

SimPy

Simulation in Python

Stefan Scherfke

PyCon DE 2011



```
from SimPy.Simulation import Simulation, Process, hold
```

```
class PyConVisitor(Process):
```

```
    def __init__(self, sim, name):
```

```
        super(PyConVisitor, self).__init__(sim=sim, name=name)
```

```
        self.knowledge = 0
```

```
        self.hunger = 0
```

```
    def run(self):
```

```
        # ...
```

```
def run(self):
    while True:
        # Visit talks
        for i in range(3):
            self.knowledge += randint(0, 3) / (1 + self.hunger)
            self.hunger += randint(1, 4)
            yield hold, self, 30

        # Go to buffet
        food = randint(3, 12)
        self.hunger -= min(food, self.hunger)
        yield hold, self, 15
```

```
sim = Simulation()
visitors = [PyConVisitor(sim, 'Visitor %s' % i)
             for i in range(5)]
for visitor in visitors:
    sim.activate(visitor, visitor.run())

while sim.peek() < 220:
    sim.step()
```

Code: pastebin.com/A4yA4Ybg

PyPI: SimPy

Stefan Scherfke:    Buffet