

Lesson 1 - The First Steps

-Very basic steps:

1- You need to add the **PYTHONPATH** environment variable to the maya.env or your computer environment variable so that maya can source your scripts automatically.

Note that for python plug-ins you can simply put them in any folder listed in the **MAYA_PLUG_IN_PATH**.

Putting a script a folder listed in the **MAYA_SCRIPT_PATH** will not work, Maya will only source scripts from the **PYTHONPATH**

This is very good way to set PYTHONPATH because it allows you to run multiple copies of Maya with several configurations.

2- The python script doesn't need to have the same name as the main procedure, unlike MEL. I have created a .py script containing small function, I call this script **Foo.py** and saved it in my **PYTHONPATH** folder.

Once in Maya you can source the script by importing it with the command `"import Foo"`

Then you can call any procedure from that script by writing `"Foo.myCommand()"`

3- If you edit the python script in an external editor, use the reload function to refresh the script (this beats restarting Maya :)) ex:
`reload(Foo)`

-Next Step:

First you should download and install [pymel](#). Pymel is the best way to use python inside maya. (in my experience).

Copy it to `<C>:/Program Files/Autodesk/Maya8.5/Python/ib/site-packages`, start maya and type:

```
>>>from pymel import *
```

This will import every thing we need. NOTE: this part is so important, do not forget to do this.

```
1: print <<hello world>> :
```

```
print 'Hello World!'
```

```
2: create a sphere:
```

```
sphere(n='PIM')
```

```
3: create a small window with a button that creates a sphere :
```

```
window(t = 'test', w =200)
columnLayout( adj = True )
button(l = 'Dance with me' , command ="sphere( n = 'PIM'")
showWindow()
```

```
4:create a small window with a button that creates 15 spheres next to each other with an input field for the distance :
```

```
def makePIMS():
    try:
        dist = float(textField('disNum', q=True , tx = True))
    except:
        dist = 1
    for i in range(15):
        sphere(n = 'PIM')
        move( dist *i , 0 , 0 )
```

```
window(t = 'test', w =200)
columnLayout( adj = True )
text(l='Enter the distance:')
textField('disNum')
button(l = 'Dance with me' , command ='makePIMS()')
showWindow()
```

Hope Useful.

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