UNIVAH LITE HANDBOOK

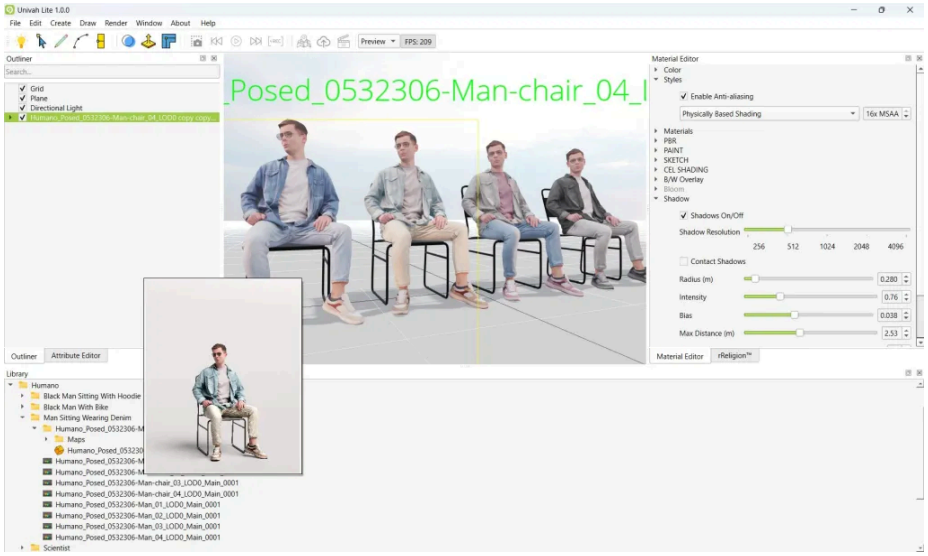
Official Guide for Students and Educators
(Version 1.0.0)

Learn Univah Lite: Step-by-Step Motion Graphics, VFX, and 3D Animation Tutorials with Reference Guide

THE STEPHANIE MICHAELS SOFTWARE COMPANY

Univah Lite™ — Complete Installation & Windows PC Setup

11/27/2025 - first draft
11/29/2025 - updated
10/18/2026 - updated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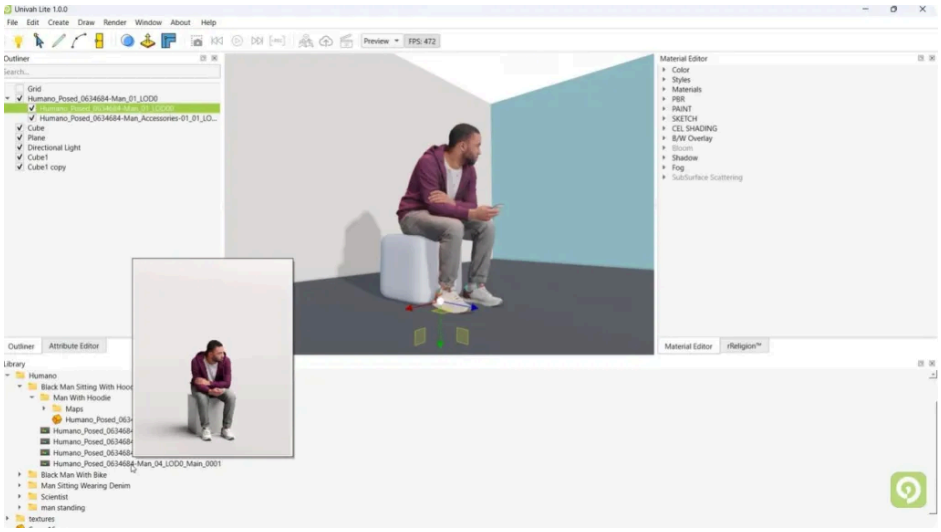
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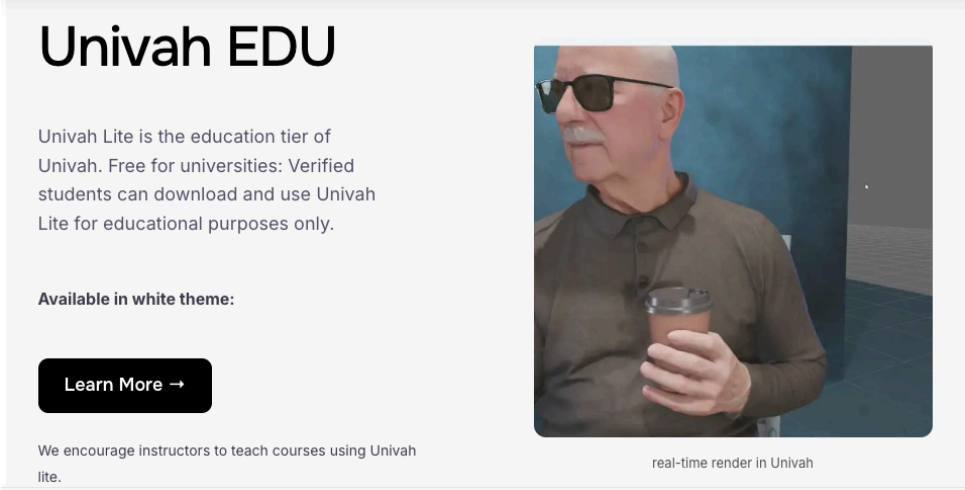
Black Man Sitting With Hood
Man With Hoodie
Maps
Black Man With Bike
Man Sitting Wearing Denim
Scientist
man standing
textures

System Requirement

Minimum	Recommended
1050 Nvidia GTX 2Gig VRAM 8Gig RAM | 500G SSD Core i5 60fps refresh rate	4060 Nvidia RTX 8Gig VRAM 32Gig RAM | 1T SSD Core i7 13th Gen 160+fps refresh rate

Downloading Univah Lite™



Getting Starting In Univah

Visit our website: https://smsoftwarecompany.com/univah-lite/ to get started.

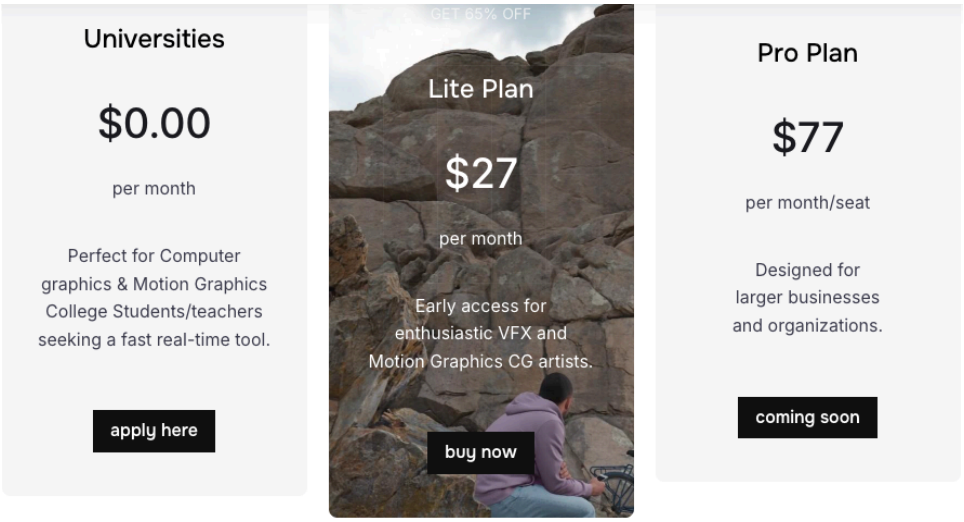
- **Students and University Faculty:** Univah Lite™ is **completely free** for educational use. Simply fill out the application form to verify your eligibility. Within 24 - 72 hours you will be contacted about your application.

