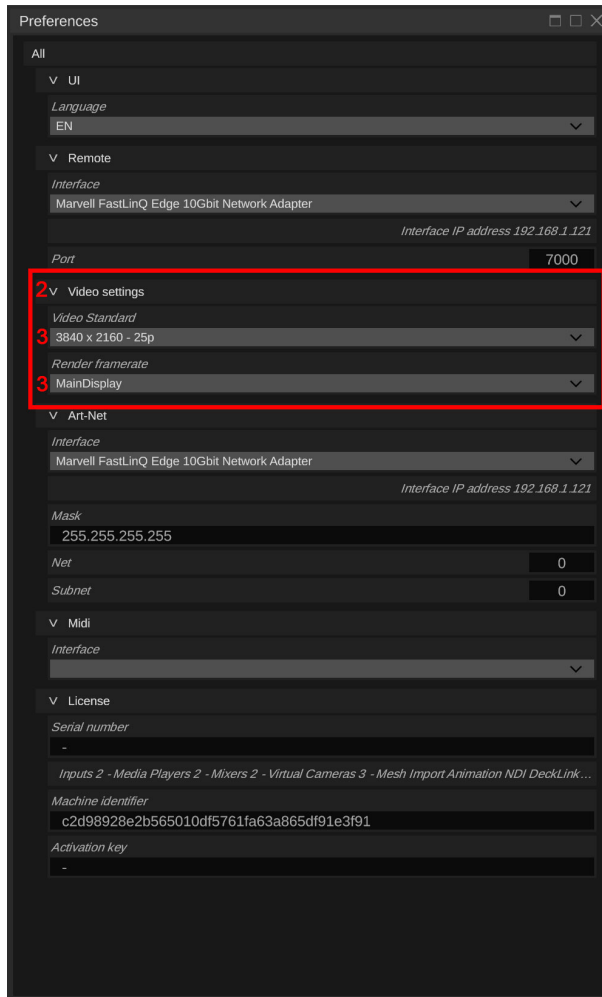


## How to Set Project Resolution & Frame rate

1. Open Setting menu



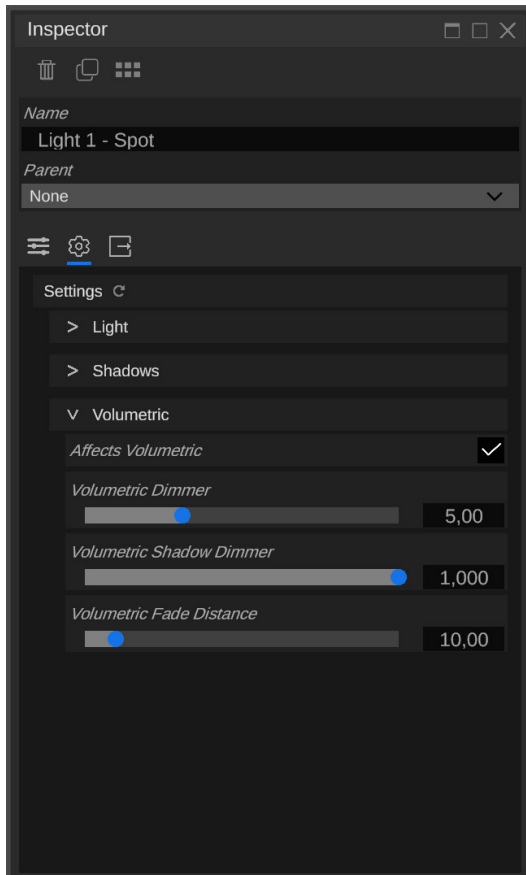
2. Press > Video Settings
3. Set the video standard and Render Frame rate



The **Render Frame rate** option set Vset3D vertical synchronization method (**MainDisplay** by default)

