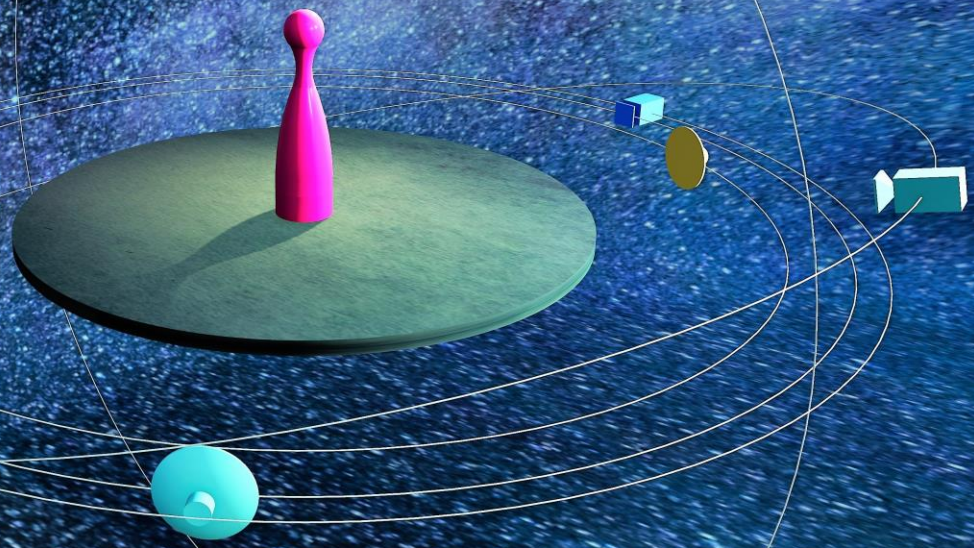
MLA Orbital Render System



User Manual

For Daz Studio Iray and Filament

by michaleuart

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Introduction:

Thank you for purchasing the Orbital Render System for Daz Studio!

It offers a streamlined setup within Daz Studio developed through years of experimenting and testing. The goal was to speed up and simplify the often-time-consuming process of finding the best camera views with just the perfect lighting for a particular character. The Orbital Render System offers a complete framework that can combine and organize the powerful tools Daz Studio offers, allowing the artist fast and accurate production of creative ideas without getting caught up in too many complicated technical details.

This is accomplished by arranging the lights and cameras around the subject, allowing them to be predictably moved into position and adjusted. Instead of loading new static cameras and lights into the scene each time, it allows the user to easily move around the scene using the same "subject focused" start-up configuration. Positioning is fast and easily done in a natural and intuitive way as you would in real life (like walking around your character without losing sight of it). More importantly, all this is possible without having to re-adjust the focal center of the lights or cameras or even the depth of field ranges when used.

Although the Orbital Render System was primarily designed for rendering a character in a relatively small space (the included infinity stage), it can easily be moved in its entirety to anywhere in a large scene while retaining focus on the subject. This is like instantly taking the entire camera and lighting crews with you to explore and document a large set.

The heart of the product is the camera group with 5 distinctive cameras and a spotlight group with 5 specific lights, all based on standards in photography. In addition, the system includes a panoramic infinity stage group, a scalable surround mesh light with 10 sections for Iray, basic HDR ambient lighting and a subject group for added convenience. All elements and groups can also be loaded individually to custom design your scene templates.

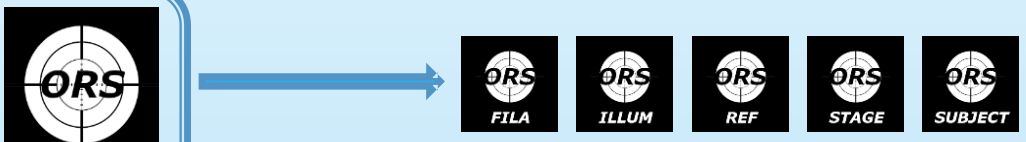
The setup works both with Iray and the new Filament render engine, with often only minor adjustments to the included HDR lighting when using the same camera view. In order to make the whole product easier to use and more accessible to Daz Studio beginners, many controls have descriptive labels in the parameters section and show only the ones that are used most frequently in standard artistic production.

The many included one-click starter scenes with the Orbital Render System help to create a base to start from and can make the creative workflow more efficient and productive for many beginning and advanced Daz users.

ORS Groups & Sets:

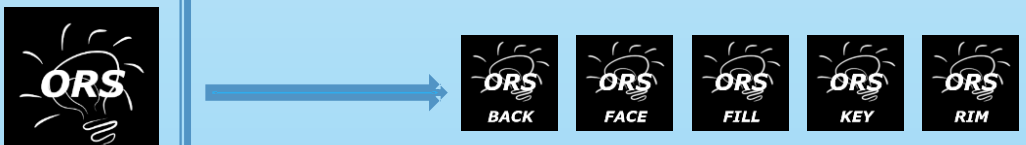
Orbital Render System (load all)

Base / Stage Group



Camera Group

Spot Light Group



Surround Mesh Light Group

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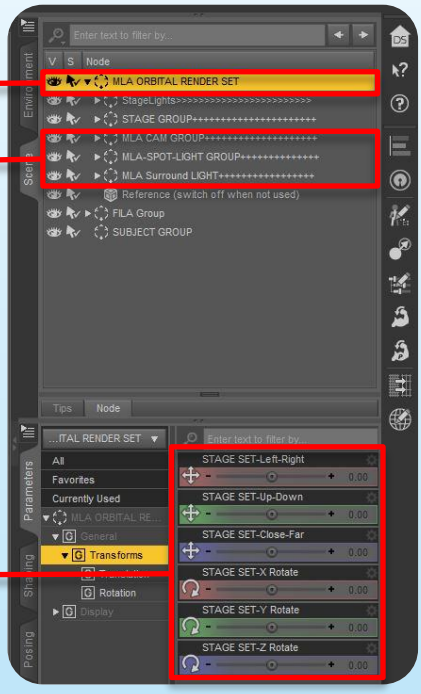
ORS Controls

Camera Group controls (moves the entire Orbital Render System, except the subject)

Camera and light groups can be individually hidden, duplicated, customized, deleted and re-loaded.

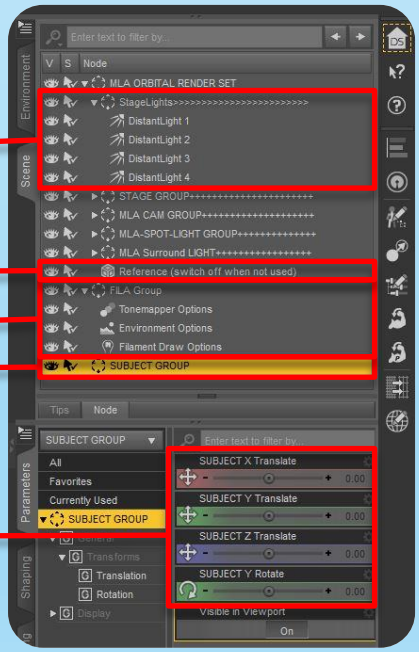


Stage lights are non-rendering utility lights that can be used when setting up a scene in the viewport set on texture shading.

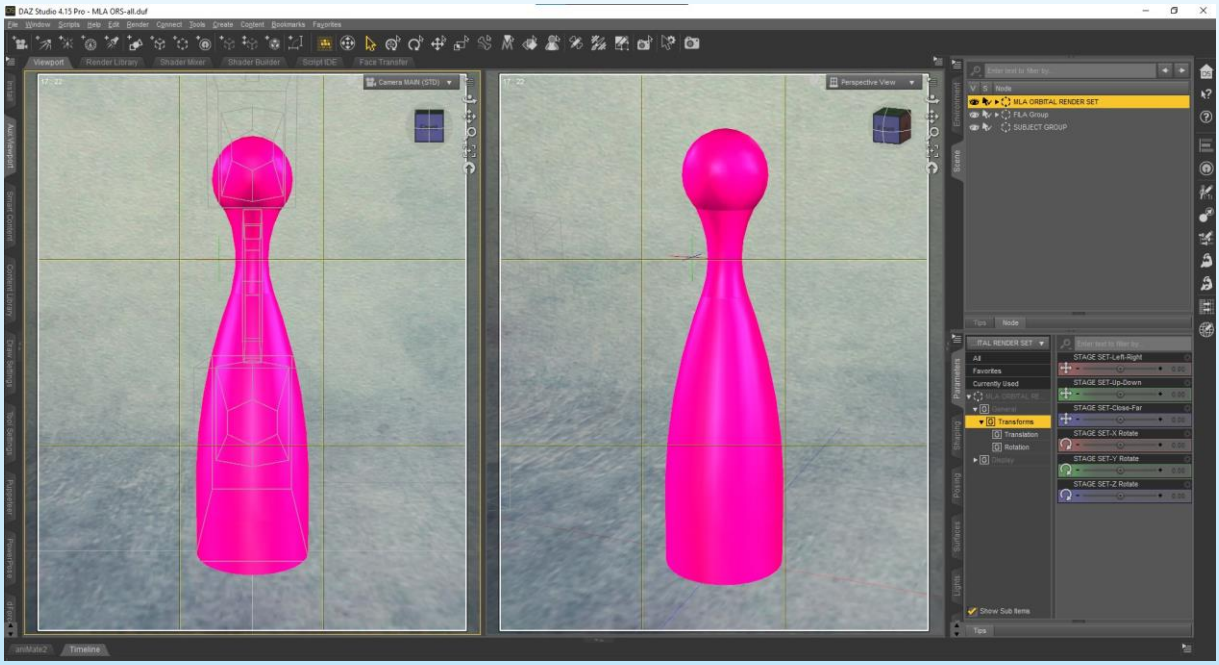
Reference prop (generic character size)