- **Professional CG Artists:** If you're not currently enrolled in school, you can subscribe to Univah Lite™ for **just $27/month**, risk-free, and cancel anytime.

Start creating professional-quality motion graphics, VFX, and 3D animations immediately with Univah Lite™ — no upfront costs for students, and a flexible subscription for professionals

Set up your new pc for Univah: https://youtu.be/kikrlx4GvKw?si=MAe-_fQv-lGNYkgx

Check Your Email



Purchasing a license

Purchase Subscription (for Professional CG Artists):

- Click **"Buy Now"** to subscribe to the monthly Univah Lite™ plan.

Check Your Email:

- You will receive an **email immediately** containing:
  - Your **license serial key**
  - A **link to the download page**

Prepare to Download:

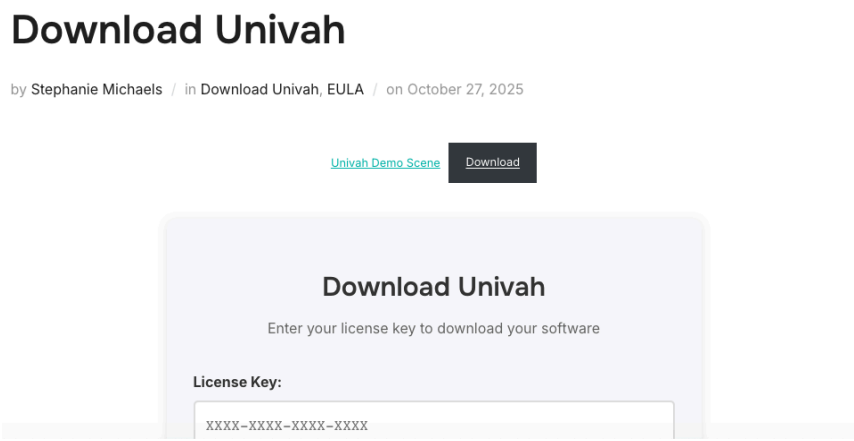
- Copy your **serial key** from the email.
- Click the **download link** provided in the email.

Start the Download:

- On the Univah Lite™ download page, **enter your serial key** when prompted.
- Your download will begin automatically.

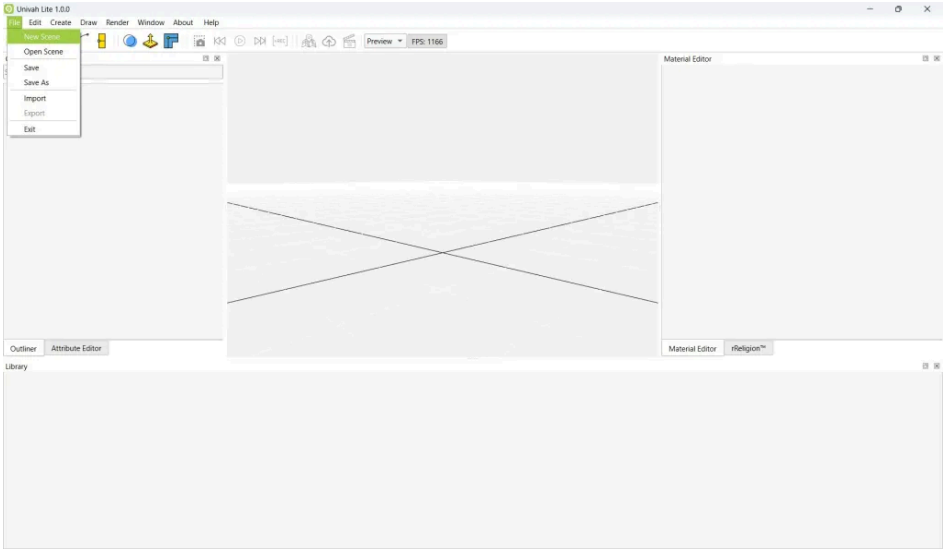
Install Univah Lite™:

- Once the download is complete, follow Installation Video Instructions here: https://youtu.be/I1qSKT2yPn4?si=5A2fy_OnlzYEs99O



- Download The Demo Scene
  After installation is complete, launch Univah!

Open Demo Scene



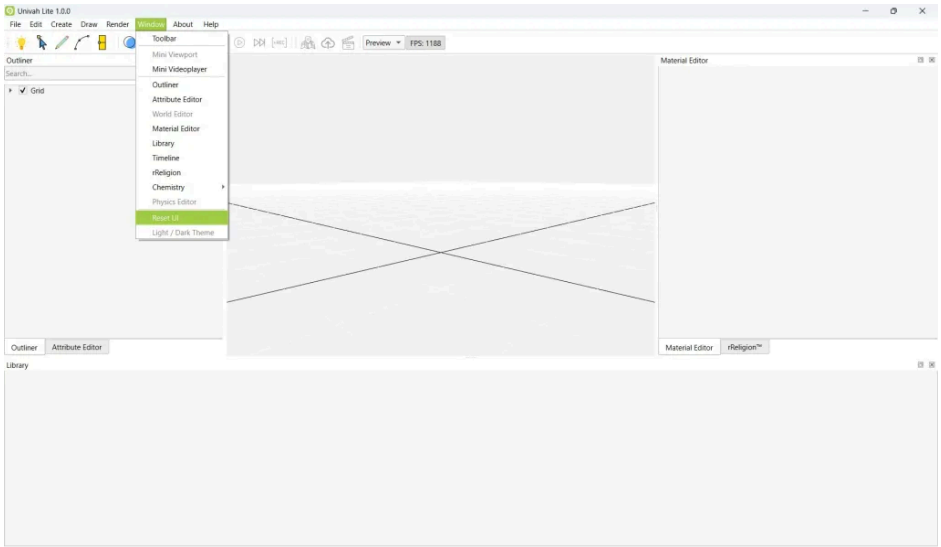
Creating a new Scene

To Create a new project! Click on the Univah icon to launch the film engine. When you see the user interface. Select File –> New Scene. This creates a new blank scene showing a grey grid in the middle of the viewport.

CTRL + G to show or hide the grid.
7 Key to show or hide the Menu Bar.
6 Key to show or hide the Tool Bar.

