PyAssimp Readme

A simple Python wrapper for Assimp using `ctypes` to access the library. Requires Python >= 2.6.

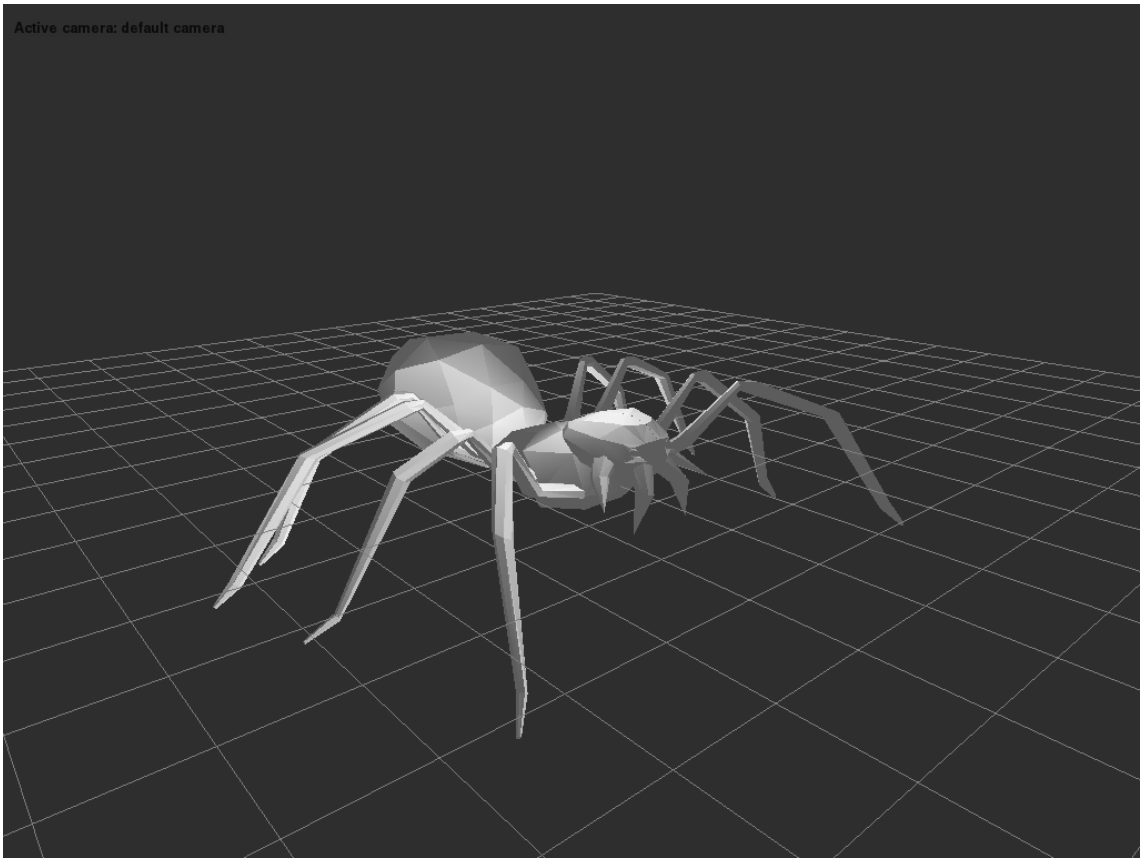
Python 3 support is mostly here, but not well tested.

Note that pyassimp is not complete. Many ASSIMP features are missing.

USAGE

Complete example: 3D viewer

`pyassimp` comes with a simple 3D viewer that shows how to load and display a 3D model using a shader-based OpenGL pipeline.



To use it, from within `/port/PyAssimp` :

```
$ cd scripts
$ python ./3D-viewer <path to your model>
```

You can use this code as starting point in your applications.

Writing your own code

To get started with `pyassimp` , examine the simpler `sample.py` script in `scripts/` , which illustrates the basic usage. All Assimp data structures are wrapped using `ctypes` . All the data+length fields in Assimp's data structures

(such as `aiMesh::mNumVertices`, `aiMesh::mVertices`) are replaced by simple python lists, so you can call `len()` on them to get their respective size and access members using `[]`.

For example, to load a file named `hello.3ds` and print the first vertex of the first mesh, you would do (proper error handling substituted by assertions ...):

```
from pyassimp import *
scene = load('hello.3ds')

assert len(scene.meshes)
mesh = scene.meshes[0]

assert len(mesh.vertices)
print(mesh.vertices[0])

# don't forget this one, or you will leak!
release(scene)
```

Another example to list the 'top nodes' in a scene:

```
from pyassimp import *
scene = load('hello.3ds')

for c in scene.rootnode.children:
    print(str(c))

release(scene)
```

INSTALL

Install `pyassimp` by running:

```
$ python setup.py install
```

PyAssimp requires a assimp dynamic library (`DLL` on windows, `.so` on linux, `.dynlib` on macOS) in order to work. The default search directories are:

- the current directory
- on linux additionally: `/usr/lib`, `/usr/local/lib`, `/usr/lib/x86_64-linux-gnu`

To build that library, refer to the Assimp master `INSTALL` instructions. To look in more places, edit `./pyassimp/helper.py`. There's an `additional_dirs` list waiting for your entries.