dreamoc™ ◇
diamond

Content manual 1.0

Contents

Dreamoc Content Philosophy.

The Dreamoc gives an illusion of the science fiction hologram, known from movies like Star Wars and Star Trek.

It is important to try, in all parts of a Dreamoc production, to support this experience/illusion. For example by working with more simple objects, having a 60% maximum picture surface, so that the object is still very much cut out on the black background.

Also please avoid using standard video production effects such as simple cuts (change of angle), wipes, dissolves (unless to/from black) etc.

"We borrow the veracity of the physical world, by setting our video pixels up in an actual space. This is the secret behind the attention that we attract when we show pictures in the Dreamoc." says Peter Simonsen.

The Dreamoc show films based on the Cut Out Video philosophy; in other words, the format is free and unframed, as the idea is to break out of the frameworks and instead use actual space as the framework for narration and the video image.

A perfect Dreamoc experience will exist, when you experience that reality becomes a scene for the virtual object, and thereby emphasizes the presence of some isolated 3D. It is the real physical room that gives the third dimension.
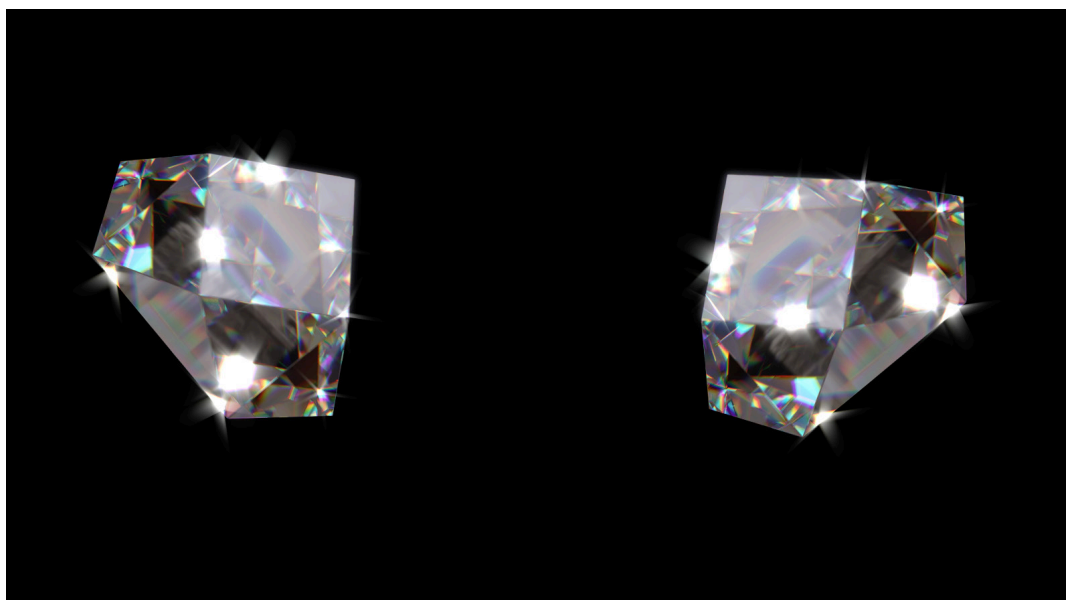
"We simply use physical space to create a three-dimensional feeling, as though the object was actually present in the space." says Peter Simonsen.

This manual is intended for customers and partners who want to make their own computer animated content for the Dreamoc system.

To achieve a good result, we strongly recommend to have samples of the content evaluated by Realfiction or an authorized Realfiction partner.
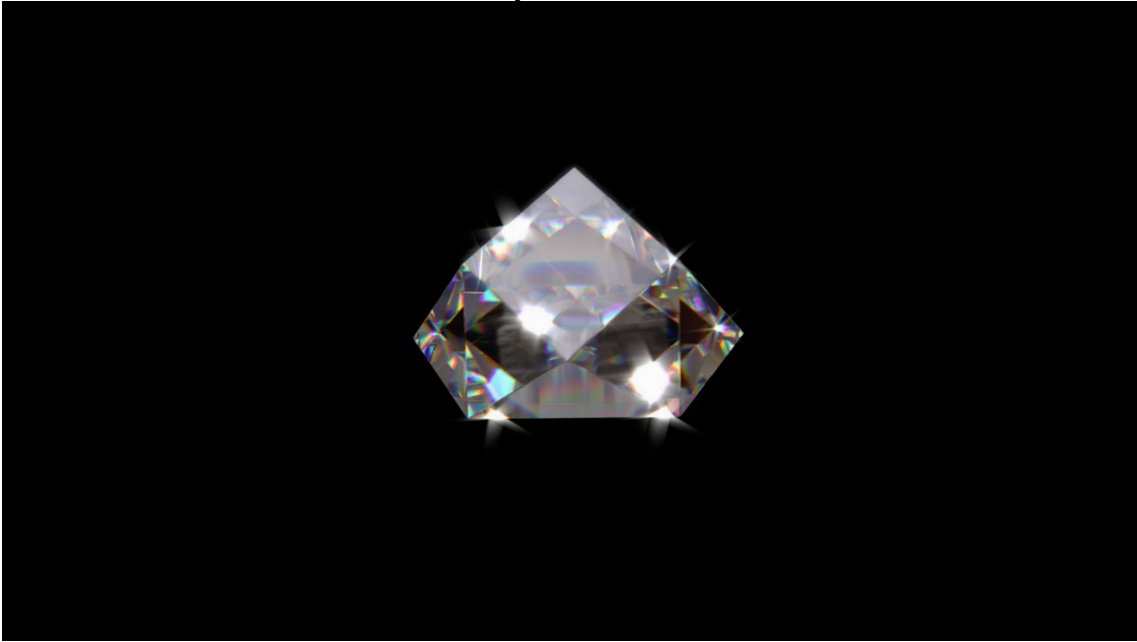
Definitions

Dreamoc Content = Technically a video file (MP4, WMV, MPEG etc.) prepared for a Dreamoc display. Content can be made from any combination of the following elements: Text, pictures, video, 2D animated computer graphics and 3D animated computer graphics. Depending on the Dreamoc model the content has been prepared for, the video might show several instances of rotated and mirrored versions of the "Master animation".

