

TYPEMONKEY3D USER GUIDE

TypeMonkey3D (TM3D) is a new script for Adobe After Effects that automatically adds dimension, materials, color, lighting and image maps to kinetic text animations created with the original version of TypeMonkey (2.5D). Using the new Advanced 3D Renderer available in AE2024 and later, it also allows the user to quickly and easily change many of the 3D features dynamically after the build.

INSTALLATION

TypeMonkey3D requires AE 2024.1 or later.

The easiest way to install and license is by using the [aescrpts + aeplugins manager](#).

To install a trial you can select 'Add Trial' from the 'Account' menu.

Manual installation:

To install TM3D as a dockable panel, place the (.jsxbin) and accompanying TypeMonkey3D folder (containing assets and .ffx files) in After Effects/Scripts/ScriptUI Panels (MAC) or After Effects/Support Files/Scripts/ScriptUI Panels (Windows).

The trial period is seven days with a maximum word count of 10.

The following is a breakdown of the process and key sections of TypeMonkey3D, as well as effects controllers involved in the creation of 3D kinetic text animations.

PROCESS OVERVIEW

1) Start by creating a TypeMonkey build using the updated version available in the downloads section of your aescrpts account. This new version is optimized for use with TM3D.

2) Once the build is complete, you can access the TM3D script by clicking 3D on the TypeMonkey UI. However, that script is not dockable. If you wish to dock it, launch it through the Windows menu.

3) Set the TM3D UI (or use the default setting) and click 3D IT! TM3D will automatically go through the following process:

- A) Duplicate the comp and change the renderer to Advanced 3D
- B) Assign each text layer geometry & materials as dictated by the UI.
- C) Create an Environment Light and place an HDR into the comp (manual selection of the Environment layer is necessary for the initial build)
- D) Create Separator Layers that serve as placeholders if Image Maps are generated.
- E) A series of Effects Controls are created on the Master Control Layer to make it easy to revise the Layout transforms, Environment rotation, Lighting, Appearances, Geometry and Materials (each will be broken down more in-depth later)

4) Image Mapping the face of the text is an optional Post-Build process...meaning TM3D needs to have an existing 3D build created using the Advanced Renderer to proceed. If you choose to use one of the preset images, or use a custom image, select one from the dropdown and click "Add Image". TM3D will go through the following steps automatically:

- A) Duplicate the master comp 2 times
 - Comp 1 - iMAP: TM3D will convert this comp back to Classic 3D, parent an image to each text layer and use that text layer as a track matte for the image.
 - Comp 2 - Matte: TM3D will create a face matte in Advanced 3D by colorizing the bevels, sides and backs of the text layers black, while coloring the faces white. It will also adjust the lighting and materials to ensure a clean matte will be created.
- B) Both of these comps are brought into the original TM3D comp, and the Matte Comp is used as a Luma track matte for the iMAP Comp.
- C) Effects controls are placed on the iMAP layer to dynamically control the image Transforms, and Color Correction controls, and the Matte Comp is shy'd.

USER INTERFACE CONTROLS:

The UI is broken down into 5 basic sections: Materials, Environment, Color & Opacity, Geometry and Post-Build.

MATERIALS

The Advanced 3D Renderer uses 360-degree High Dynamic Range Image (HDRI) files as a light source to produce realistic lighting, reflections, and shadows on 3D layers by surrounding the scene with an image-based environment map. How the text reacts to the lighting is controlled by the settings in the Materials section.

Ambient: The amount of After Effects ambient lighting applied to the layer, if any is present (there may not be any).

Diffuse: The amount of non-environment or ambient light that effects the text. It's particularly noticeable when Metal is set to 0.

Specular Intensity: Controls how much other reflective 3D objects and the environment map appear on this object.

Specular Shininess: Commonly thought of as roughness (0 is very rough, 100 is very shiny). Note that the response is non-linear, and changes may be most visible in the middle of the range. In addition, you can control the glossiness of the reflection (from blurry to nearly mirror-like) by adjusting the Specular Shininess property.

Metal: Controls how much a surface alters the color of specular reflected light.

Note: As we develop this script, Cast Shadows and Accept Shadows are slow and grainy (unless used at high render quality), so we've turned them off by default.

COLOR and OPACITY

Simply put, each text layer is comprised of 4 surfaces: the Face, Bevel, Side and Back. This section controls the color and opacity applied to each. There are numerous presets to choose from - including some that isolate each surface individually for use in multi-build comp designed for maximum control of surfaces. Also, if you prefer the original palette applied in TypeMonkey, chose None.

Note: The built-in AE bevel exists both on the front AND backside of the text, so at times it might be unexpectedly visible. Using the Convex bevel style extenuates the visibility when viewed from an extreme angle...that's why we chose Concave as the default setting.

GEOMETRY

Bevel Style: The form of the bevel. Options are None (default), Angular, Concave, and Convex.

Bevel Depth: The size in pixels (horizontally and vertically) of the bevel.
Hole Bevel Depth: The size of bevel for inner parts of a text character, such as the hole in an "O". It's expressed as a percentage of the Bevel Depth.
Extrusion Depth: The pixel thickness of the extrusion. The side (extruded) surface is perpendicular to the front surface.

ENVIRONMENT

This section controls the HDR image applied to the Environment Light Source that AE uses to illuminate the scene. There are nearly 40 1920x1080 preset HDRs to choose from, or create your own and import it using the Custom selection.

