What is rendering?

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About Rendering

Your new digital asset is created through a process known as rendering. Rendering consists of several stages, described in more detail below.

The Stages of Rendering

- Modelling
- Texturing
- UV Mapping
- Lighting
- Camera
- Rendering
- Retouching

Modelling

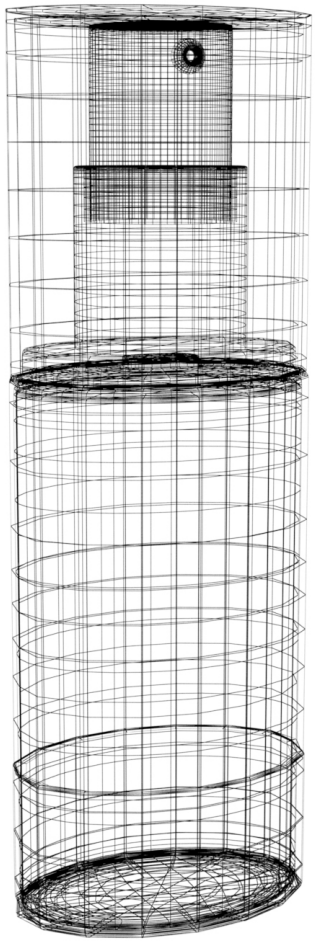
3D modelling (or three-dimensional modelling) is the use of software to create a virtual three-dimensional duplicate of any physical object. The result is called a 3D model.

How does it work?

The manual modelling process of preparing geometric data for a 3D render can be compared to the art of sculpting.
Points in a virtual 3D space are connected to create polygons, which make up the surface of an object. The more detailed the object, the more polygons are created to achieve a smooth, realistic result.
The model can also be physically created using a 3D printer.

What do we need to create your 3D model?

A physical sample of your product as a reference will achieve the best results.
Alternatively, any drawings or CAD data will aid in constructing your 3D model.



Texturing

Texture mapping is used to enhance the look and feel of the surface.
Think of it as adding decorative paper to a plain, white box.
In 3D, texture mapping is the process of adding graphics to the geometry.
These graphics can be anything from photographs to original designs.
Textures can help age your object, make them more attractive, and increase their realism.

What do we need to texture your 3D model?

Assets like colour palettes and packaging artwork are vital.
A physical sample of your product will help us analyse it's reflective and refractive properties.

UV Mapping

A 3D object has many sides, making it difficult for a computer to correctly put a 2D texture onto it.
A UV map is basically the 3D model stretched out into a flat 2D image.
Each face on the geometry is tied to a face on the UV map, making placing a 2D texture onto your 3D object much easier.

Lighting

Much like in the real world, various lighting techniques exist to help make your virtual object come to life.

What do we need to light your 3D model?

A reference image of an object that captures what you want to achieve with your 3D model.
Tell us what you like about it, and we can create a light setup to best match your desired result.

