

Soldier

Subprocess with Style!

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LIGHTNING TALK

Subprocess Module

- spawn new processes
- connect to their I/P,O/P,error pipes
- obtain their return codes

Subprocess Module

Goal : intended to replace the following

- `os.system()`
- `os.spawn*()`
- `os.popen*()`
- `popen2.*()`
- `commands.*()`

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Goal:

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Goal: To replace **subprocess** module!

**Lets See What
Subprocess does**

**Lets See What
Subprocess does**

AND HOW IT DOES IT!

Subprocess module

Examples

To run terminal commands:

```
# Run command line instruction  
subprocess.call(['ls -la'])
```


Subprocess module

Examples

To run terminal commands:

Run command line instruction

```
subprocess.call(['ls -la'])
```

Check output of the command

```
subprocess.check_output(['ls', 'la'])
```

Subprocess module

Examples

To run terminal commands:

```
# Run command line instruction  
subprocess.call(['ls -la'])
```

```
# Check output of the command  
subprocess.check_output(['ls', 'la'])
```

```
# To Status code of the command  
subprocess.check_call('ls')
```

Subprocess module

Examples

Running a Process

```
# Popen a process  
process = subprocess.Popen(['firefox'], shell=True,  
                             stdin=subprocess.PIPE,  
                             stdout=subprocess.PIPE,  
                             stderr=subprocess.PIPE)
```

Subprocess module

Examples

Killing a Process

```
# Use OS module  
import os  
os.kill(process.pid)
```

Subprocess module

Examples

Running process using sudo

```
# You have to type the password during Runtime  
p = subprocess.Popen(['sudo', 'service', 'nginx', 'start'],  
                      stdin=subprocess.PIPE,  
                      stdout=subprocess.PIPE,  
                      stderr=subprocess.PIPE)
```

Subprocess module

Examples

Timeout a process

No such functionality exists!

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TO THE RESCUE!



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TO THE RESCUE!

Run command, Check output, Get Status Code

```
# Run Command
```

```
>> current_path = soldier.run('pwd')
```

```
# Get output
```

```
>> print(current_path.output)  
/home/pythonista
```

```
# Get Status Code
```

```
>> print(current_path.status_code)
```

```
0
```


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TO THE RESCUE!

Run process, Get process ID, Kill process

```
# Run firefox process
```

```
>> firefox_proc = soldier.run('firefox', background=True)
```

```
# Get pid of firefox process
```

```
>> print(firefox_proc.pid)
```

```
18673
```

```
# Kill firefox
```

```
>> firefox_proc.kill()
```

```
>> firefox_proc.is_alive()
```

```
>> False
```

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TO THE RESCUE!

Run a sudo command, set Timeouts

```
>> soldier.run('service nginx start', sudo='my_password')
```

```
# Handle timeouts
```

```
>> try
```

```
    soldier.run('./my_script.py', timeout=5,  
kill_on_timeout=False)
```

```
    except soldier.ProcessTimeoutError:
```

```
        print("Your script timed out")
```

```
Your script timed out
```

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TO THE RESCUE!

Set Timeouts

```
# Run without timeouts
```

```
>> soldier.run('./infinite_loop_script.py',  
timeout=10, kill_on_timeout=True)
```

```
# Handle timeouts
```

```
>> try  
    soldier.run('./my_script.py', timeout=5,  
kill_on_timeout=False)  
except soldier.ProcessTimeoutError:  
    print("Your script timed out")
```

```
Your script timed out
```

Soldier

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 <https://github.com/yashmehrotra/soldier>

 <http://soldier.readthedocs.io/en/latest/usage/>

Thank You!



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