Content Creation

Formats supported by CGI Studio

3D File Format: FBX

While import software (Autodesk FBX SDK) supports several file formats, due to limitations of different formats, Scene Composer supports FBX import only.

Supported 3D Content

- Mesh: Geometry as Array Buffer, indexed Array Buffer
- Nurb: converted to Mesh
- Patch: converted to Mesh
- Material: Ambient color, Diffuse, Emissive, Specular, Specular Power
- Light: Spot, Directional, Point
- Camera: field of View, near Plane, far Plane, aspect Ratio
- Animation: Translation, Rotation, Scaling, Visibility
- Scene Graph: Object position, deep Groups, flat Groups (i.e. linked objects)
- Skeleton: converted to Group

2D Image and Texture Formats

A wide range of 2D content is supported for texture generation:

- Jpeg - .jpg, .jpe, .jpeg
- Portable Network Graphics - .png
- Graphics Interchange Format - .gif
- Truevision Targa - .tga
- Windows Bitmap - .bmp
- Tagged Image File Format - .tif
- Various others

> During image export, **gamma correction must be disabled!**

Content Creation Rules

Procedural Shaders

Procedural shaders and special hardware shaded materials are not supported by Candera and not exported by FBX plug-in. Use only textures and standard material properties like diffuse color, specular, emissive and ambient.

Procedural Meshes

Procedural generated meshes are not supported by Candera and not exported by FBX plug-in. Convert your procedural generated meshes to static meshes before exporting.

Reflective Materials

Reflective materials are ignored by Candera and not exported by FBX plug-in. Reflective effects have to be done by environment mapping in Candera.

Material Count

Only the first material of a mesh will be considered by Candera. All other materials are ignored.

Animations

A keyframe sequence cannot contain keyframes with different interpolation types. If a keyframe sequence has different interpolation types Candera takes only the interpolation type of the first keyframe into account. (linear, spline or step)

Different Handling of 3D Coordinate Systems

Almost every 3D DCC tool uses an own interpretation of the 3D coordinate system. Due to this mix-up of coordinate systems, it is not always possible to mix the content of this DCC tools without any problems. Here some examples:

Autodesk 3ds Max

Autodesk 3ds Max uses +Z as up-vector and a right-handed coordinate system.

Autodesk Maya

Autodesk Maya uses +Y as up-vector and a right-handed coordinate system.

MAXON Cinema 4D

MAXON Cinema 4D uses +Y as up-vector and a left-handed coordinate system.

CGI Studio

The Scene Composer and the Candera rendering engine are using the default OpenGL coordinate system which is Y as up-vector and a right-handed coordinate system.

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