Master animation = Most Dreamoc displays have more than one viewing side (or glass). As opposed to the common belief that each side shows different images, it is in fact in most cases the same animation that is shown on each side at all times. The "Master animation" is therefore the animation seen on each side.

Example:

Delivery Standards

When creating your video content please note that there are differences in the setup i.e. framerate and video codec depending on whether your display have the standard HD screens or if you have chosen the 4K screen upgrade.

The final movie for Dreamoc Diamond should have the following specifications:

Codec: MPEG1, MPEG2, MPEG4 or H.264 (recommended)
Resolution: 1920:1080 (960x960 pixels pr side)
Image aspect ratio: 16:9
Frame rate: MPEG1/2/4 = maximum 30fps, H.264 = maximum 60fps.

For 4K screen upgrade
Video Codec: 4K video must be encoded as a H.265 (HEVC) file; it cannot be encoded as H.264.
Resolution: The maximum supported resolution is 3840x2160x60p or 4096x2160x60p.
Image aspect ratio: 16:9
Color Depth: 4K video can be encoded at 4:2:0 subsampling with 8 bits (Main Profile) or 10 bits (Main 10 Profile) of depth.

Recommendations:
- If you wish the flexibility of being able to use your content across different Dreamoc display versions, we strongly recommend creating the master animation in as high a resolution as possible, and save it in an uncompressed format.
- Recommended frame rate is 30 or 60 fps non-interlaced, as this will give slightly smoother motion than 25 fps.
- Soundtrack (if used) should be saved in a master format as well, for example as a separate 16 bit, 48.000 kHz, stereo Wave file.
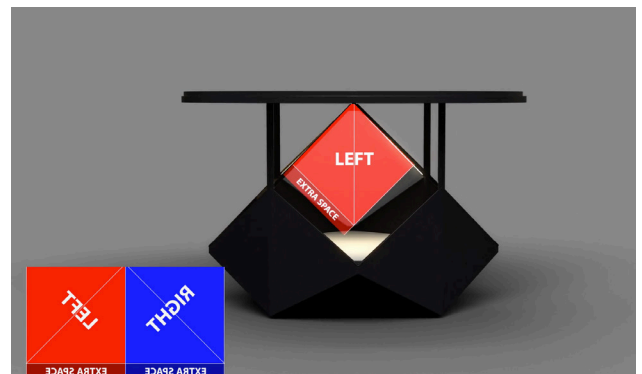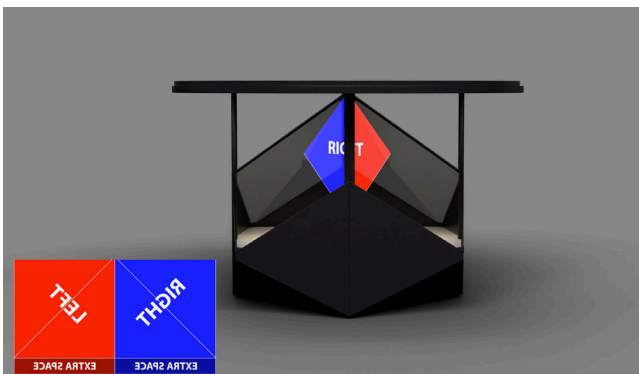
Animation guidelines

First of all it's important to remember, that content for the Dreamoc systems will be seen as floating holographic objects inside a glass chamber.

The Dreamoc Diamond consists of 4 parallelogram shaped optics. As a default, the content for each of the 4 sides will be the same. To make different content for each side of the display, you will need an additional media player.
When creating content for the Dreamoc Diamond each side of the display is constructed of a left side and a right side. These need to overlap in order to create a unified image that fits the parallelogram shaped optics.

We recommend using our content guidelines for After Effects easily fit and adjust your video content to the display.

It is recommended to:

- Apply rotation to all objects including text.
- Give objects a "floating" movement to enhance the illusion of a free-floating holographic object.
- Place the camera according to the centre of the object.
- All text should have 3D depth. A good idea is to make it rotate in a circle around the objects.

Light

Black is invisible in movies shown in the Dreamoc Diamond (or 100% transparent), and gradients close to black is hard to see. A dark shadow on the object might therefore be seen as a hole in the object.

It is recommended to:

- Give the object(s) a more even light than you normally would, avoiding too many and too hard shadows.
- Give the object(s) a bit more light than you normally would, allowing the holographic object to appear more vivid and clear.

What NOT to do

- The content must NEVER exceed the 16:9 image. Be sure that no part of the object(s) goes beyond the boundaries of the image. Pay extra attention to light beams, glow, particles etc.

- Avoid static objects. Make sure to ad movement and/or rotation to all objects including text.

All content for the Dreamoc Diamond should be made in dialogue with either Realfiction or an authorized Realfiction partner.
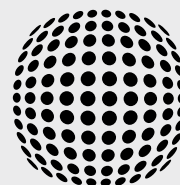
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