For more information on how to create HDRs in Photoshop see here:
<https://helpx.adobe.com/photoshop/using/high-dynamic-range-images.html>

The preset HDRs are mostly abstract images because, due to the flat surfaces of the text face, it's the most versatile type of image we found.

*Important to note - If you don't want to use the built-in AE preset Environment, you must manually select the TM3D HDR layer. This is only necessary for the initial build. You can do this by twirling down the Environment Light (blue layer in the timeline) > Light Options > Source, and select the specific HDR you selected in the UI. Once you do this the first time, if you update the Environment, it will update the source automatically.

After the initial build, if you'd like to change the environment to another preset, just click the icon button and select a new one (or Custom) and click Update. TM3D will swap a new one for the existing HDR.

By checking the Animate Rotation box, TM3D will place an expression on the Environment Light Y Rotation and slowly rotate the environment reflected in the surface of the text. The speed can be controlled by the Environment Effects Controls on the Master Control layer.

Show in Background will turn on the visibility of the HDR image. A CC Environment effect is applied to it to simulate a spherical map. An expression is applied to Horizontal Pan if Animate Rotation is active to also rotate the visible background.

Note: If Show in Background is checked on the initial build, you will see a pop-up instructing you to click Update on the UI after the HDR is selected in the light source for the initial build. Once selected, the environment will not be visible. Updating it will make it visible again.

ADD Y ROTATION

This option is an outlier in the UI. When selected, this will add a Y rotation to every 4th or 5th word, adjusting the original TypeMonkey layout and adding to it a new dimension.

Note: You can also rotate and/or move each text layer manually by selecting it and adjusting the transformations using the Property Panel.

PRESET LOOKS

These presets adjust the Material and Geometry sections of the UI and are a shortcut designed to quickly change text from reflective to flat, as well as thick to thin.

POST-BUILD

This optional section controls the Image Map applied to the face of the text. There are numerous preset images you can use - or you can use your own image by selecting Custom.

To initiate the build, click Add Image. This button works in one of two ways.

- The first time it's used, it will apply the image designated in the dropdown.
- The second (or more) times its clicked, it will add additional textures to the face of the text by creating more builds. These can be combined using various blend modes selectable in the UI, or manually selected in the timeline.

Once a build is created, if you want to change the face texture, select a new texture from the dropdown and click Update. This button functions in several different ways:

- To change an existing texture
- If multiple textures are present in the comp, you'll be prompted to either select a specific texture to substitute, or if none are selected you can substitute all of them.
- If a transformation has changed in the camera or layout, the existing texture will no longer align since it was built using the old set up. By clicking Update, it will delete the old set up and use the new one - aligning the texture with the new update layout. Though not critical, it's best to assign textures as a last step in the process.

Note: An Update will not transfer any changes in the Effects Control set up from the original Texture layer.

TM MASTER CONTROL LAYER EFFECTS CONTROLS

Once a 3D build is created, TM3D will place several dynamic effects controls on the Master Control Layer.

TRANSFORM CONTROLS

With the exception of Scale, these control the transformations of the MonkeyCam Target layer. Scale is parented to the Master Control Layer itself. You can globally adjust the entire layout using these controls.

To adjust each word individually, simply select the word and use the property panel to change settings. Keep in mind that if the camera is locked onto the text layer, it will appear as if only the adjacent text layers are moving. This is due to the fact that the camera is using the selected text layer as a target and is also adjusting relative to that text layer, so it will appear to be stationary - but that is not the case.

GEOMETRY, MATERIAL, APPEARANCE CONTROLS

These mirror the UI and can be changed after the build. Unfortunately, no dropdown options (such as Bevel) on the UI can be altered post-build. You can change them manually by unlocking the text layers, or rebuild.

ENVIRONMENT CONTROLS

The Rotation control changes the X Rotation of the Environment Light. This comes in handy if you want to change the angle of the HDR that's being reflected in the text layers.

The Auto Rotation Speed controls the constant speed of the Y Rotation of the Environment Light. It also controls the Horizontal Pan of the CC Environment Effect applied to the HDR, which is only visible if selected on the UI, or made visible manually.

LIGHTING CONTROLS

Light Intensity controls the strength of the Environment Light, while Ambient Intensity links to the intensity of the Ambient Light (which is off by default).

IMAGE MAP EFFECTS CONTROLS

When an Image Map is created, effects controllers that link to the image maps are placed on the iMap comp layer visible in the master timeline.

IMAGE MAP TRANSFORM CONTROLS

These adjust the transformations of the image maps within the face of the text. Each text layer has its own texture applied. If you want to change individual image maps, open up the Image Map comp and swap them out there.

The preset textures are seamless 1000x1000 jpegs. They can be easily reduced in scale, rotated or moved using the effects controls. If your design calls for very large text that exceeds the image size, use the Expand controller to adjust the RepeTile Effect to create a larger texture without increasing the scale of the image.

There are also Hue/Saturation and Tint controls on the texture layer.

Tip: If you find there's too much contrast variation in the text face, use the Default_White Image Map set to Difference mode and adjust the opacity accordingly to even out the variations.

Please let us know if you have any questions or comments at aescrpts.com

Enjoy TypeMonkey3D and thank you for your support!

Dan Ebberts & Orrin Zucker