Group with Filament render controls

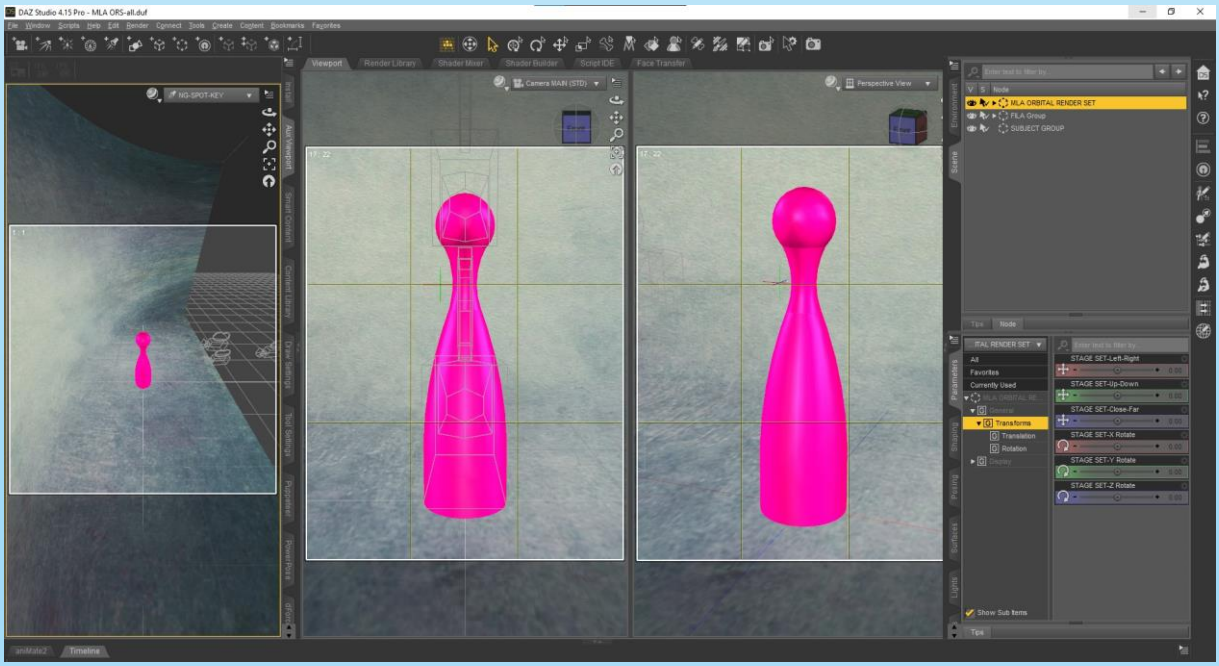
Drag any character or prop into this subject group for quick and easy moving and hiding in the scene.



Daz Studio Interface:



Daz Studio Layout example with the Orbital Render System loaded

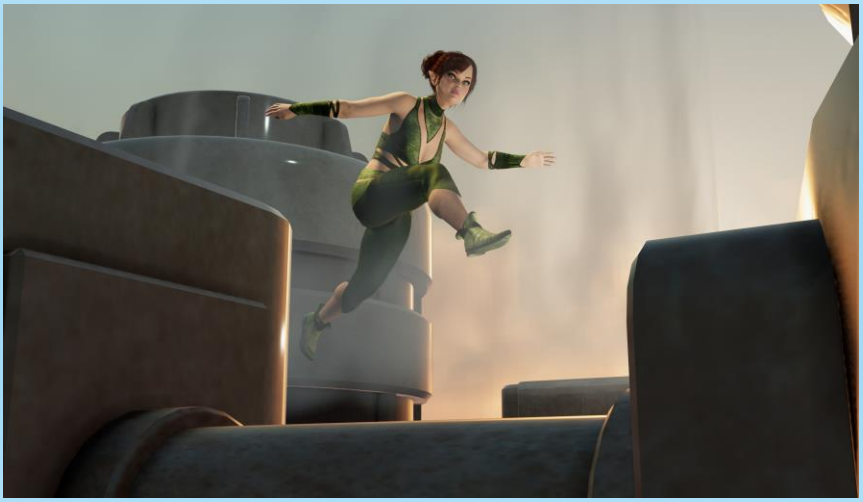


Use additional Aux viewport to check the lighting focus in real-time

DAZ Studio Layout

The Orbital Render System keeps the focus on your subject. Use multiple viewports to see the scene adjustments in real time or to preview your render in Filament and Iray at the same time.

Move cameras and lights in predictable and logical ways around your subject. Fine adjust light reflections and shadow directions with ease…



ORS Quick Start:

1) Load the MLA Orbital Render System into your scene…

2) Use the reference prop to align the character after you applied the pose…

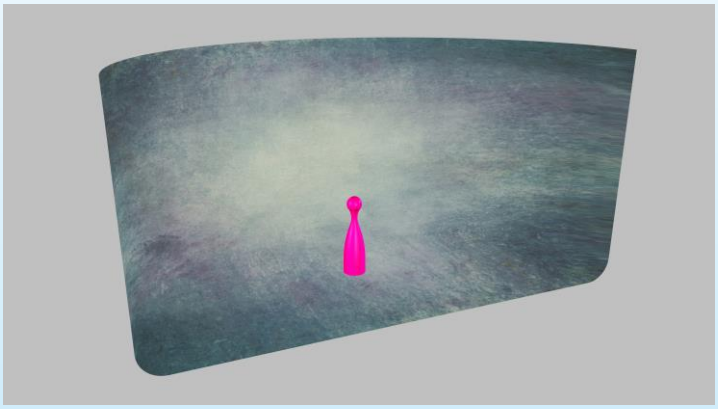
3) Hide the reference prop and adjust the centralized cameras and lights around the character as needed…

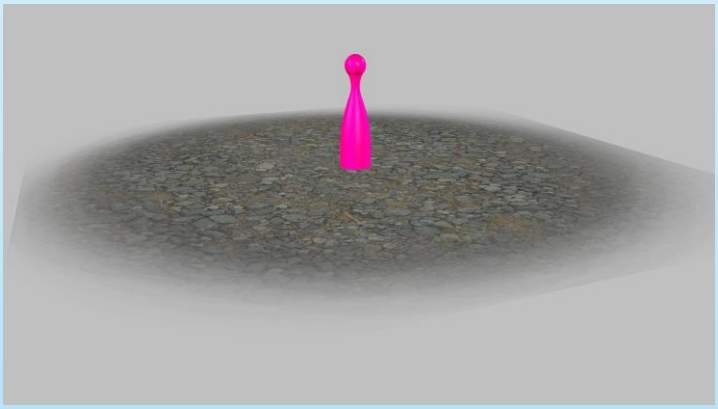
4) Start to render, using one of the included render options!

Or simply load one of the included MLA Orbital Render scenes and then your character. Drag props and characters into the included Subject Groups to make moving (and hiding) them easier.

Stage Group:

Panoramic Infinity Stage: This prop can be used to create a background and floor space at the same time, using one texture set. Most of the sets have additional height maps (normal maps) for the entire stage, some only for the base section.