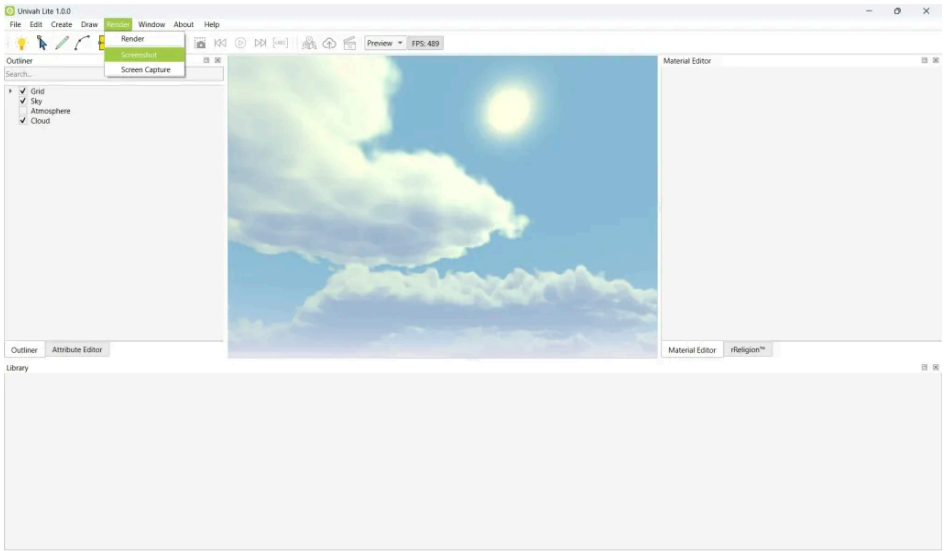
Alternatively, click open scene to load the demo scene after extracting or unzipping the compressed file. Univah Native Files have the .uvh extension.

TIP* - You must launch any saved scenes from within the software, simply clicking a saved scene's icon on the PC will launch the Univah Welcome Splash Screen but Univah itself will not launch.



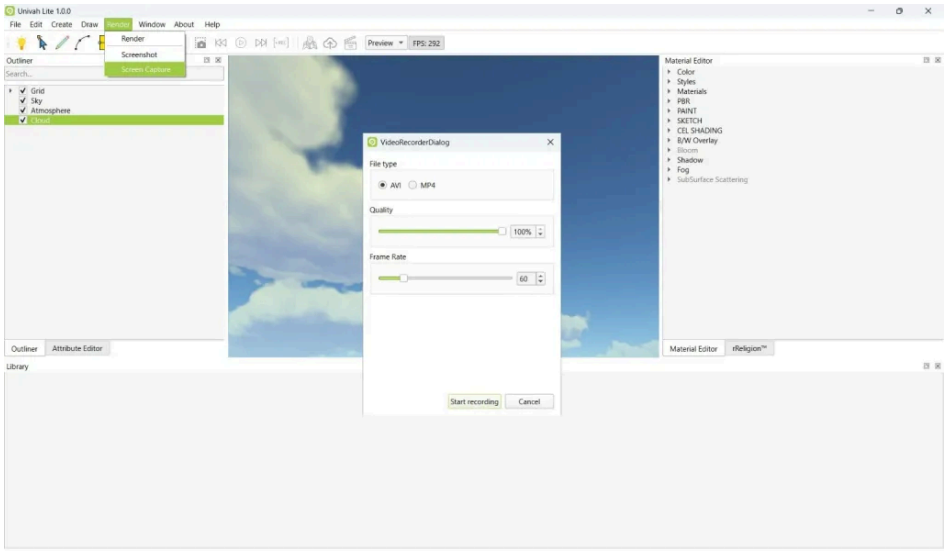
Reset UI / Save UI

To save your custom (UI) arrangement, drag and move each panel to a new docking location. To revert back to the default UI arrangement: GO TO –> Window –> Reset UI. Watch the video tutorial here:https://youtu.be/eCUlDlHd0PU?si=FjHTQKwQiYJl3eGm



Save A Screenshot

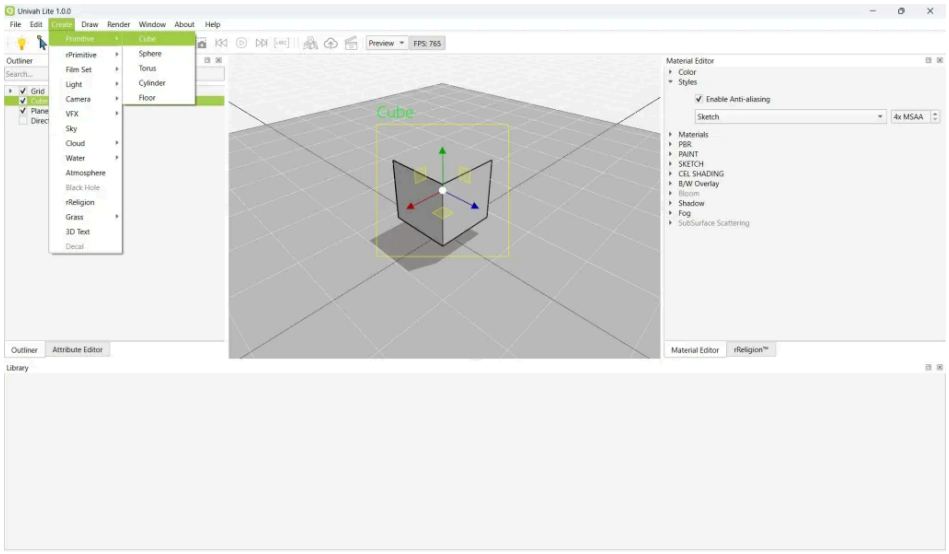
To take a screenshot of the viewport
GO TO –> Render –> Screenshot.
Choose where to save the screen and select PNG or JPEG then click save.



Record A Video

To record a video of the viewport
GO TO –> Render –> Screen Capture.
Select to record the viewport in AVI or MP4 format. Choose your Frame Rate and Quality.
Then click Start Recording.

*60FPS and Quality set to 100% for best results.



Creating an Object

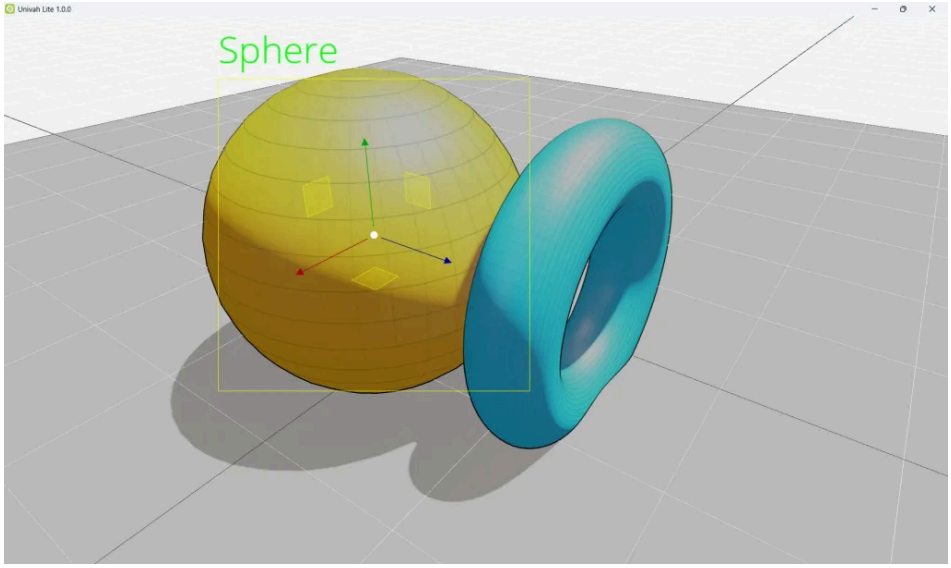
To add an object! Click on Create, Select Primitive and choose an object. Click on any object to add it to the scene.

