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Object integrating possibilities in IPGMovie

It is possible to integrate your own 3D objects for displaying your vehicle, traffic or other geometry objects in IPGMovie. Common CAD softwares provide the option to export files in Wavefront *.obj format. There are also various commercial websites offering object files for download.

Furthermore, IPGMovie provides the opportunity to integrate texture-files into your *.objfiles. The following content will show you how to add your own number plate to a 3D object in IPGMovie.

Inserting a user-defined number plate in IPGMovie

In order to insert a user-defined "number plate" (also known as registration plate or license plate) to a 3D object in IPGMovie, the following line needs to be added in your *obj file between
"### BEGIN IPG-MOVIE-INFO" and ""### END IPG-MOVIE-INFO":
    # NumPlate *name x y z ry rz wi he cur*

- *x, y, z* define the coordinates of the center point of the number plate in frame 1 (vehicle frame).
- *ry, rz* specify the rotation around the y/z-axis in degrees. For example, the expression $ry = rz = 0$ denotes a number plate in the y-z-plane, whose front side can be seen when looking in x-direction.
- *wi, he* define the width and the height of the rectangle in meter whose center is positioned at *x, y, z*.
- *cur* defines the curvature of the number plate. It is used to adjust the added number plate to the geometry of the vehicle graphic file. Positive values indicate a backward bend, the default value is zero which means no bending.
- *name* can either call up a predefined or a user-defined number plate that can be formatted as *.jpg or *.png.
    - use the predefined number plate:
        - o Write PRODUCT at the position of *name*.
    - use a user-defined number plate:
        - o Write NumPlate_<FileName> or just <FileName> (without *.jpg or *.png) at the position of *name*.
        - o The name of texture file (*.jpg or *.png) should always be prefixed with "NumPlate_". This texture file can be located in the Movie directory or its Textures subfolder under the corresponding CarMaker project folder. Otherwise, you need to load the corresponding texture file via <Directory>\<FileName>.

An implementation example

In the above described way, any texture besides a number plate, for example, a company logo can be also positioned on a vehicle. To do this, just save the logo texture file in the right directory and add the command into a vehicle *obj file, in order to insert the corresponding filename and adjust the position.

Here is a simple example that wants to add a speed limit sign on the backside of a truck:
1. Copy the object file "MB_Actros_1996+Trailer.obj" from the installation directory/Movie/3D/Vehicles to your CarMaker project directory/Movie and rename it as "MB_Actros_1996+Trailer+sign.obj".

2. Copy the texture file "SpeedLimit-80_d.png" from the installation directory/Movie/Textures/Signs to your CarMaker project directory/Movie and rename it as "NumPlate_SpeedLimit-80_d.png" (the texture file is available only in CarMaker 6.0 and CarMaker 6.0.1, if you are using other CarMaker version, you can use your own texture file).

3. Open the file "MB_Actros_1996+Trailer+sign.obj" and add the following line after "### BEGIN IPG-MOVIE-INFO":
   # NumPlate SpeedLimit-80_d 0 -0.6 2 0 0 0.6 0.6 0

4. In a TestRun, add a traffic object and choose the movie geometry "MB_Actros_1996+Trailer+sign.obj" for it.

5. As the following picture shows, you can see the speed limit sign on the backside of a truck in IPGMovie.