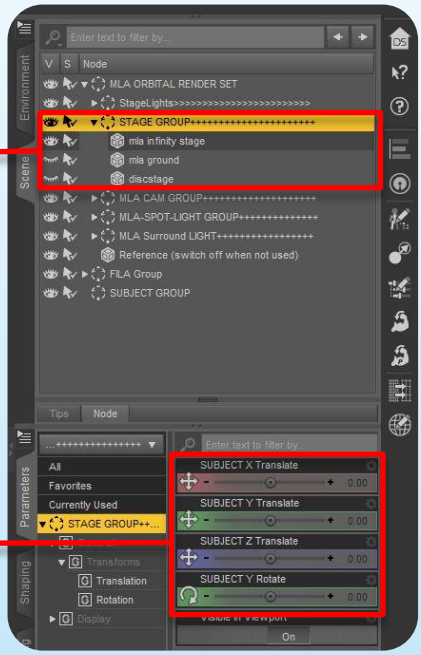
Fading Ground: There are many applications for this prop. Use it as a shadow catching surface together with an HDR environment or with a backdrop. I also can be re-sized and applied in addition to the Infinity stage to change the texture just for the floor area.

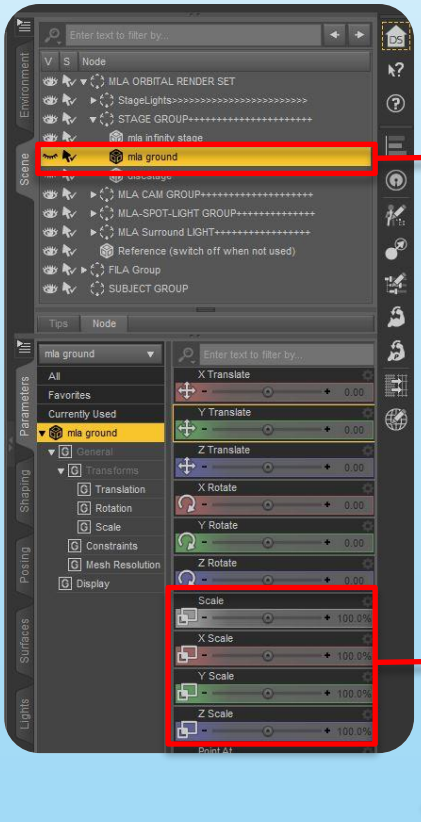
Discstage: Add this prop to elevate or present your character. It also can make a nice display base for 3-D printing your character. Just re-scale it to fit your needs.

Reference: This brightly colored prop represents basically the size of a human figure and is used to position characters, so they line up with the lighting and camera systems. It can be hidden after use.

Stage Controls

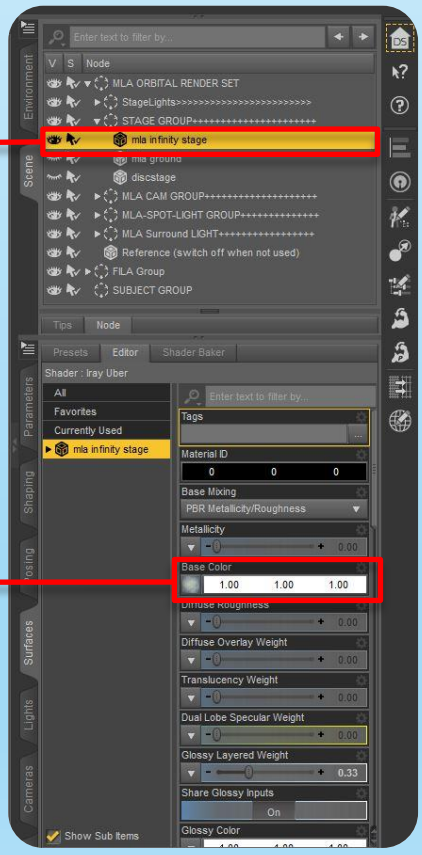
Stage Group controls (move or hides the entire group of stage props)





Rescale ground prop to fit your scene

Change texture manually or use included one-click textures (works also for ground and disc prop)



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Stage Applications:

Infinity Stage - adjusted for additional fading ground (moves Infinity stage slightly down to keep character at same height)

Infinity Stage - adjusted for additional discstage (moves Infinity stage down to keep character at same height)

Backdrop - with fading ground prop

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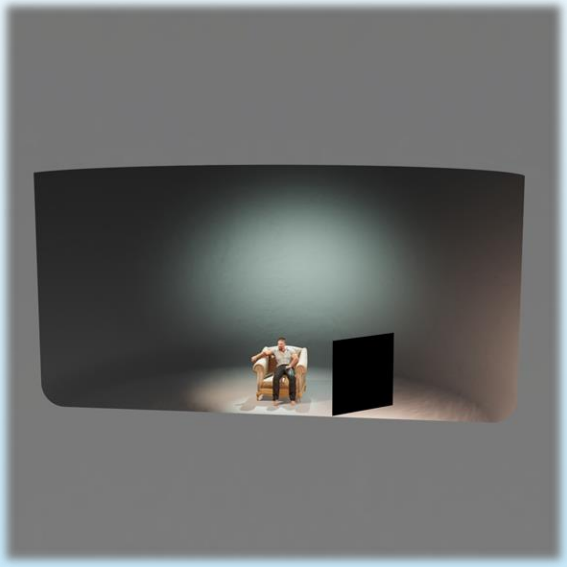
Stage Lighting Options:

Infinity stage prop used for base and background. Back light is reflected and lights up the area behind the character. In addition, the prop texture has the Iray only option to be self illuminating. (Note: Some stretching of the textures occurs at the front of the prop when applying pictures to it.)



For a floating effect, the fading ground prop is used with HDR background. Here the shadows ground the subject on the floor below.

The same lighting setup was used here with the discstage prop.

Stage Settings:

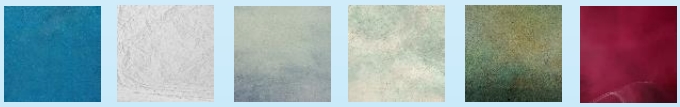
Infinity Stage Textures

Photo with ground option

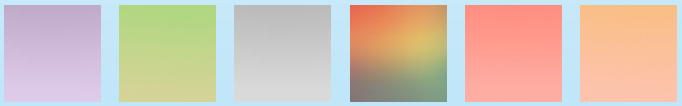
Abstract with ground option

Abstract

Patterned textures



Colors



Note: The ground option adds more realism to the ground area only!

Stage Texture Controls

Stage Position Controls

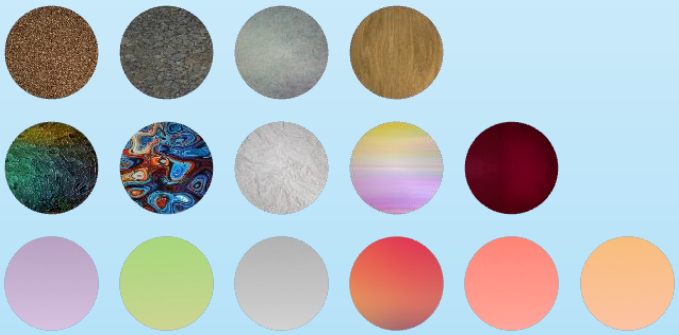
Surface Controls

Note: Select the infinity stage to activate these options!

Ground & Disc Settings:

Fading Ground Textures

Disc Stage Textures



Note: Select either the ground or the disc prop as noted to activate these options!

Ground only controls

Ground & Disc Stage controls

Normal Map Controls

Surface Controls

Camera Groups

Standard Camera (orbital, for most full body pictures)

Tele Camera (orbital, for isolating your subject from the background)

Wide angle Camera (orbital, for larger view of the area around your character)

Portrait Camera (orbital, for close-ups and portraits)

Free movement Camera (standard DAZ camera, does not move orbital, use for all other camera applications…)