Navigating in Univah

To navigate around your scene! Right Click the mouse to Lock in the camera. Move the Mouse up to look up, left, right and down. To free the mouse so you can select objects, Right click again in the viewport.

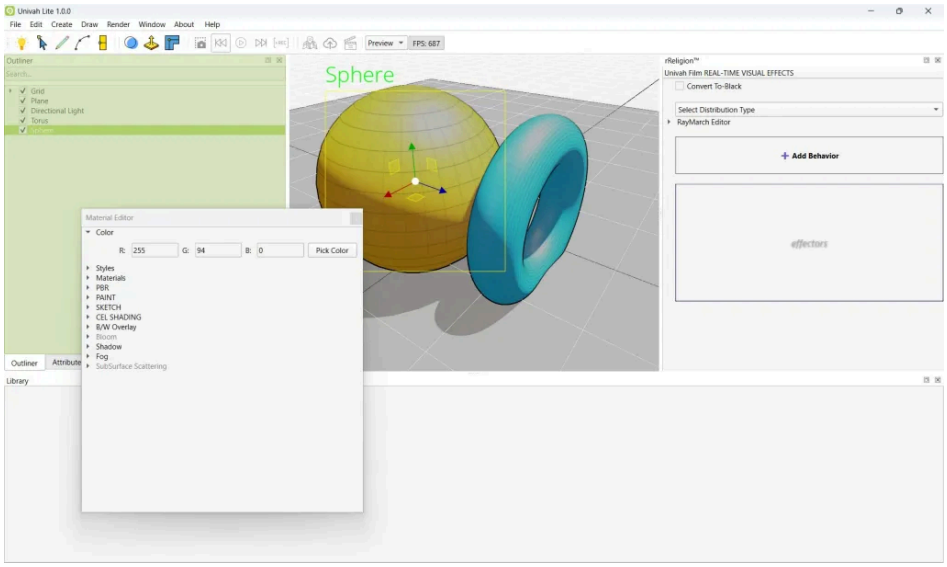
Use the **W key to Move forward.** Press the **A key to move left.** Press the **S key to move backward.** Press the **D key to move right.** Press the **E key to move up** in the world and the **Q key to move down** in the world. Use the **1, 2, 3, 4 and 5 Keys** to switch Camera Speeds.

THE HOME KEY – Press the H Key on the keyboard to quickly reset the camera back to the origin of the 3D scene. Video Tutorial: https://youtu.be/_Tn2kuinK_A?si=giziHiWkxfj6fAOd



The UI (show/hide)

To hide the UI and work in Full Screen! Press the ESC key. Now the UI Editor will be hidden. To bring back the UI Editor, press the ESC key again.

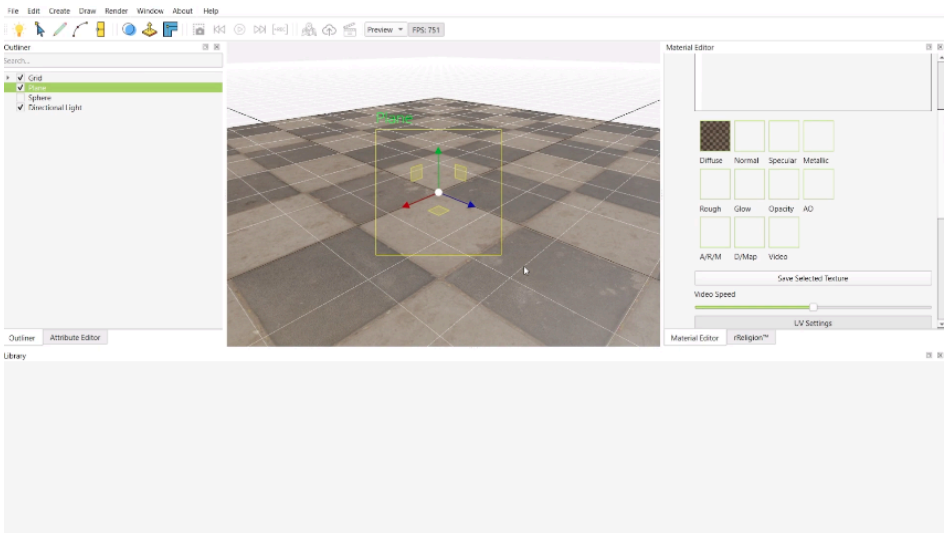


The UI (dock/undock)

To rearrange windows in Univah! Click and drag on the window to place it anywhere within or without the main window. In Univah, each window can be dragged outside of the main window.

To close each window individually, click on the small X button located on the top right corner of each window.

Applying Textures

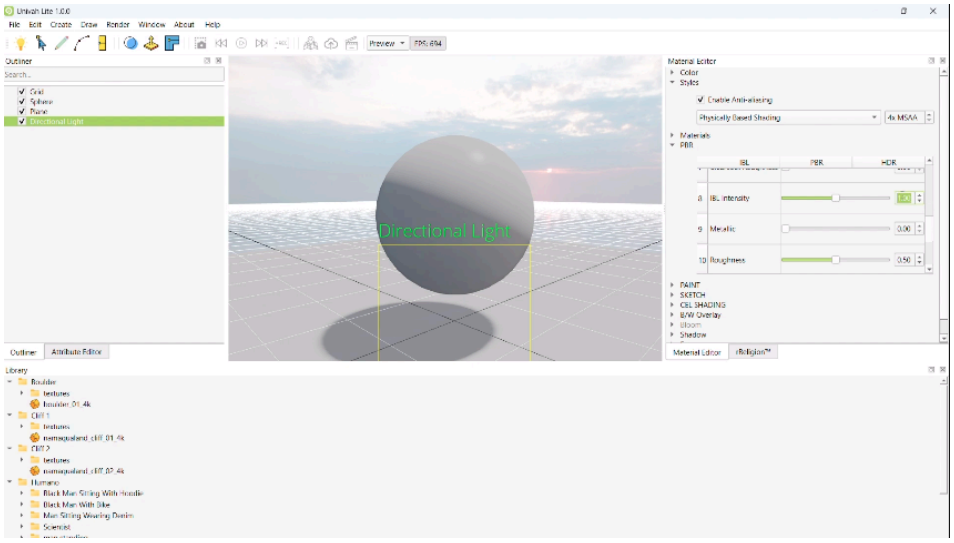


Materials & Texturing
Univah comes with a complete, industry-standard **Bidirectional Subsurface Scattering (BSSRDF) PBR material system**, allowing you to achieve cinematic, physically-accurate shading in real time.

To apply a texture:

1. Open the **Material Editor**.
2. Expand the **Materials** section.
3. Select your object (either in the Outliner or by clicking it directly in the viewport).
4. In the material panel, locate the **Diffuse Texture** slot.
    - **Double-click** the Diffuse Texture icon to upload a new texture, **or**
    - **Single-click** the icon and press the **Upload** button above it.

For a full walkthrough, watch the detailed texture-application tutorial:
https://youtu.be/0u5Afm0pDs4?si=kbwB7qIplaphThdA



Intro To Physically Based Rendering (PBR)

Changing Rendering Styles
Univah allows you to seamlessly switch between **non-photorealistic** and **photorealistic** rendering modes with a single click. By default, Univah Lite starts in the **Sketch** rendering style.

