Sketching Program

Computer Science Software Engineering

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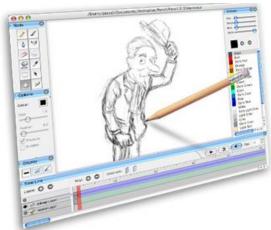
Learning Objectives

Students will be able to demonstrate mastery of …

1. Infinite loops in Python
2. Keyboard controls in Python

Procedure

1. Review basic turtle commands for use in your drawing program.

Basic Turtle Commands	
def()	creates a function call
fd()	moves turtle forward
bk()	moves the turtle backwards
lt()	turns the turtle left
rt()	turns the turtle right
color()	changes color of line
pu()	stops drawing
pd()	continues drawing
goto()	relocates the turtle to screen location
circle()	draws a circle
clear()	clears screen
reset()	resets screen

2. You can now use this basic code to create a rudimentary sketching program in Python.

1	import turtle
2	t=turtle.Turtle()
3	t.screen.title("My Sketching Program")
4	
5	def ahead():
6	t.fd(30)
7	def back():
8	t.bk(30)
9	def left():
10	t.lt(30)
11	def right():
12	t.rt(30)
13	
14	t.screen.onkey(ahead,"Up")
15	t.screen.onkey(back,"Down")
16	t.screen.onkey(left,"Left")
17	t.screen.onkey(right,"Right")
18	
19	t.screen.listen()
20	turtle.mainloop()

Assignment

Modify the code to create a more complex drawing program that meets the following standard:

1. Lifts and lowers the pen
2. Erases
3. Changes pen color

To exceed the standard (add one or more of the following):

1. Fill shapes with specified color
2. Erase color within shapes
3. Uses mouse controls