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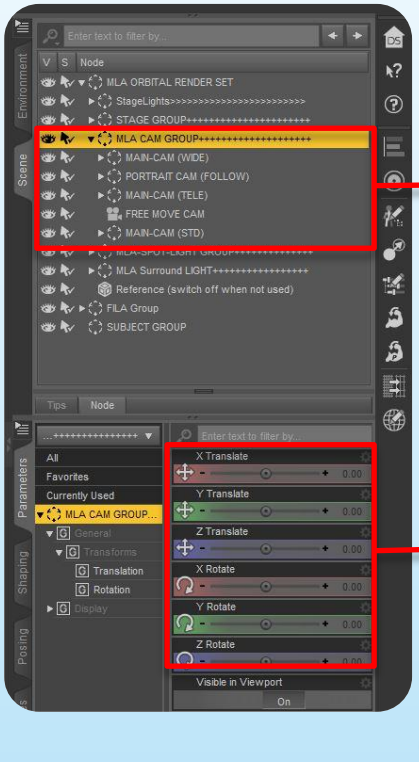
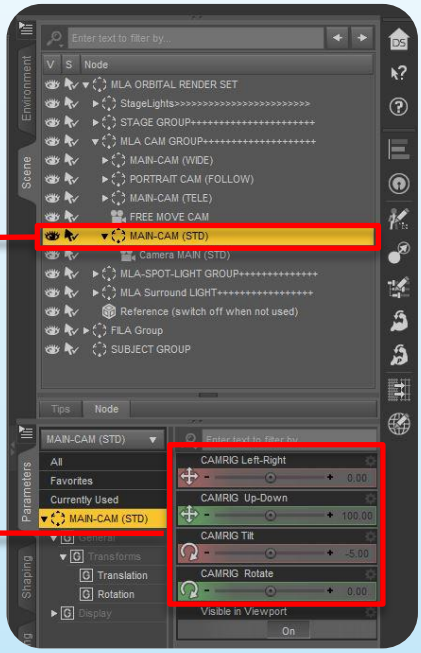
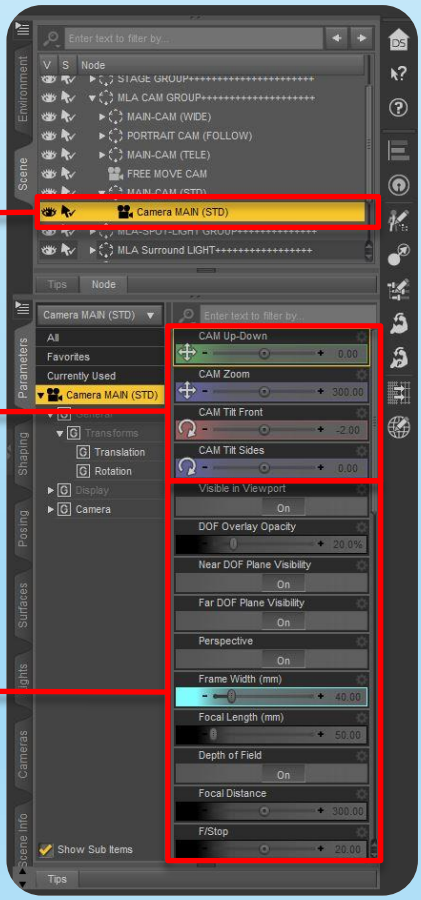
Main Cam Controls





Main cam rig controls (moves only the selected rig)

Camera Group controls (moves the entire group of cameras)

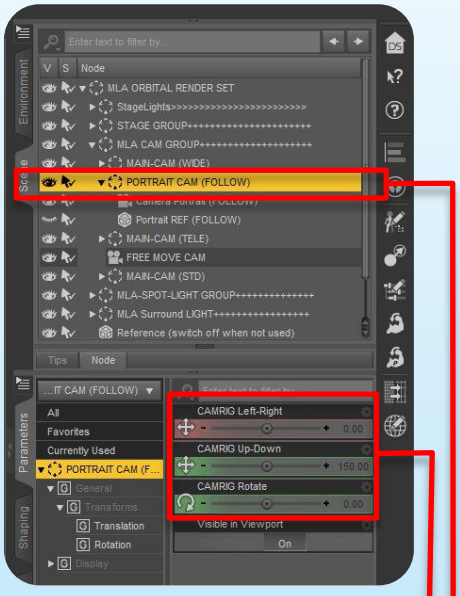


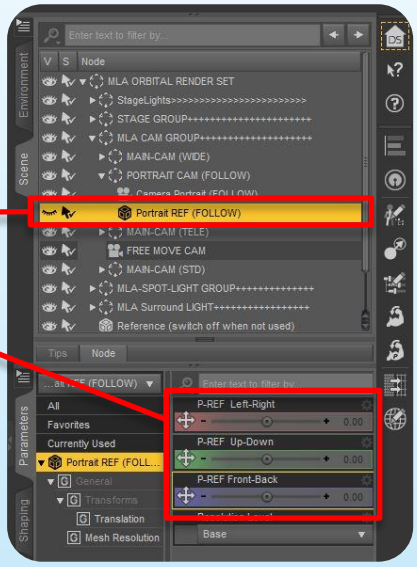
Camera controls (moves only the selected camera)

Camera settings (picture controls)

Note: Camera controls are the same for Standard, Tele and Wide-angle cams.

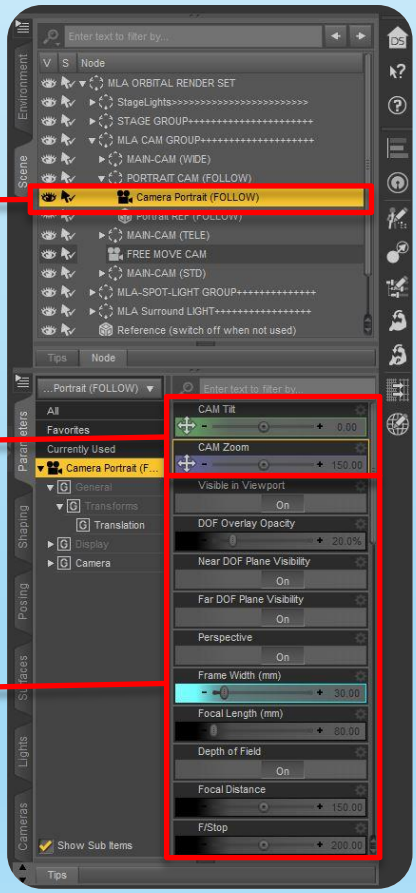
Portrait Cam Controls





Portrait cam reference controls (camera stays focused on reference)

Portrait cam rig controls (moves only the selected rig)



Camera controls (moves only the selected camera)

Camera settings (picture controls)

Camera Settings:

Depth-of-field settings

Camera frame settings

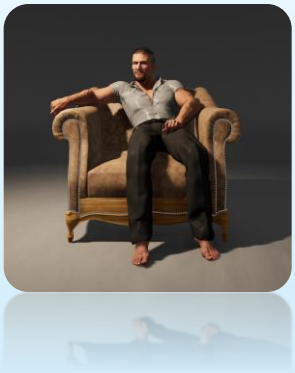
Camera tilt settings

Camera reset controls

Note: Select the camera in the group to activate these options!

Light Groups

Key Light (orbital spotlight, for primary lighting)



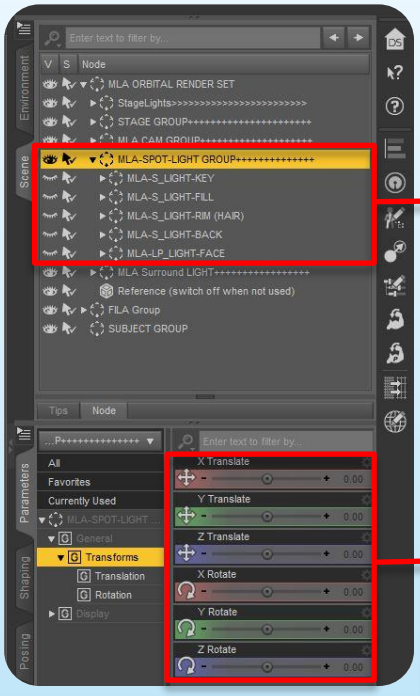
Fill Light (orbital spotlight, for filling-in dark areas)

Rim/Hair Light (orbital spotlight, for character back lighting)

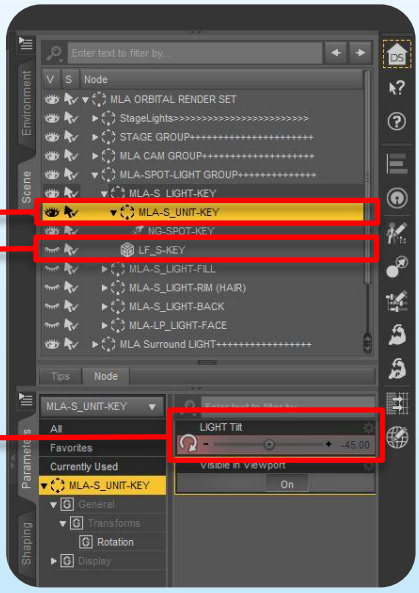
Face Light (orbital point and mesh light, for highlights in the face and eye reflections)

Back Light (orbital spotlight, use for lighting up the background behind the character in the scene)