To switch to **PBR (Physically Based Rendering)**:

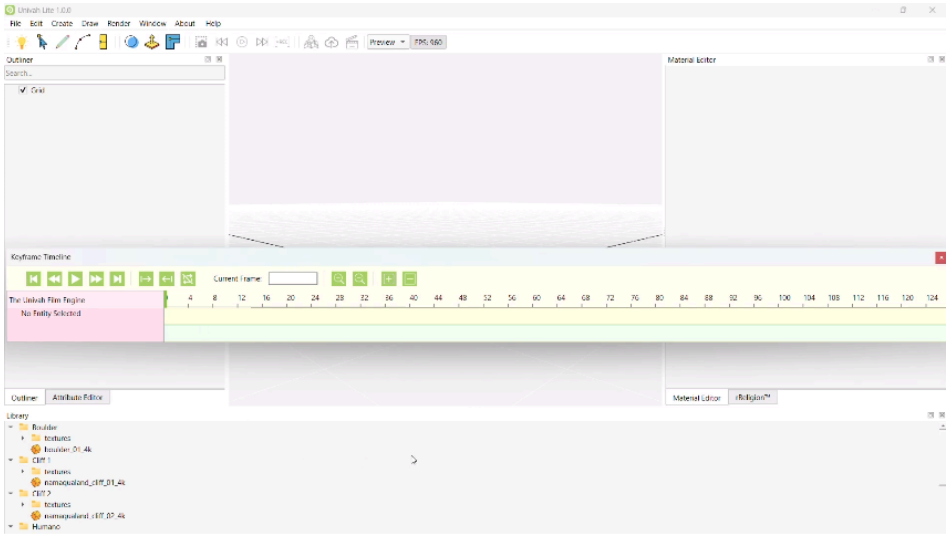
1. In the **Material Editor**.
2. Expand the **Styles** section.
3. From the **Styles** dropdown menu, select **PBR**.

Once enabled, an **environment map (IBL)** will automatically appear in the background to light your scene. If your objects appear completely black, simply add a light or increase the **IBL Intensity** for proper illumination.

Watch the full PBR rendering tutorial here:
https://youtu.be/l725D9Z4WH4?si=eknL8lQ6GgbQspm5

Complete Per Object Styling Tutorial:

The Univah Timeline



Animation Basics
Univah Lite comes with **Transform-Only Animation** enabled, allowing you to animate an object's **position, rotation, and scale** with ease.

To access the animation timeline:

1. From the main menu, click **Window**.

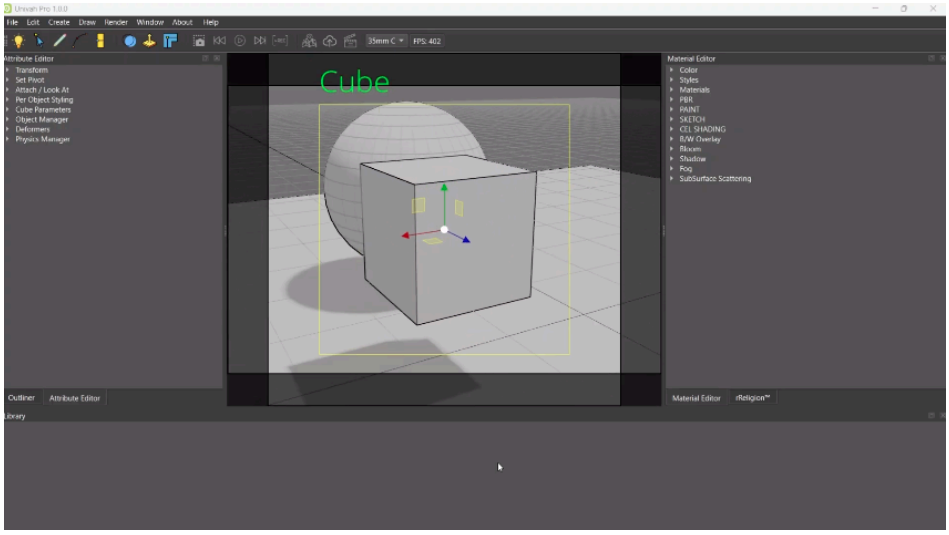
2. Select **Timeline**.

3. The Timeline panel will appear docked at the bottom of the interface, next to the Library.

This gives you full control over keyframes, playback, and transform animation for any selected object.

Watch the full Animation Timeline tutorial here:
https://www.youtube.com/@UnivahFilmEngine/playlists

Adding Cameras



Cameras in Univah Lite

Univah Lite includes two industry-standard, real-world production cameras:

- **35mm TV Projection Camera**
- **70mm TV Projection Camera**

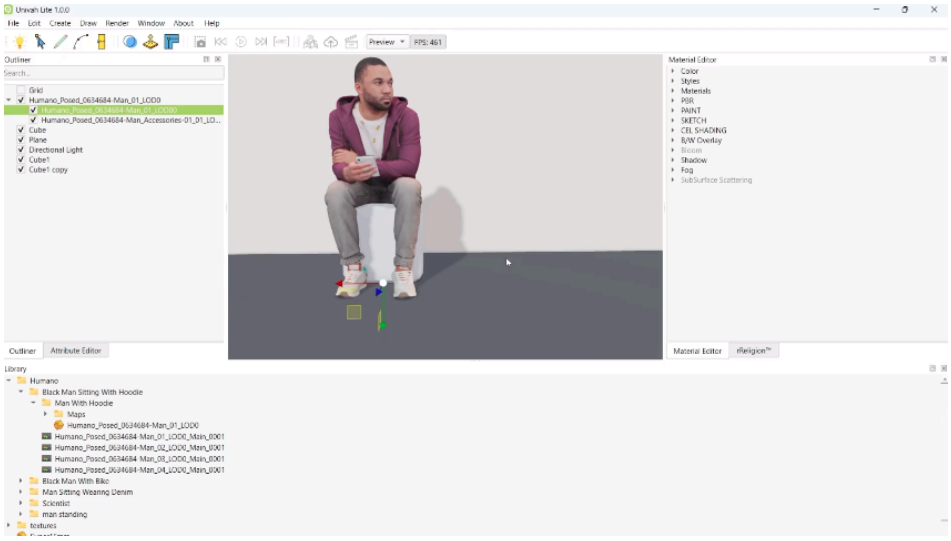
To add a camera:

1. In the main menu, click **Create**.
2. Select the camera type you want to add.

The new camera is placed **exactly at your current viewport camera position**, so it may not be immediately visible.
To see it in the scene, simply move backward using the **S** key to pull away from its position.

Once visible, cameras can be selected, positioned, and animated just like any other object in the scene.

