Installing PyBullet and its modules (Windows 10)

Method

Before you start take note that the pybullet readme states: “The software currently doesn't work on OpenCL CPU devices”. I couldn’t get pybullet to work on a laptop (Windows 10) but it’s working fine on a desktop (also windows 10).

1. Ideally, I think it’s best to obtain all the files and examples in a for pybullet before installing. Head to https://pypi.org/project/pybullet/#files and download the latest tar.gz file, similar to the one shown below

2. To extract this file, you can either use an external program or you can use the template shown below for extracting using the command prompt. For me, the tar file from step 1 was downloaded to Downloads and I wanted to extract it into the Documents, as shown below. You can change the command to suit your path and version etc.

```
tar -xvzf C:\Users\Sam\Downloads\pybullet-2.8.1.tar.gz -C C:\Users\Sam\Documents
```

   This should create a folder in the specified location for the pybullet contents as shown below:

3. Ensure you have Visual Studio and the Visual Studio C++ workload installed or alternatively you can get the required C++ build tools separately at https://visualstudio.microsoft.com/visual-cpp-build-tools/

4. Ensure you have the latest 32-bit version of python. You can download it by going to the python website at https://www.python.org/downloads/. When installing python, ensure that you add it to the path by ticking the box. (You don’t need to remove an old version of python before installing a newer version as this is done automatically on installation)

5. If you just installed/updated python in step 4 then PIP (a package manager for python packages) will be up to date so you can skip this step.

   If not, however, then you should ensure that PIP is up to date by entering the line shown below into the command prompt:

```
pip install --upgrade pip
```

6. Next, to install pybullet open the command prompt and enter the following line. This should install pybullet from the extraction folder created in step 2

pip3 install pybullet --upgrade --user

7. The base of pybullet should be installed but there are a couple of libraries needed for some of the examples. Enter the single line shown below into the command prompt to install most of the required libraries such as gym, numpy, cloudpickle, etc.

   pip install --user gym

8. Test that pybullet installed successfully by entering the following lines into the command prompt

   python

   hit the enter key then try the following line after,

   import pybullet as p

   If installed correctly, a build time should be displayed and there should be no errors. To test the pybullet GUI, close and reopen the command prompt then paste either of the following lines (for the examples originally from the readme file) into the command prompt:

   python -m pybullet_envs.examples.enjoy_TF_AntBulletEnv_v0_2017may

   python -m pybullet_envs.examples.enjoy_TF_HumanoidFlagrunHarderBulletEnv_v1_2017jul

9. Head to http://github.com/bulletphysics/bullet3 to install a master branch of the C++ Bullet Physics SDK. This includes a load of pybullet examples and other data files, physics servers, and tools useful for PyBullet.

   Once downloaded, you can find the pybullet examples in the location shown below:

   bullet3-master\examples\pybullet\examples

Tips for the PyBullet GUI

g gets hides the interface for a clearer view

alt or **ctrl** and **mouse1** can be used to pan

scroll to zoom in and out

mouse1 and **scroll** to gain or lose vertical height