Spot Light Controls

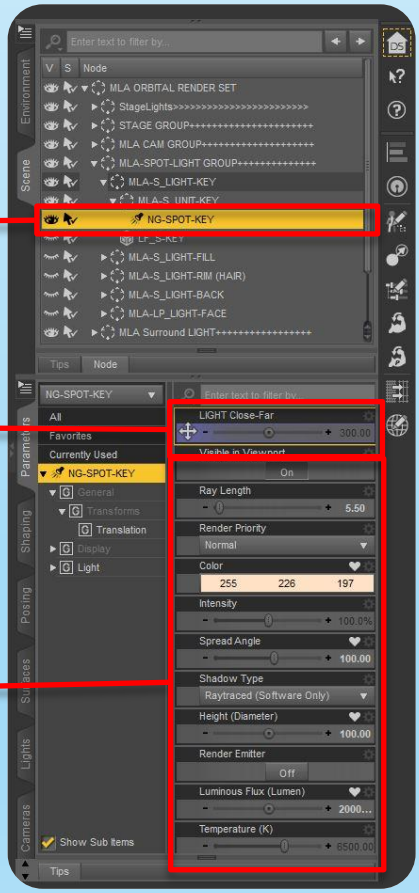


Key light reference prop (to locate the focal point)



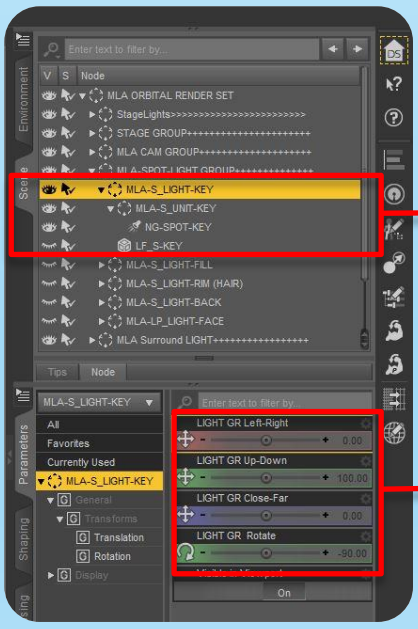
Key light rig tilt function

Spot Light Group controls (moves the entire group of spotlights)



Key light controls (moves only the selected light)

Key light settings

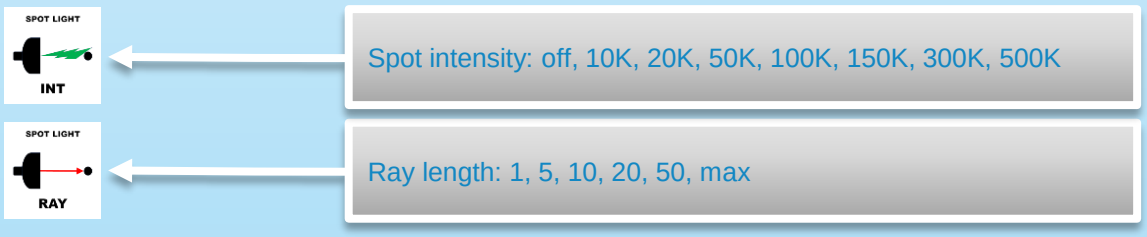


Key Light Group controls (moves only the key light group)

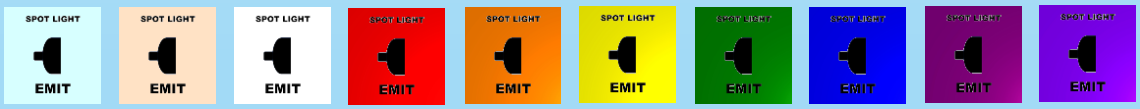
Spot Light Settings:

Spot Light Settings

Spot Light Intensity Controls

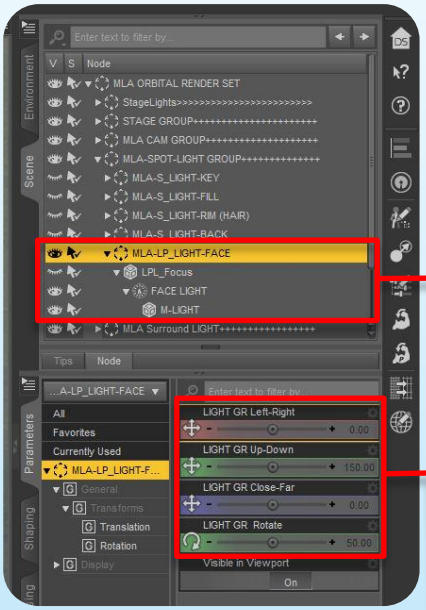


Spot Light Emitter Colors

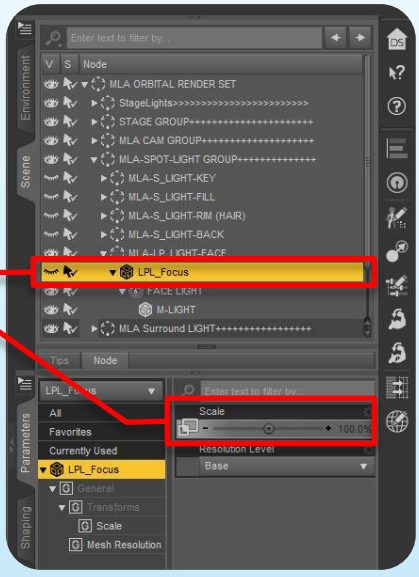


Note: Select the spotlight in the group to activate these options!

Face Light Controls-A



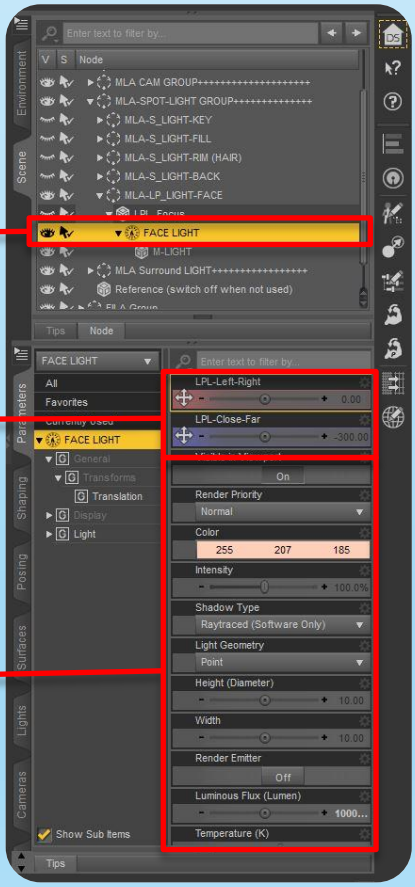
Reference prop with markings to align the specular lights with the characters head and eyes.



Face Light Group controls (moves the entire group of face lights)

Point light controls (moves only the selected point light)

Point light settings can be used to highlight the face in Iray and Filament renders.



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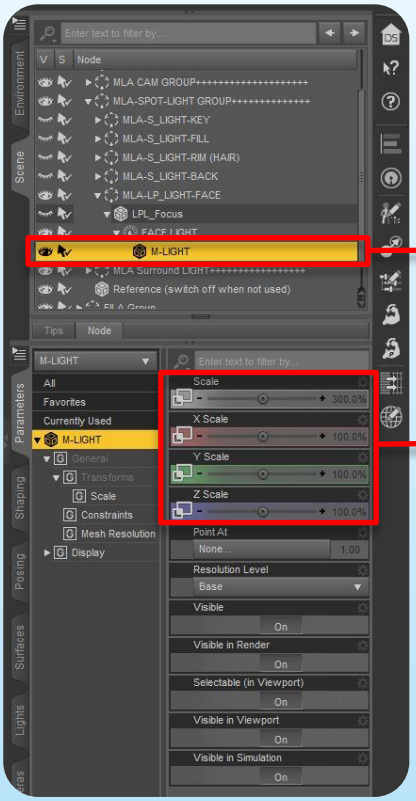
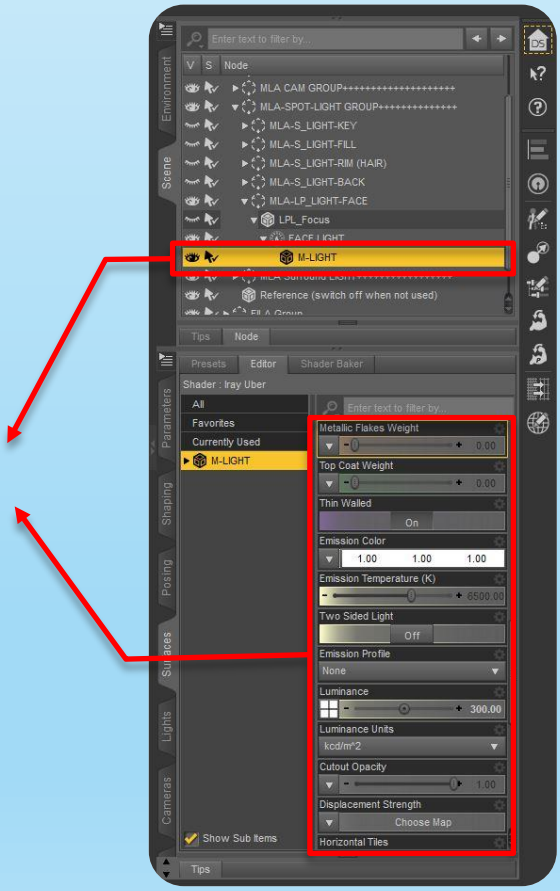
Face Light Controls-B



Specular light controls (scales the selected mesh light prop to have a larger or smaller specular reflection effect)



Mesh light settings can be used to highlight the face and add specular reflection in the eyes in Iray renders only. Several reflection patterns are available.