## How to activate Volumetric light FX

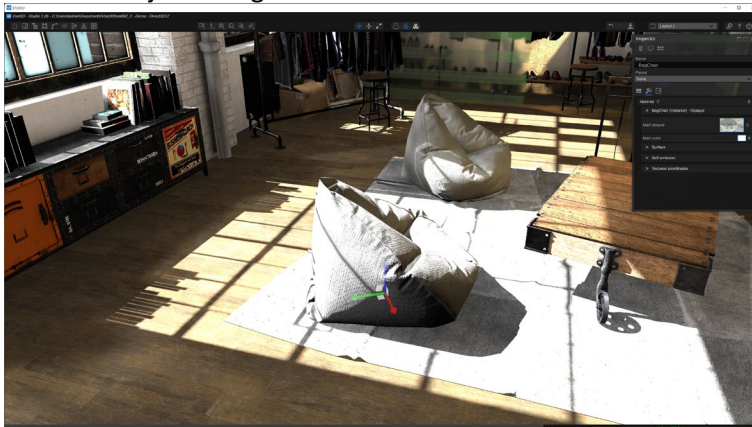
1. Set basic Ray traced project
2. In the Rendering Setting Add Fog setting
3. Use inspector to adjust Spot light Volumetric settings





## How to Animate Item

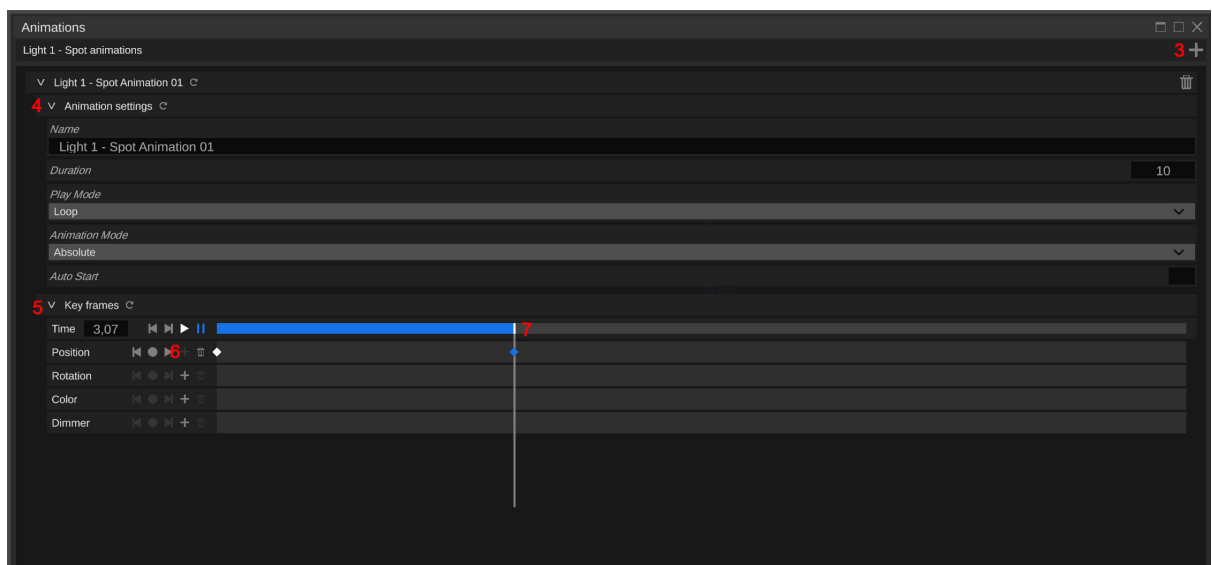
1. Select an Object or Light from the 3D view



2. Open Animation windows



3. Press the plus icon
4. Press > to deploy the parameters
5. Press Key Frames to deploy the Key framer
6. Press Position + to add key at the current time
7. Change Time
8. Move the object in the 3D view
9. Press Position + to add key at the new time



You can do the same for all available parameters. Displayed parameters depend on selected item

# HARDWARE

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## Hardware configuration

- Processor Intel / AMD
- NVidia GeForce RTX 20xx, RTX 30xx, RTX 30xx graphics card.
- 16Gb Ram.
- BlackMagic DeckLink Video capture card.
- Operating System Windows 10 or 11 64Bits.

