**How to get started using VPython**

New to VPython? Try GlowScript VPython:

* Go to [glowscript.org](http://glowscript.org) and create an account.
  + You should see the sentence “You are signed in as <yourusername> and your programs are **here**. “ Click on “**here**”.
  + Click on “Create New Program”. Name it “box”. Below the line   
     Glowscript 2.0 VPython  
     type:  
     box()
* Then click on “Run this program”. You will see a white box on a black background.
  + Use the right button (or CTRL-drag left button) of the mouse to rotate the camera to view the scene from different angles.
  + To zoom in and out use two buttons, or ALT/OPTION-drag, or the mouse scrollwheel. Touch screen: swipe or two-finger rotate; pinch/extend to zoom.
  + Click on VPython Help to see what graphical objects are available.

Experienced Python / VPython user? Try Jupyter VPython (this is a beta version, under active development):

* Install the Continuum Anaconda (or Enthought Canopy) Python distribution. We recommend choosing Anaconda with Python 3.x, especially if you already have “Classic” VPython / Python 2.7 installed on your machine (Canopy uses Python 2.7). If you are an expert Python user, you can install the IPython and Jupyter modules to augment your current Python installation.
* In a Power Shell or Command Prompt (Windows) or Terminal (Mac / Linux) run this command:  
   pip install vpython
* Create a Jupyter notebook and start your program with  
   from vpython import \*  
  or other vpython import statement. If you choose a “VPython” type of notebook, it will automatically execute these necessary statements before importing vpython:   
   from \_\_future\_\_ import division, print\_function  
   from math import \*
* Rotating and zooming the camera is the same as for GlowScript VPython; see above.
* See the GlowScript VPython Help for documentation: [glowscript.org/docs/VPythonDocs/index.html](file:///C:\Users\Bruce\Dropbox\4B\IPython\glowscript.org\docs\VPythonDocs\index.html). GlowScript features not yet implemented are texture, bumpmap, clone, extrusion, vertex, triangle, quad, attach\_arrow, and attach\_trail (but make\_trail works).

How GlowScript and Jupyter Differ from Classic VPython

* Vectors must be represented as vector(x,y,z) or vec(x,y,z), not as (x,y,z).
* The name display has been changed to canvas (for technical reasons).
* The name gdisplay has been changed to graph.
* curve objects and points objects have a new set of methods.

In the VPython Help at glowscript.org is a conversion program to convert from Classic to GlowScript syntax; It does an imperfect but useful job of dealing with the main differences.

To Download Classic VPython:

* Click the appropriate Download option on this page, and follow the instructions. Rotating and zooming the camera is the same as for GlowScript VPython except that neither touch nor the mouse scrollwheel are supported.
* Classic VPython will remain available, but will not henceforth be updated.

More information about VPython and future developments

* Here is a description of the plan for future development of VPython.