Mesh Light Settings:

Face Light Specular Emitters

Mesh Light Color Controls

Mesh Light Intensity Controls

IES Mesh Light Profiles

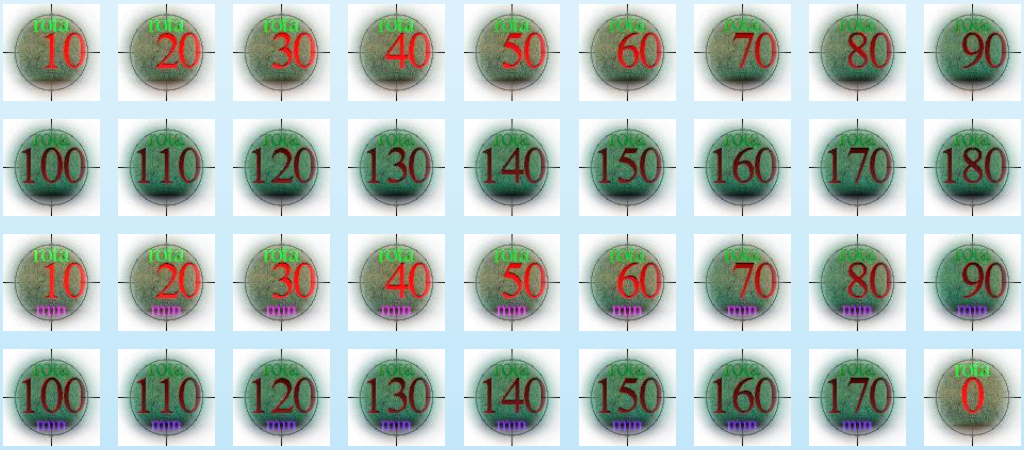
IES-off (softest), IES-1 (low), IES-2 (medium low), IES-3 (medium high), IES-4 (high), can be used on surround and face light

Surround Light group reset controls

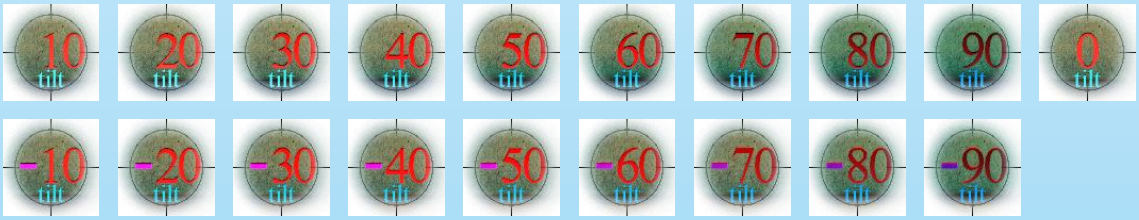
Note: Select the either the face light mesh prop or the mesh light sections of the surround light as indicated to activate these options!

Position Controls:

Camera/Light group rotate position controls



Camera/Light group tilt position controls



Camera group reset controls

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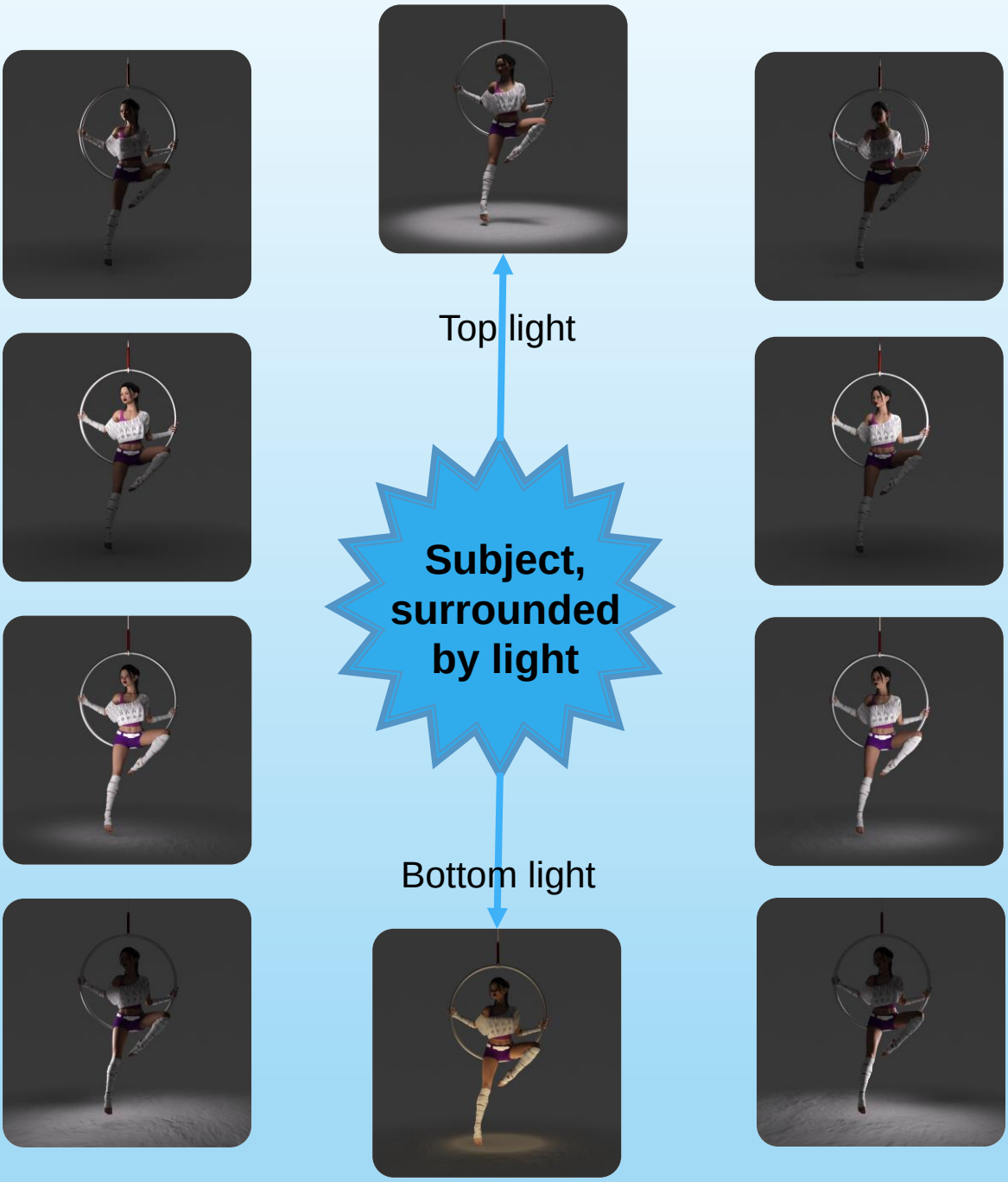
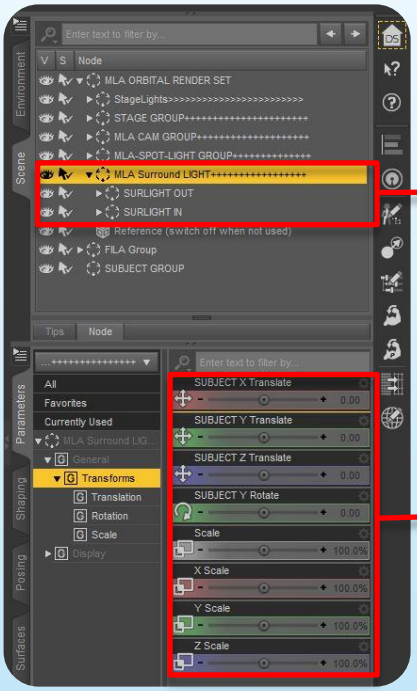
Iray Surround Light

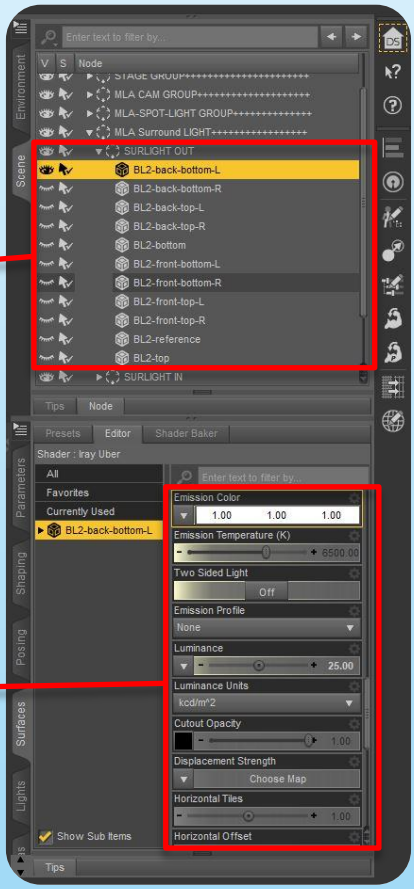


The Surround light is a fast way to add soft light to the character without having to adjust any light positions. Mesh light sections can send soft light to the subject and/or to the surrounding environment. The emitted light can be more focused by use of included IES light profiles.

