```python
#Procedure copy1
x = 0
z = 0
y = 0
if x == 0:
z=1
if z == 0:
y=1
```

Listing 1: Python version of copy1 example in [?]. goal: information flow from x to y

```python
# Procedure copy2
x = 0
z = 1
y = -1
while z == 1:
y = y + 1
if y == 0:
z = x
else:
z = 0
```

Listing 2: Python version of copy2 example in [?]. goal: information flow from x to y

```python
#copy3 synchronization flow
import thread
import time
import threading

#x=7
#y=6
#def copy3(x,y):     # copy x to y
s0 = threading.Event()
s1 = threading.Event()

def thread1():
global x
if x==0:
s0.set()
else:
s1.set()

def thread2():
global y
s0.wait()
s0.clear()
y=1
s1.set()

def thread3():
global y
s1.wait()
s1.clear()
y=0
s0.set()
```

```
32
33 try:
34 thread.start_new_thread(thread1,())
35 thread.start_new_thread(thread2,())
36 thread.start_new_thread(thread3,())
37 except:
38 print "Error: unable to start thread"
```

Listing 3: Python version of copy3 example in [?]. goal: information flow from x to y

```
1 #Procedure copy4
2 import thread
3 import time
4 import threading
5
6 def thread1():
7 global x
8 global e0
9 global e1
10 if x==0:
11 e0 = False
12 else:
13 e1 = False
14
15 def thread2():
16 global e0
17 global e1
18 global y
19 while e0
20 pass
21 y = 1
22 e1 = False
23
24 def thread3():
25 global e1
26 global e0
27 global y
28 while e1:
29 pass
30 y = 0
31 e0 = False
32
33 thread.start_new_thread(thread1,())
34 thread.start_new_thread(thread2,())
35 thread.start_new_thread(thread3,())
```

Listing 4: Python version of copy4 example in [?]. goal: information flow from x to y

```
1 #Procedure copy5
2 y = 0
3 while x==0 :
4 pass
5 y = 1
```

Listing 5: Python version of copy5 example in [?]. goal: information flow from x to y

```
#copy6
z = 0
ssum = 0
y = 0
while z == 0 :
  ssum = ssum + x
  y = y + 1
```

Listing 6: Python version of copy6 example in [**?**]. goal: information flow from x to y

```
def fun(x, y, z):
  a = x
  y = a
  a = z
fun(x, y, z)
```

Listing 7: Python version of dynamic label example in [**?**]. goal: information flow from x to y