

# Multicast Cloud - Event Channel

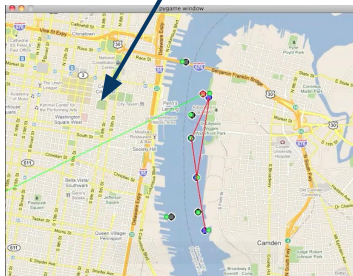
```
1 import time
2 import math
3 from shoy.entity import Entity
4 from shoy.events.sender import RadarEvent
5 from shoy.util.goio import *
6
7 class RadarSensor(Entity):
8     def __init__(self, uid, trans_power, trans_freq, gain, aperture, prmp_fact, interval):
9         Entity.__init__(self, uid)
10         self.trans_power = trans_power
11         self.trans_freq = trans_freq
12         self_gain = gain
13         self_aperture = aperture
14         self_prmp_fact = prmp_fact
15         self_interval = interval
16         self_state = 0
17
18     def get_state(self):
19         return self_state.copy()
20
21     def get_power(self, distance, src_power):
22         db = 1.8 / 1000.0 # 1 meter
23         ref_loss = 48.2/27 # loss @ 1 meter
24         l = 3.0 # path loss exponent
25         flat_fade_factor = 0
26         tx_power_dbm = 10 * math.log(src_power, 10)
27         if distance <= db:
28             return tx_power_dbm - ref_loss
29         loss = -ref_loss - 10 * l * math.log(distance / db, 10) + flat_fade_factor
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```

Head Node

Distributed Nodes

Location, Radar &  
Link Events



Human-Operator Interface

Human Operator  
Task Event

Location & Link  
Events



3D Visualizer