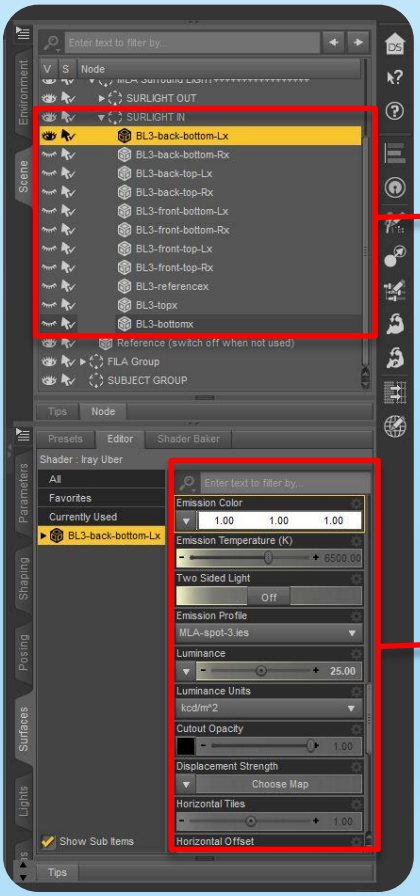
Surround Light Controls



Surround Light Group controls (moves and scales the both in- and out facing surround light groups)



These mesh light sections send soft light to the surrounding environment. No IES light profile used.



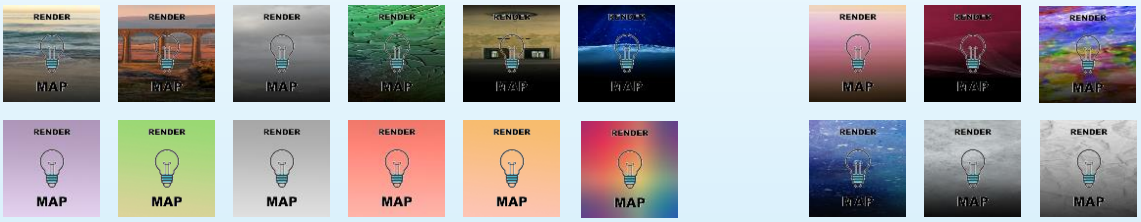
These mesh light sections send soft light to the subject. IES light profile to focus light used. (for fine adjustment, temporarily switch on the reference prop when scaling the surround group to fit the character)

Soft highlights created with the MLA surround light.

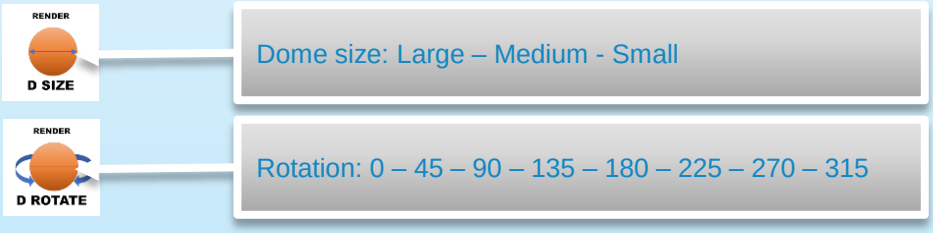
Soft, but dramatic highlights with the MLA surround light.

Render Settings:

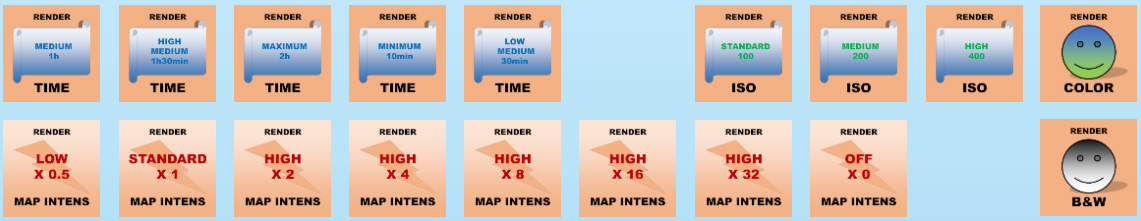
Environment maps



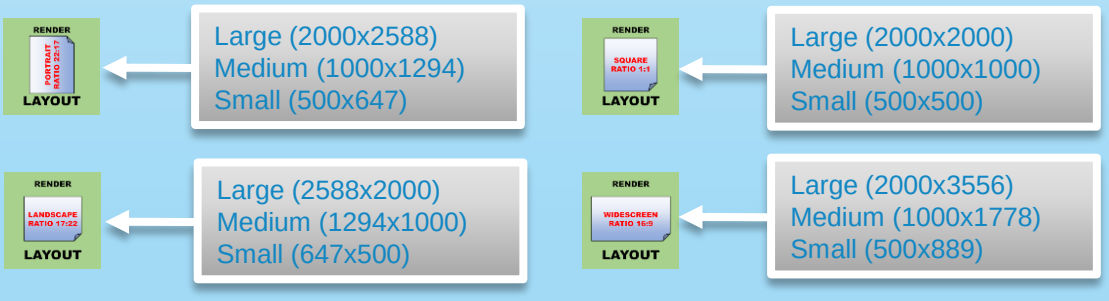
Render dome controls



Render settings, tone mapping



Render format and size



Render settings reset

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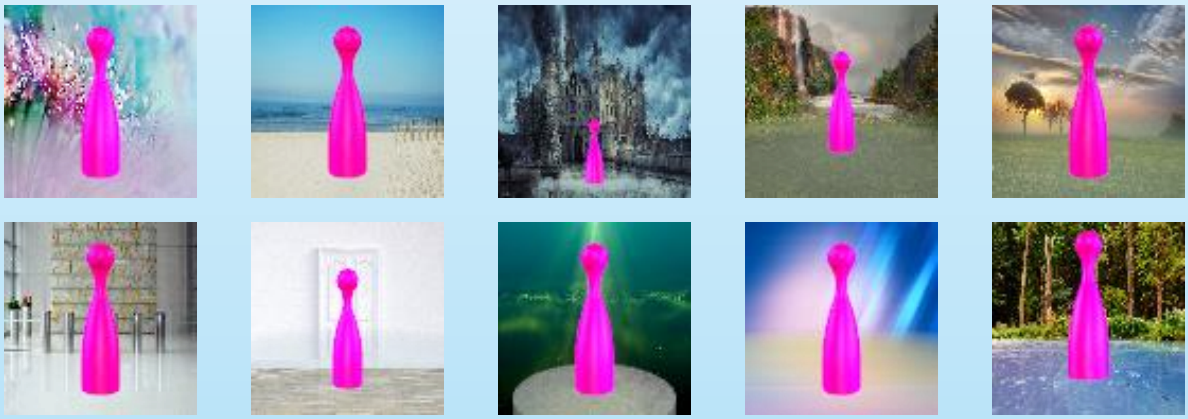
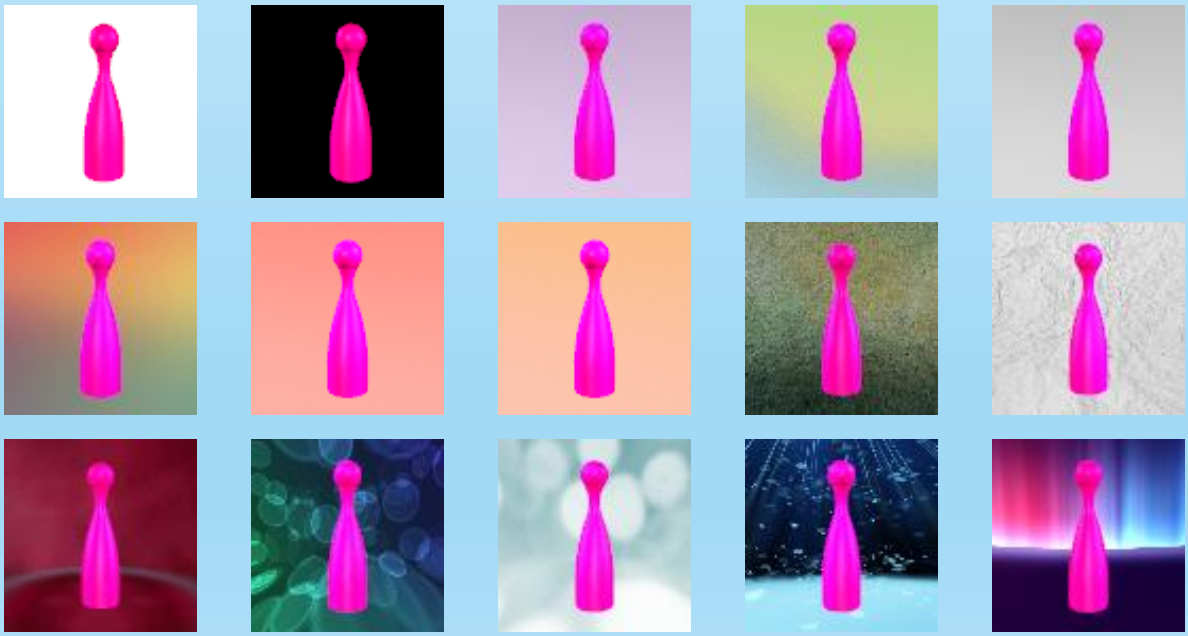
Pre-set Scenes:

