



When programming, it is sometimes useful to be able to read and write to and from external text files. The first example shows you how to use python to create a html web page.

The second program displays fading titles pulling data from an external text file.

```
# HTML Writer

# By Jaseman - 16th September 2012

import os

# Creates a file and opens it for writing (w)
f = open('/home/pi/test.html', 'w')

# Write lines of code into the file
# Note: avoid using " quotations, use instead '
f.write("<html>"+ "\n")
f.write("<head>"+ "\n")
f.write("<title>A Webpage Created by Python</title>"+ "\n")
f.write("</head>"+ "\n")
f.write("<body bgcolor='#ffffdd'>"+ "\n")
f.write("<font face='verdana' color='#000000'>"+ "\n")
f.write("<center>"+ "\n")
f.write("<h1>THE HEADING</h1><p>"+ "\n")
f.write("<hr>"+ "\n")
f.write("</center>"+ "\n")
f.write("<h3>A Subheading</h3><p>"+ "\n")
f.write("This is the text of the first paragraph.<p>"+ "\n")
f.write("<hr>"+ "\n")
f.write("<center>"+ "\n")
f.write("<font size='2'>"+ "\n")
f.write("<b><a href='mailto:editor@themagpi.com'>EMAIL</a></b><p>"+ "\n")
f.write("<b><a href='http:www.themagpi.com'>WEBSITE</a></b><p>"+ "\n")
f.write("</body>"+ "\n")
f.write("</html>")

# Close the file
f.close()

# Open the html file with Midori browser
os.system("midori /home/pi/test.html")
```

This program was written for Raspbian Wheezy, but could be adapted for Windows PC's by changing the file name path and the browser name in the os.system call.

PYTHON VERSION: 2.7.3rc2
PYGAME VERSION: 1.9.2a0
O.S.: Debian 7

TESTED!

First open Leafpad. Type in the text shown to the right and save the file as 'settings.txt' in the same location where your python code will be saved.

```
screen width:1024
screen height:600
window caption:Fading Titles
text size:100
title 1:Jaseman Presents...
title 2:A Python Pit Production
title 3:FADING TITLE DEMO
```

```
# Import Settings

# By Jaseman - 22nd September 2012

f = open('settings.txt', 'r') # Opens a text file to read settings from (r)
settings = [] # Create a variable array to hold the settings

for line in f: # Loop to get each line of the file into the array
    settings.append(line)

f.close() # Close the file

# This part splits each line at the colon (:) and defines variables
screenx=settings[0].split(':'); screeny=settings[1].split(':')
windowcaption=settings[2].split(':'); textsize=settings[3].split(':')
title1=settings[4].split(':'); title2=settings[5].split(':')
title3=settings[6].split(':')

import os,pygame; from pygame.locals import *; pygame.init()
os.environ['SDL_VIDEO_WINDOW_POS'] = 'center'

pygame.display.set_caption(windowcaption[1].strip())
screen=pygame.display.set_mode([int(screenx[1]),int(screeny[1])],0,32)
fadesurf=pygame.Surface((int(screenx[1]),int(screeny[1])))
titlesurf=pygame.Surface((int(screenx[1]),int(screeny[1])))
nexttitle=1;run=1

while run==1:
    # Print the next title
    font = pygame.font.Font(None,int(textsize[1]))
    if nexttitle==1:
        text = font.render(title1[1].strip(),True,(255,255,255))
    if nexttitle==2:
        text = font.render(title2[1].strip(),True,(255,255,255))
    if nexttitle==3:
        text = font.render(title3[1].strip(),True,(255,255,255))
    tgr=text.get_rect
    tp=tgr(centerx=screen.get_width()/2,centery=screen.get_height()/2)
    titlesurf.blit(text,tp)
    # Increase the transparency of fadesurf
    for t in range(255,0,-20):
        fadesurf.set_alpha(t); screen.blit(titlesurf,(0,0))
        screen.blit(fadesurf,(0,0)); pygame.display.update()
    # Decrease the transparency of fadesurf
    for t in range(0,256,20):
        fadesurf.set_alpha(t); screen.blit(titlesurf,(0,0))
        screen.blit(fadesurf,(0,0)); pygame.display.update()
    titlesurf.fill((0,0,0)); screen.blit(fadesurf,(0,0))
    pygame.display.update()
    nexttitle+=1
    if nexttitle>=4: nexttitle=1
```

Try changing the values in the 'settings.txt' file and then run the python program again. By this method you can change how the program runs without having to alter the python code itself.