Watch the full Camera Tutorial here:
https://www.youtube.com/@UnivahFilmEngine/playlists



Editing Primitives

Primitives in Univah Lite

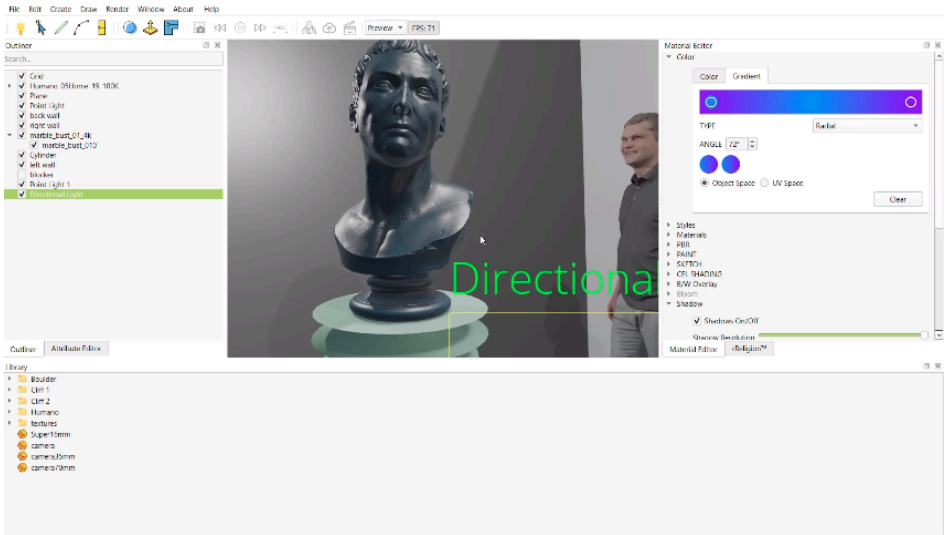
Univah Lite includes a set of essential 3D primitives you can use to build scenes, block out ideas, or test animations:

- **Cube**
- **Sphere**
- **Torus**
- **Cylinder**
- **Plane**

After adding a primitive to your scene, its adjustable parameters will appear in the **Attribute Editor**.
Every primitive in Univah Lite is **fully procedural**, allowing you to modify its parameters **in real time**—even after it has been animated and keyframed.

This gives you total flexibility and keeps your workflow fast and non-destructive.

Watch the full Primitives tutorial here:
https://youtu.be/5NBkh09nRgA?si=20G23bUIldqGbIU_



Adding Lights

Lighting in Univah Lite

Univah Lite includes three core real-time lights to help you illuminate your scene with accuracy and artistic control:

Directional Light(max # of lights allowed in lite 5)

Use this to simulate **realistic sunlight**.

Tip: Adjust the Sun Direction using the **Attribute Editor**.
Do **not** try to move a Directional Light using the gizmo—directional lights are **infinitely far away**, like the actual sun, so their position cannot be changed, only their direction.

Point Light (max # of lights allowed in lite 6)

Use this to mimic **bulbs, lamps, candles**, or any omnidirectional light source.
It emits light evenly in all directions from a single point.

Spot Light (max # of lights allowed in lite 3)

Use this when you need focused lighting, such as a **stage light**, **flashlight**, or **highlight on a character or object**.
The cone angle and falloff can be adjusted in the Attribute Editor. Watch the full Lighting Tutorial here: https://youtu.be/zPRT4HjLnVU?si=a0c6AThdnnWl_HkI

Univah Lite™ — Migration Guide for Maya MASH & Cinema 4D MoGraph Users

11/27/2025 - first draft

Introduction

If you're a Maya MASH or Cinema 4D MoGraph user, you're familiar with powerful procedural animation tools — but also with the complexity of node graphs, layered effectors, and fragmented falloffs. Univah Pro™ offers **the same power** but with a revolutionary, **node-free, artist-friendly** system. This guide will help you migrate your procedural workflows to Univah Lite™, so you can create faster, cleaner, and with live feedback in every step.

Note: Univah Lite comes with **five behaviors(out of 12)** available in Univah Pro to equivalent some of the MASH and MoGraph features.

1. Offset Effector

Univah rReligionVFX™	Maya MASH Equivalent	Cinema 4D MoGraph Equivalent	Notes
Applies staggered animation timing or spatial offsets across clones or parts	Time Offset, Delay Effector	Step Effector, Delay Effector	Univah's Offset replaces multiple MASH delay tools with one intuitive slider, no nodes needed.

2. Falloff Effector

Univah rReligionVFX™	Maya MASH Equivalent	Cinema 4D MoGraph Equivalent	Notes
Defines effect influence area with shapes and gradients	Fields (Sphere, Linear)	Fields (Field Effectors)	Univah's falloff is draggable and real-time adjustable without graph edits, replacing the layered Field system elegantly.

3. Transform Effector

Univah rReligionVFX™	Maya MASH Equivalent	Cinema 4D MoGraph Equivalent	Notes
Static or animated transforms all instances (translate, rotate, scale)	Transform Effector	Transform Effector	Functionally similar but Univah's UI is cleaner, enabling transforms without graph clutter.

4. Random Effector

Univah rReligionVFX™	Maya MASH Equivalent	Cinema 4D MoGraph Equivalent	Notes
Introduces procedural variation to cloned objects. Randomizes position, rotation, scale, and other attributes Fully **live-adjustable** in the viewport with **immediate visual feedback.**	Random node	Random Effector	Univah's Random Effector allows for precise control with fewer steps compared to MASH or MoGraph, while maintaining full procedural workflow.

5. rReligion Distribute

Univah rReligionVFX™	Maya MASH Equivalent	Cinema 4D MoGraph Equivalent	Notes
rReligion Distribute Procedural cloning on grids, surfaces, splines	MASH Distribute	Cloner Object	Univah offers equal cloning power, with easier live adjustments and fewer steps.

Summary:

Why Univah is Better for MASH & MoGraph Users

Aspect	Maya MASH / Cinema 4D MoGraph	Univah
Setup Complexity	Node graphs, layered effectors, field blending	Single behavior stacks with no nodes or graphs
Real-Time Feedback	Often lags or requires caching	Instant, live viewport feedback No caching. No Baking.
Ease of Use	Steep learning curve for beginners	Intuitive parameterized UI with instant high fidelity visual feedback
Customization	Powerful but technical and fragmented	Powerful, composable, artist-friendly
Interactivity	Needs scripting for triggers/events	Built-in triggers with simple UI
Performance	Can require baking	Highly optimized for live editing

Familiar Power, Fresh Simplicity

Maya & Cinema4D CG artists already know the incredible creative possibilities of procedural motion graphics. Univah respects those industry standards and workflows — but it removes the clutter, complexity, and technical overhead.

With Univah:

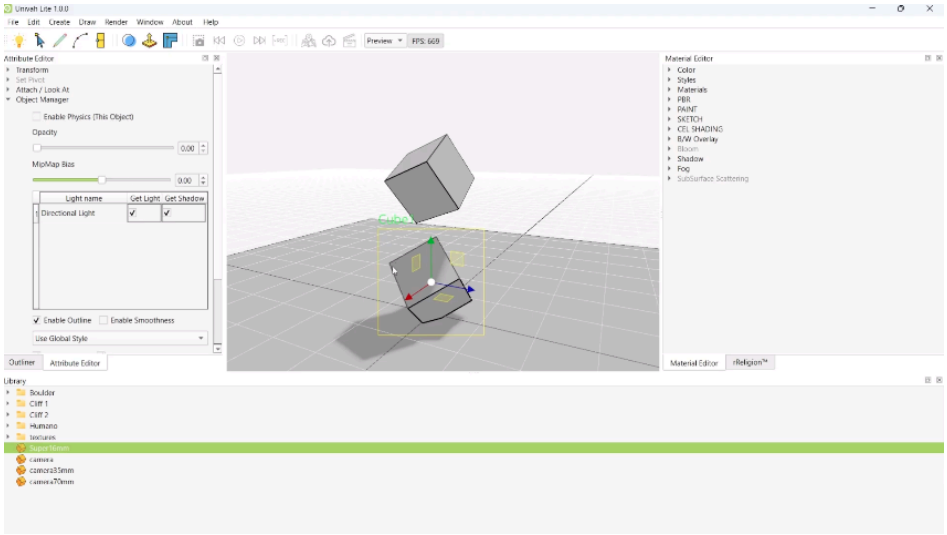
- You won't see intimidating node graphs, nested layers, or confusing field blends.
- Instead, you get intuitive behaviors you apply directly to objects, with real-time feedback right in the viewport.
- The core concepts — clones, offsets, noise, falloffs, triggers — are the same, just streamlined and artist-first.
- This means your existing skills transfer immediately, but you work cleaner, faster, and more fluidly.

