

**BASIC VIDEO MODELING METHODS: IMAGE SYNTHESIS AND ANALYSIS, 3D
MODELING, MORPHING AND TEXTURE SYNTHESIS**

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Modern technology allows you to create amazing images and videos that were not possible a few decades ago. One of the key tools for creating and enhancing images and videos are video modeling techniques. They allow you to create realistic photographs, animation, virtual reality and computer games. In this article, we will consider the main methods of video modeling: image synthesis and analysis, three-dimensional modeling, morphing and texture synthesis.

Synthesis and analysis of images

Image synthesis and analysis are techniques that are used to create new images based on existing ones. Image synthesis allows you to create new images that can be used for various purposes, such as the creation of advertising materials, films and games. Image analysis, on the other hand, allows you to extract information from existing images such as color, shape, and texture.

Image synthesis and analysis are used in various fields such as medicine, science, art and entertainment. For example, in medicine, this method can be used to create 3D images of organs and tissues, which allows doctors to more accurately diagnose diseases and plan operations.

3D modeling

3D modeling is a technique that is used to create 3D models of objects and scenes. It allows you to create realistic 3D models that can be used to create animation, virtual reality and computer games.

3D modeling is used in various fields such as architecture, medicine, science and entertainment. For example, in architecture, this technique can be used to create 3D models of buildings and spaces, allowing architects to more accurately plan and design buildings.

Morphing

Morphing is a technique that is used to create a smooth transition between two images. It allows you to create animations that smoothly transition from one image to another.

Morphing is used in various fields such as film, television and advertising. For example, in cinema, this technique can be used to create special effects such as the transformation of a person into an animal.

Texture synthesis

Texture synthesis is a technique that is used to create new textures based on existing ones. It allows you to create textures that can be used to create realistic images and videos.



Texture synthesis is used in various fields such as graphic design, computer games, and virtual reality. For example, in computer games, this technique can be used to create textures for various objects such as buildings, cars, and characters.

In conclusion, basic video modeling techniques are essential tools for creating and enhancing images and videos. Each of these methods has its advantages and disadvantages, and the choice of method depends on the specific problem to be solved. They can be used in various fields such as medicine, science, arts and entertainment and their use can lead to amazing results.

