Lecture 9

Useful External Packages

Python Imaging Library

http://www.pythonware.com/products/pil

```
>>> import Image
>>> a=Image.open("a.jpg")
>>> b=a.rotate(45)
>>> print b.size
>>> b=b.resize((256,256))
>>> b.save("a.gif")
```

matplotlib

http://matplotlib.sourceforge.net

http://numeric.scipy.org

```
>>> from pylab import *
>>> plot(range(30),[sin(x/4.0) for x in range(30)])
>>> show()
```

Tkinter GUIs

```
>>> import Tkinter
>>> w = Tkinter.Label(text = 'Hello World !')
>>> w.pack()
>>> w3=Tkinter.Entry()
>>> w3.pack()
>>> def doit():
>>>        w2["text"]=w3.get()
>>> w2=Tkinter.Button(text='GO',command=doit)
>>> w2.pack()
>>> w.mainloop()
```

How to Find Packages

http://www.python.org/pypi

http://www.vex.net/parnassus/

Homework

- Write a program that asks for a filename containing an image (any way you like), reads the corresponding image file, shrinks it by a factor of 4, and writes the rescaled image back to disk as 'test.jpg'