

Animation with Moving Objects

Introduction

In this chapter we'll talk about the first type of animations V-Ray can render - these with moving (animated) objects. Generally V-Ray is able to animate all numeric/color values of plugin properties. This means that we'll consider "animation" every plugin property which value is changing over time.

Parameters

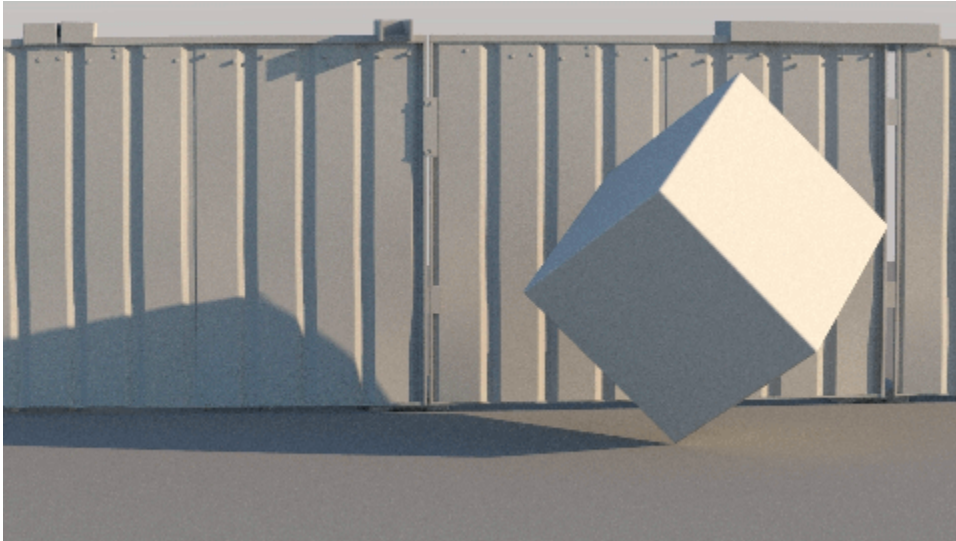
Generally we need to set some values in the *SettingsOutput* plugin to have animated properties inside the scene. Here's an example excerpt from a .vrscene file with animated values:

```
SettingsOutput {  
  img_width=400;  
  img_height=400;  
  anim_start=1;  
  anim_end=10;  
  anim_frame_padding=4;  
  anim_renumber_on=0;  
  anim_renumber_start=0;  
  anim_renumber_step=1;  
  anim_ren_frame_start=0;  
  frame_start=1;  
  frames_per_second=1;  
  frames=List(  
    List(1, 10)  
  );  
}
```

Here are the animation related parameters explained:

- **anim_start** - Start of animation range in time units
- **anim_end** - End of animation range in time units
- **anim_frame_padding** - Animation Frame Name Padding
- **anim_renumber_on** - If true, frame renumbering is used
- **anim_renumber_start** - Start number for renumber frames
- **anim_renumber_step** - Renumber frames step
- **anim_ren_frame_start** - First frame of animation range
- **frame_start** - The frame number at the start of the animation range
- **frames_per_second** - Number of frames per unit time (related to `SettingsUnitsInfo::seconds_scale`)
- **frames** - List of frames to be rendered. May contain intervals in the form of lists with start and end frame

Example



The above animation is generated by rendering the file "Animated_Object&Camera.vrscene" from the [scene bundle](#). Check the comments inside the file and the included ones to see how GI can be used more optimally in an animation.

Code Example

Here we'll show how to render a static scene and animate one of the object's positions: