the KLIPSPRINGER is a small antelope living in Africa, while not as big or capable as a BONGO, it can help you output slider animations as a series of files.

**Installation**

Copy the provided klipspringer.gha file into your Grasshopper components folder (e.g. C:\Program Files\Rhinoceros 4.3\plugins\Grasshopper\components)

klipspringer will show up on your interface in the "Extra" tab on the right.

**Usage**

Setup the correct inputs as described on the left. When you change the GO toggle from FALSE to TRUE, the component will prepare itself for outputting the files. Now, each time the component gets redrawn (e.g. when you change a slider value) it will output a new file starting from 00000 until 99999. The easiest way to do that is by right-clicking on a slider and selecting "animate...". Note that the image folder and file output folder are independent from each other. The component will now save a sequence of files.

**Input**

klipspringer needs the following inputs:

- **GO (boolean)** - use a boolean toggle to switch between TRUE and FALSE. Set to false while setting up the component or to reset the counter. Set to true to prepare for the output.
- **MESH (mesh)** - input a flattened list of meshes. Use the "mesh brep" component to mesh existing surfaces or solids.
- **LAYER (int)** - input a list of integer values. The list must be as long as the list of meshes. If you have three meshes and want to assign the first mesh to the third layer in the Rhino list and the other two meshes to the first layer, the list of integers looks like that: 2, 0, 0. If you want different materials, select a material in Rhino for each layer.
- **PATH (string)** - input a string defining the path where you want to put the files. Use e.g. the panel or string component. Include the "\" at the end. E.g.: c:\animation\.
- **FILEXT (string)** - input a string defining the extension of the resulting sequence of files. E.g.: .obj or .obj
- **SCENE (boolean)** - use a boolean toggle to switch between TRUE and FALSE. TRUE exports all items in your scene, FALSE exports just the meshes.

**Issues**

Manually pushing a slider usually results in a series of error messages. If you want to change a value while GO is on TRUE, right-click a slider and manually type in the new value.

If you have any nurbs objects in the scene and SCENE is set to TRUE, it will ask you for meshing parameters each time it saves a file (if you use a mesh format). Convert the nurbs into meshes before running the script or set SCENE to FALSE and reference the surrounding geometry as well.

At the end of each frame, the component will select all meshes and delete them. Put all meshes you want to keep on a locked layer.

**Working with Mesh Sequences**

There are a number of ways to render sequences of meshes. Just google for "obj sequence", as obj is most commonly used. Here are some links:

- Blender: http://blenderartists.org/forum/showthread.php?t=1154134
- Cinema 4d: http://www.stf-project.de/index.php?id=106
- Maya: http://www.sschmidt.subsites.org/241.8.html
- Modo: http://www.modo.stenson.tv/
- Max: http://www.scriptspot.com/3ds-max/scripts/objloader-v1.3

These are just examples - it shouldn’t be difficult to write import scripts for other software suites.

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Contact me at braumann@iam.uni-wien.ac.at if you have any questions or suggestions. Please note that this is a work-in-progress software, I exclude all liability for any loss or damage (including loss of profit). Don’t feed the KLIPSPRINGER.