Camera

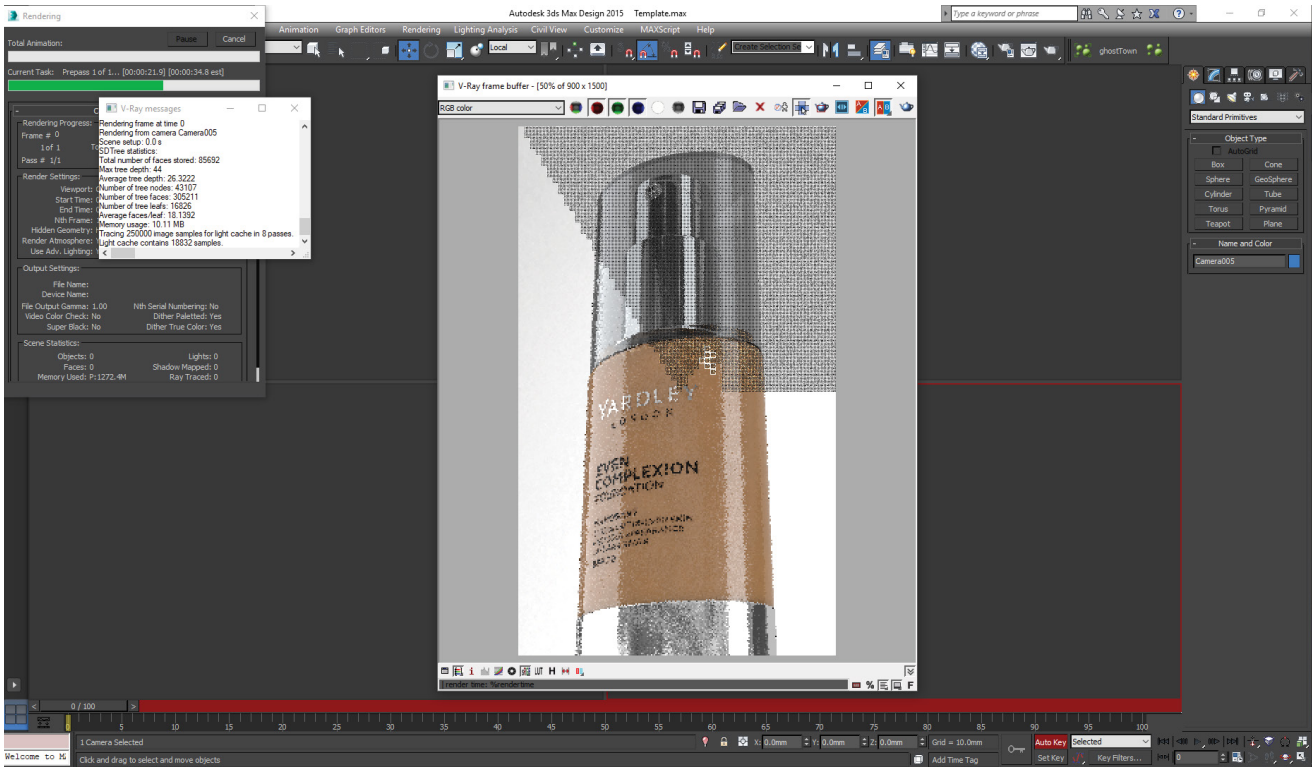
Even though we are working with a 3D model, the output is typically a 2D image. Therefore, a camera needs to be set up to ensure we capture the angle that best suits your product, be it a catalogue, website or advert.

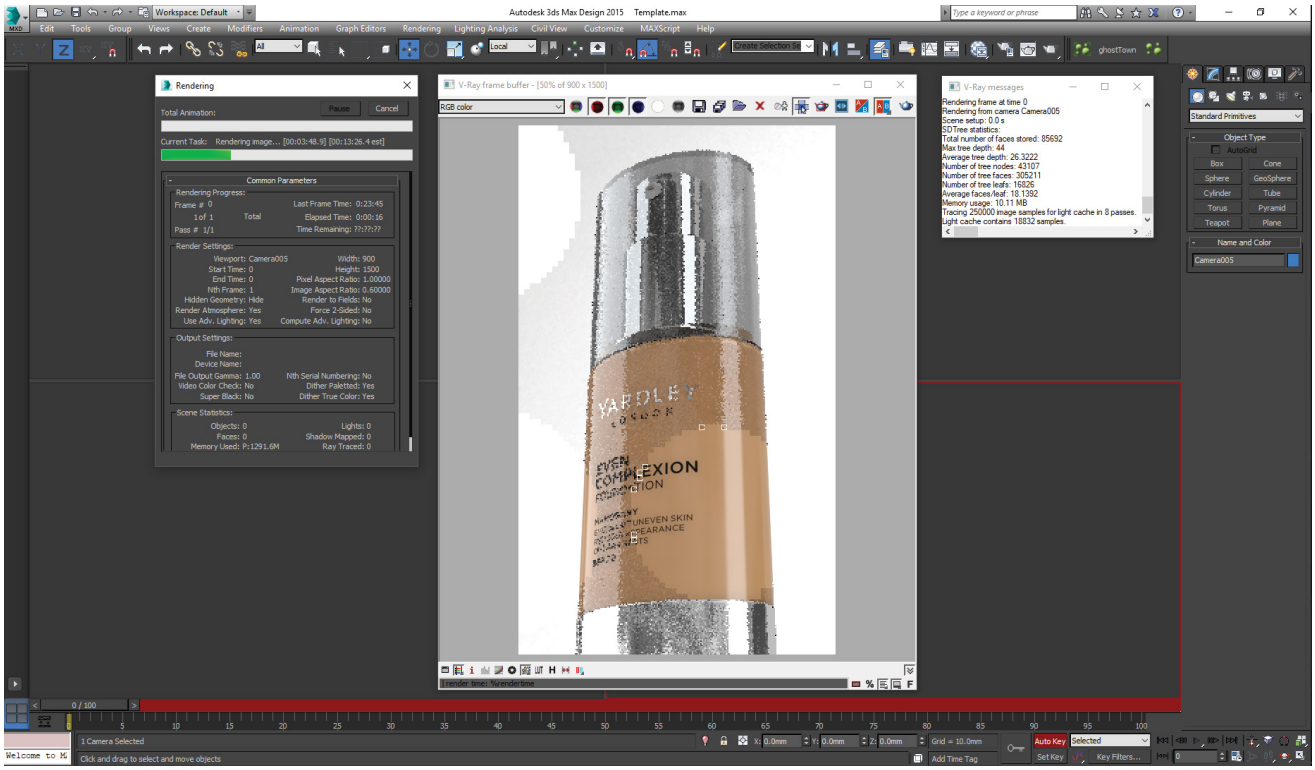
What do we need to set up your camera?