Pre-set picture scenes with the ORS Infinity Stage

Pre-set picture scenes with Backdrops



Pre-set abstract scenes with the ORS Infinity Stage



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Iray render with the portrait camera group.

Iray render with the tele camera group and DOF setting.

The following are examples created with the MLA Orbital Render System (no post work)

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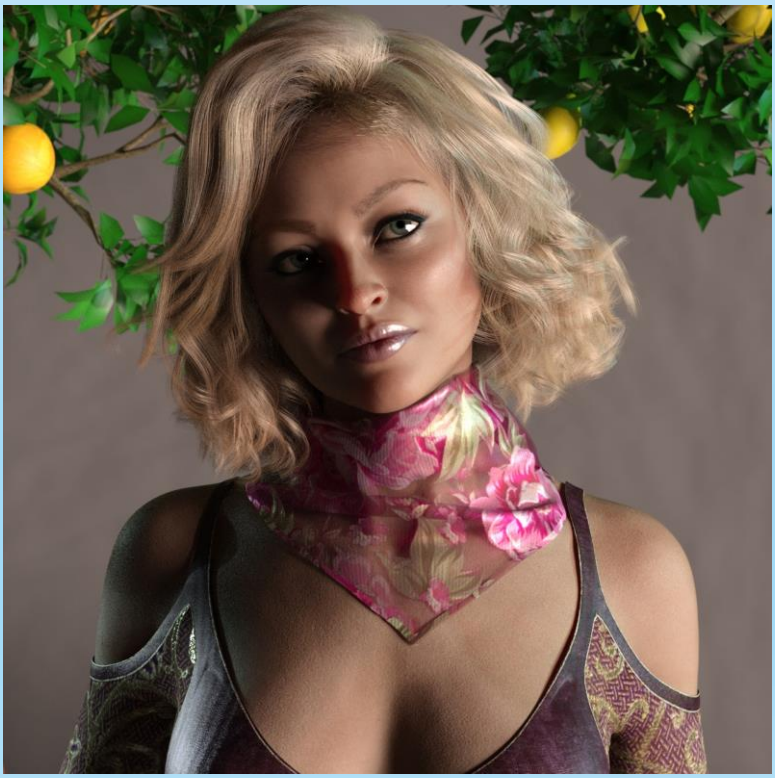

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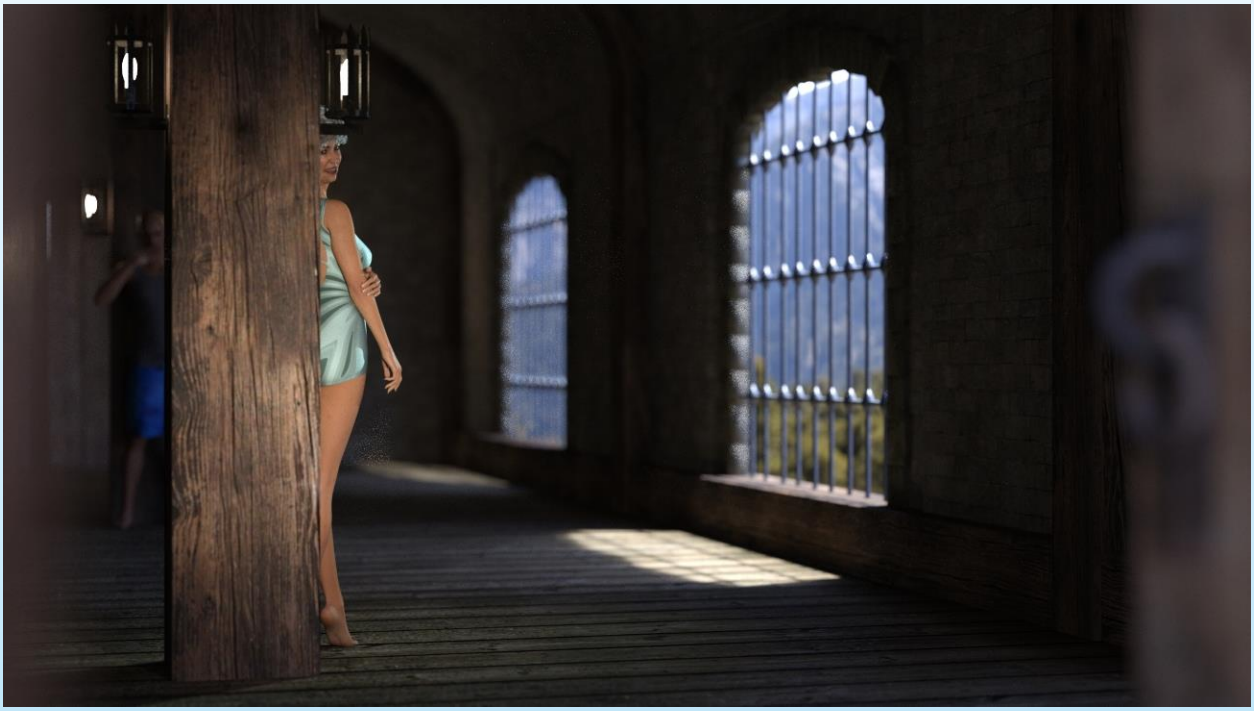

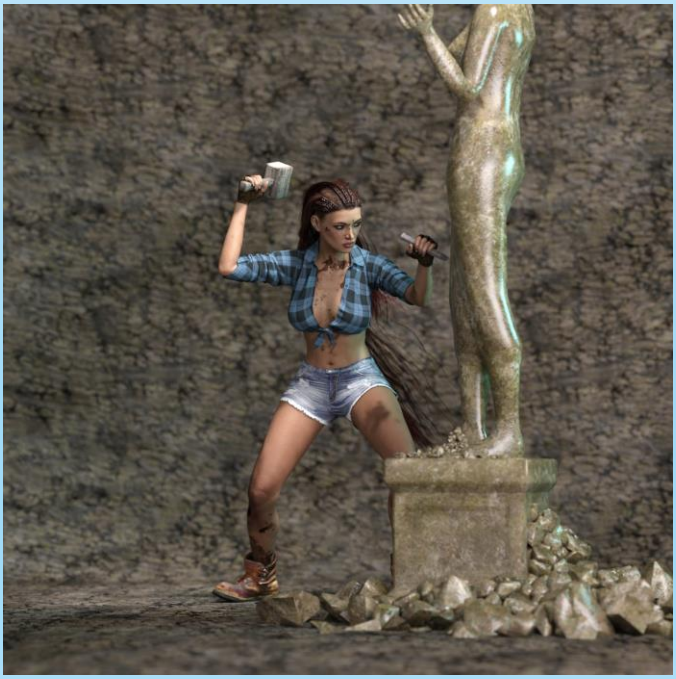

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