Univah is built so you can focus on creating — not wrestling with the tool.

The Univah Film Engine comes with a complete list of 12 core power effectors. For professional and classroom use, refer to the **complete Univah Pro™ Manual** for all 12 rReligionVFX™ effectors and advanced workflows.

Resources: Video Tutorial Intro to rReligionVFX
https://youtu.be/ZFI_4wcfKHg?si=cm--_cG0mL4WP5HC

Practice Falloff Effector and Object Distribution
https://youtu.be/47eRb4tkawA?si=Hjpj0jZNMyth1yUR



Quick Physics

Quick Physics in Univah Lite

Univah Lite includes **Quick Physics**, a powerful and highly optimized custom physics system designed to work seamlessly with **rReligionVFX distributions**.

Every object in Univah Lite has **physics enabled by default** in the Object Manager.

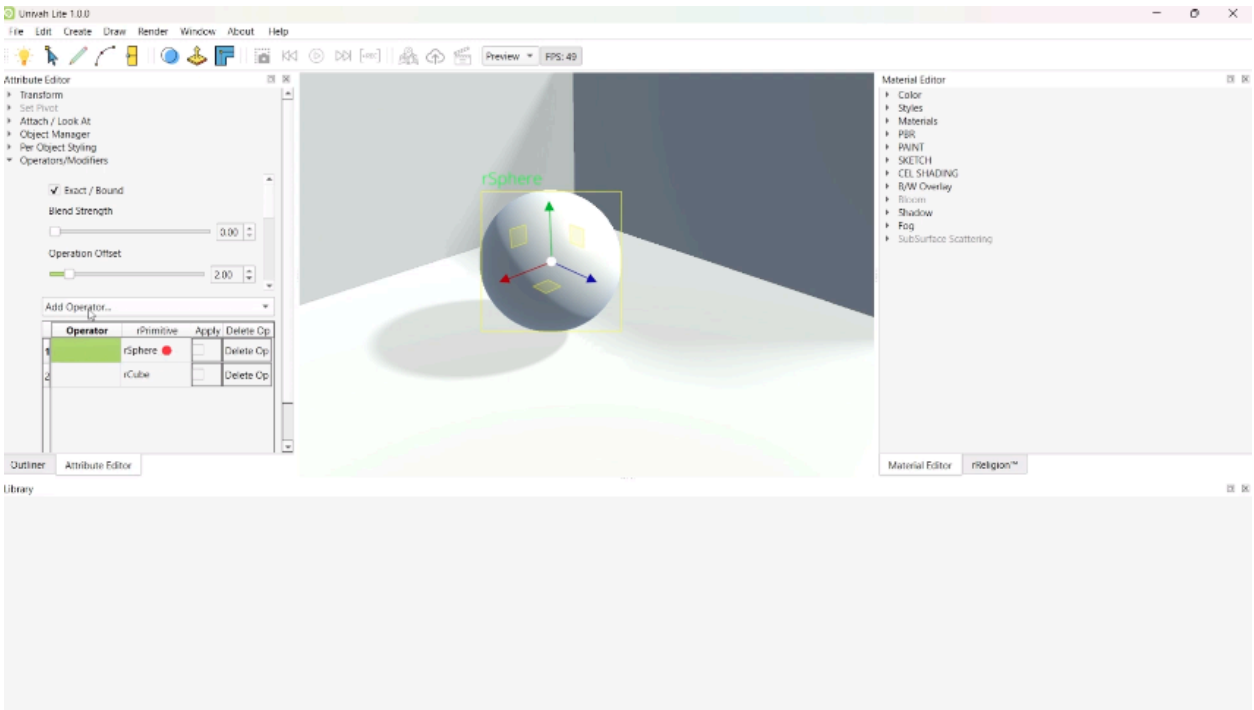
To enable **Global Physics**:

1. Open the **Attribute Editor**.
2. Expand the **Physics** section.
3. Toggle Global Physics to activate physics interactions across your scene.

This system allows objects to react naturally, whether they are cloned, animated, or part of procedural distributions, without any complex setup.

Watch the full Quick Physics tutorial here:
https://youtu.be/L7pxCSqZkBM?si=Db--sI3OliNkTe1M

rReligionVFX™ Signed Distance Field



Signed Distance Primitive (SDP) Explained

Primitives in Univah

Univah offers **two types of primitives**:

1. **Regular Polygon Mesh Primitives**
    - Accessible via **Create** → **Primitive** in the main menu.
    - These include standard shapes like **Cube, Sphere, Torus, Cylinder, and Plane**.
    - They are traditional polygon meshes and behave like standard 3D geometry.
2. **Procedural rReligion Primitives**

    - Accessible via **Create → rPrimitive**.
    - The lowercase **"r"** stands for **rReligion**, indicating that these are **rReligionVFX Primitives**, which are **Signed Distance Field (SDF) Primitives**.
    - Unlike regular meshes, SDF primitives are **defined mathematically**, allowing for procedural operations such as smooth blending, Boolean combinations, and highly flexible real-time deformation.

A **signed distance primitive** is basically a **mathematical representation of a shape** in 3D space that tells you **how far a point is from the surface of that shape**.

- **"Signed"** means the distance has a direction:
    - **Positive distance** → the point is outside the shape.
    - **Negative distance** → the point is inside the shape.
    - **Zero** → the point is exactly on the surface of the shape.
- **"Primitive"** means it's a basic building block shape, like a sphere, cube, cylinder, or torus.

So, a signed distance primitive is just a simple shape where, for any point in 3D space, you can quickly calculate **how far it is from the shape** and whether it's inside or outside.

Why It's Useful

Signed distance primitives are used in **procedural modeling, ray marching, and SDF (Signed Distance Field) rendering**. For example:

- You can combine multiple SDPs to create **complex shapes** (using union, intersection, subtraction).
- Because it's based on a **distance function**, it's very fast to compute in real time.
- It allows for **smooth blending** between shapes, which is hard with traditional polygon meshes.

SDF Operators in Univah Lite

Univah Lite comes with **three operators**:

- **Sm Union** (Smooth Union)
- **Subtraction**
- **Intersection**

These operators allow you to combine or modify **rReligion Primitives (SDF Primitives)** in real time.

💡 **Equivalent in Other DCCs:**

- **Houdini:** These behave like **VDB Boolean nodes** or **SDF SOPs** in Houdini, where you combine volume-based shapes.
- **Maya:** Similar in concept to **Booleans**, but SDF operators are **procedural and real-time**, unlike polygonal Booleans that can be slow and require mesh cleanup.
- **Cinema 4D:** Comparable to **Volume Booleans** or **MoGraph Effectors**, but SDF operators allow **smooth blending** (like Smooth Union) without generating messy geometry.