Your input, or a reference image. We are also happy to make a recommendation or provide some options if you're unsure. If you prefer to choose the camera angle yourself, you can do so via a real-time viewer. Example here.

Rendering

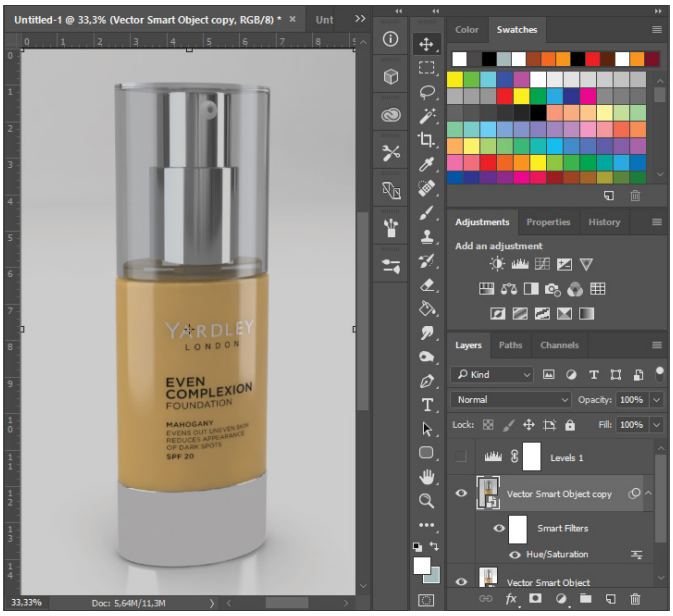
Rendering refers to the process of creating a 2D image or animation from the prepared 3D scene.
This is the virtual equivalent of taking a photo or video of the scene after the setup is finished.
Several different rendering methods have been developed.
Rendering times range from a fraction of a second to several days for a single image/frame, dependent on the desired level of detail and output size.

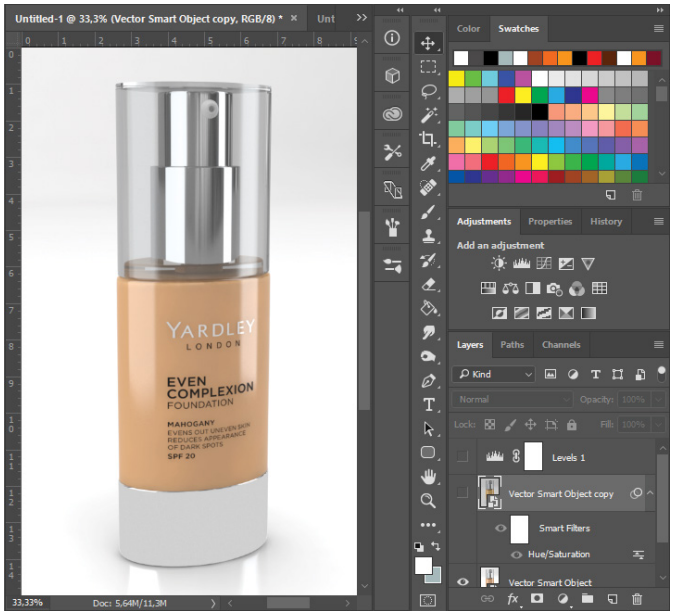




Retouching

Your final product is further enhanced through retouching.
Finishing touches, such as colour adjustments, are made to ensure your product looks as good as it does in real life, maybe even better.





Finished product

Future of your Digital Asset

Sound a little overwhelming?

The good news is that steps 1-3 of this process only need to happen once. Once you have your completed 3D model, your digital asset can be reused in all your future campaigns, whether it be print, TV or digital.