How to Use SDF Operators

Step 1: Add Two SDF Primitives

- You must have **at least two rReligion Primitives** in your scene for an operator to have any visible effect.
- Applying an operator to only one primitive will produce no result.

Step 2: Apply an Operator

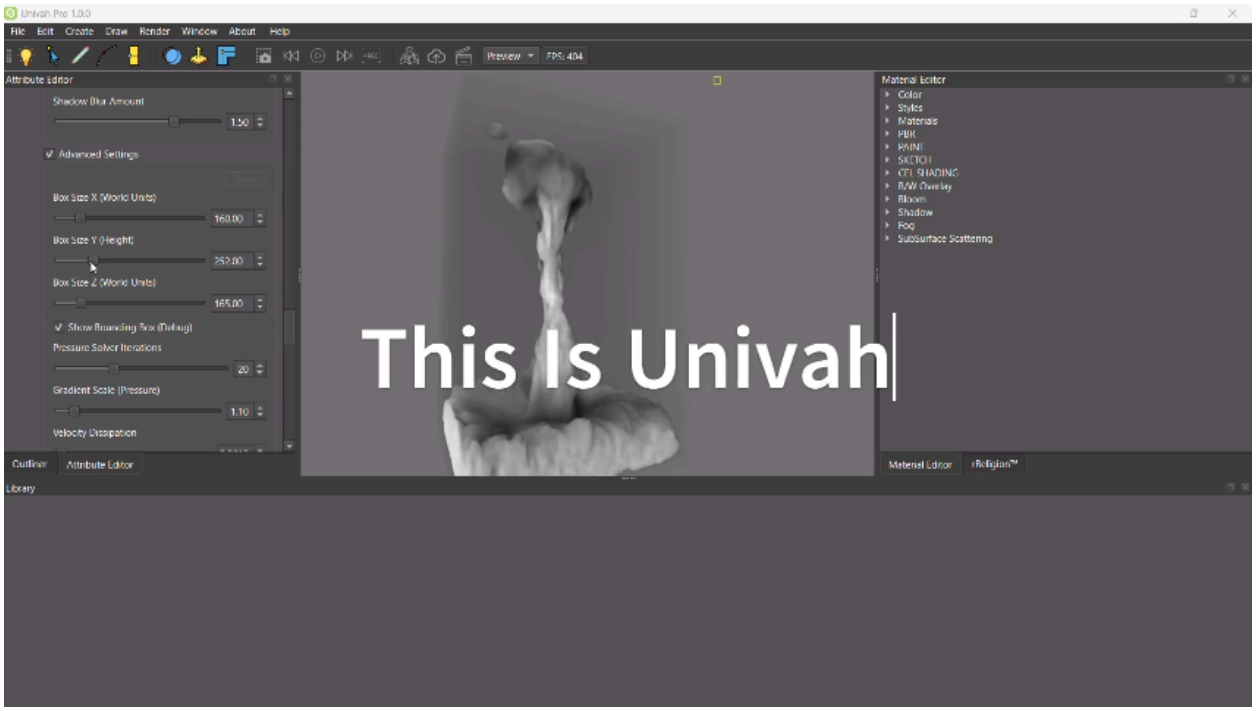
1. Select an SDF primitive in your scene.
2. Open the **Attribute Editor** and navigate to the **Operators & Modifiers** tab.

    - Note: This tab only appears when an SDF primitive is selected.

3. Click the **Add Operator** dropdown and choose an operator to apply.
    - The operator will affect the primitive with the **red dot** next to it.

For a complete step-by-step visual tutorial, watch: [SDF Operators Tutorial]

FLUU™ - Real-Time Fluid Simulation (rReligionVFX™)



Fluu: Real-Time Fluid Solver in Univah

Fluu is the **real-time fluid simulator** within **rReligionVFX** in Univah. Utilizing the Navier–Stokes Equations It allows you to create **dynamic liquid and fluid effects** directly in your scene without waiting for slow cache calculations or offline simulation.

Key Features:

- **Real-Time Simulation:** See fluids interact instantly in the viewport.
- **Interactive:** Adjust parameters like viscosity, flow, and collision objects while watching immediate updates.
- **Integrated with rReligionVFX:** Fluu works seamlessly with rReligion primitives and operators, letting you combine fluids with SDF-based effects for complex procedural VFX.

- **Client-Ready Export:** Like other Univah features, Fluu simulations can be exported using **Instant Video Export**, making them ready for presentation or final output without additional rendering steps.

Typical Use Cases:

- Water, lava, or liquid pouring effects.
- Fluid interactions with procedural objects and SDF primitives.
- Real-time previews of complex fluid VFX for animation, motion graphics, or cinematics.

💡 **Equivalent in Other Software:**

- **Houdini:** Fluu is like Houdini's FLIP Fluids or particle-based fluid simulations, but fully real-time.
- **Blender:** Similar to Blender's Mantaflow or grids, but Fluu updates instantly in the viewport without baking.
- **Maya/Cinema 4D:** Comparable to Bifrost or RealFlow setups, but again, Fluu is real-time and interactive.

NOTE* Future versions of Univah Lite will come with fluu included at no extra cost. Fluu is currently in beta and is still under development.

See the video here https://www.youtube.com/@UnivahFilmEngine/playlists

Rendering

Rendering in Univah Lite

In previous sections, we briefly introduced the **Instant Video Export** feature, which captures exactly what is in the viewport in real time and exports it directly to your hard drive as an MP4 or AVI video. Watch the video tutorial here.

Univah: A Revolution in Real-Time Rendering

It's no exaggeration to say this feature is revolutionary. The **Instant Video Export** can produce output that is ready for an official portfolio or even direct submission to a client. This means that **The Univah Film Engine** is the first real-time 3D software designed to **eliminate render queues, render farms, and cloud rendering**, making the animation workflow faster, simpler, and far more efficient.

Maya & Unreal Engine vs. Univah

In Maya, there is a feature called **playblast**, which is primarily used for quick previews of animatics. Playblasts are useful for checking timing or blocking, but they are **not suitable for**

client-ready submission. They lack final lighting, volumetric effects, high-quality shading, voice acting, and other production-level details. After exporting a playblast in Maya, you would still need to go through the traditional, often slow, offline rendering process to get a final-quality output.

Similarly, in Unreal Engine, while the **Movie Render Queue** can produce high-quality output, it requires extra setup, longer render times, and often multiple passes to match production standards.

This is where **Univah excels**. In Univah, the **Instant Video Export** delivers **final-render quality** directly from the viewport. The only difference between Instant Export and a full render is resolution:

- **Univah Lite:** up to 6K
- **Univah Pro:** up to 8K

With Univah, you can export **client-ready videos instantly**, without waiting for long renders, eliminating bottlenecks and giving your workflow unmatched speed and efficiency.

Watch this video to learn how to render in multiple resolutions in Univah
https://www.youtube.com/@UnivahFilmEngine/playlists

RESOURCES:

Univah - The Unreal Engine Alternative | Watch this video
https://youtu.be/juUgGb9-HZ4?si=d-ynNoVhGXuMzCqG

Fluu - Real-Time Fluid Simulation in Univah
https://www.youtube.com/@UnivahFilmEngine/playlists