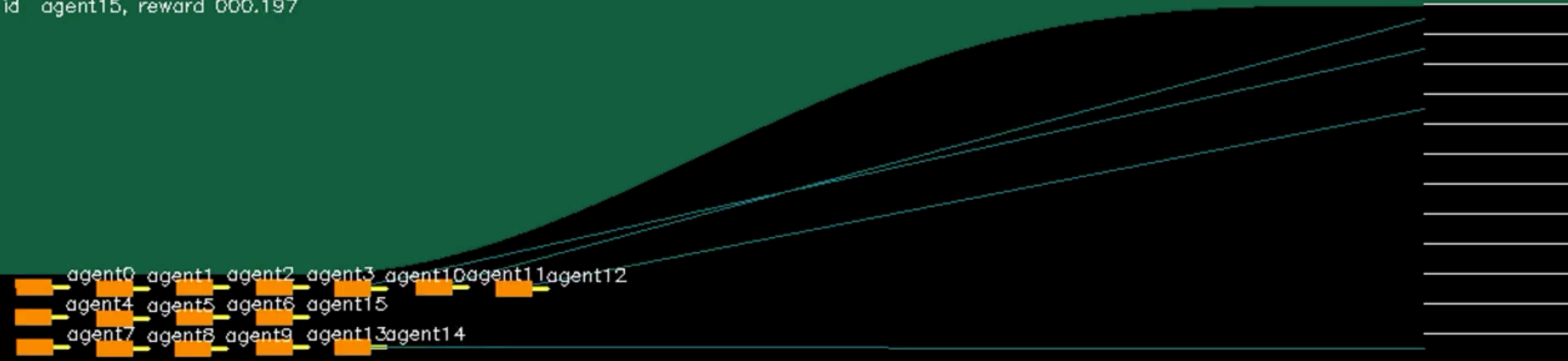




Emergence of “intelligent behaviors”

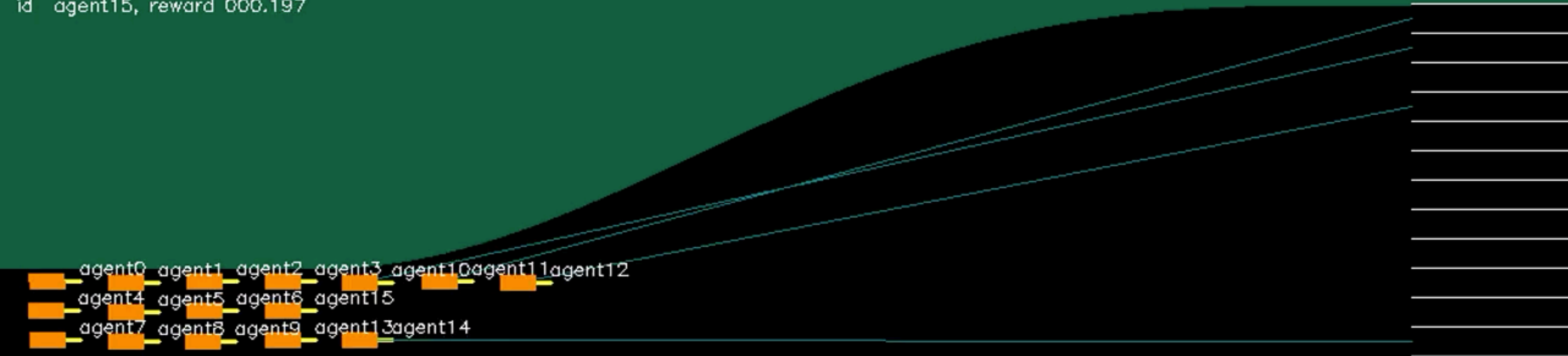
id agent0, reward 000.595
id agent1, reward 000.546
id agent2, reward 000.363
id agent3, reward 000.240
id agent4, reward 000.598
id agent5, reward 000.046
id agent6, reward 000.438
id agent7, reward 000.560
id agent8, reward 000.577
id agent9, reward 000.504
id agent10, reward 000.474
id agent11, reward 000.121
id agent12, reward 000.110
id agent13, reward 000.580
id agent14, reward 000.567
id agent15, reward 000.197



PPO-0409-2 10-iters

- At 10th iteration
- Randomly drive.
- With diversified directions.

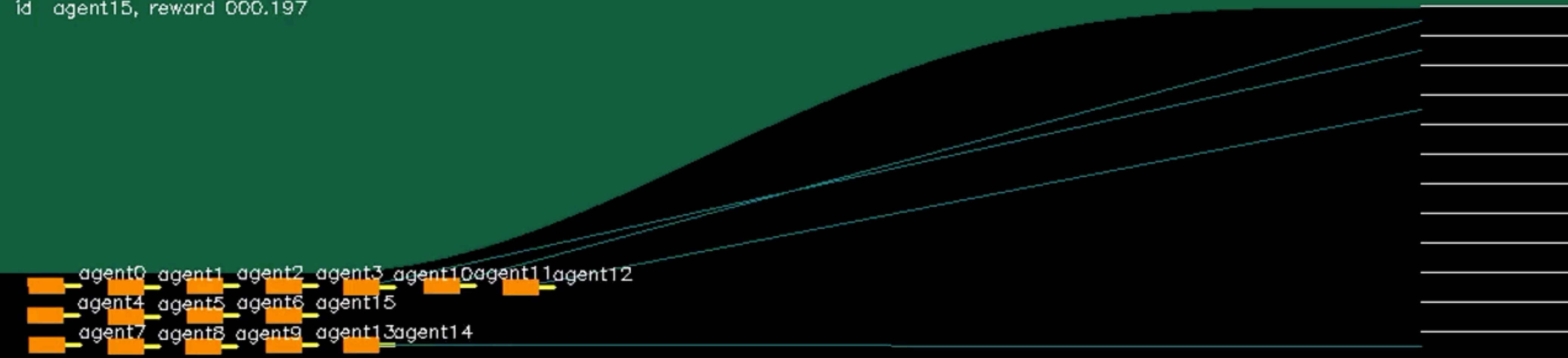
```
id agent0, reward 000.595
id agent1, reward 000.546
id agent2, reward 000.363
id agent3, reward 000.240
id agent4, reward 000.598
id agent5, reward 000.046
id agent6, reward 000.438
id agent7, reward 000.560
id agent8, reward 000.577
id agent9, reward 000.504
id agent10, reward 000.474
id agent11, reward 000.121
id agent12, reward 000.110
id agent13, reward 000.580
id agent14, reward 000.567
id agent15, reward 000.197
```



PPO-0409-2 10-iters

Emergence of “intelligent behaviors”

```
id  agent0, reward 000.595
id  agent1, reward 000.546
id  agent2, reward 000.363
id  agent3, reward 000.240
id  agent4, reward 000.598
id  agent5, reward 000.046
id  agent6, reward 000.438
id  agent7, reward 000.560
id  agent8, reward 000.577
id  agent9, reward 000.504
id  agent10, reward 000.474
id  agent11, reward 000.121
id  agent12, reward 000.110
id  agent13, reward 000.580
id  agent14, reward 000.567
id  agent15, reward 000.197
```

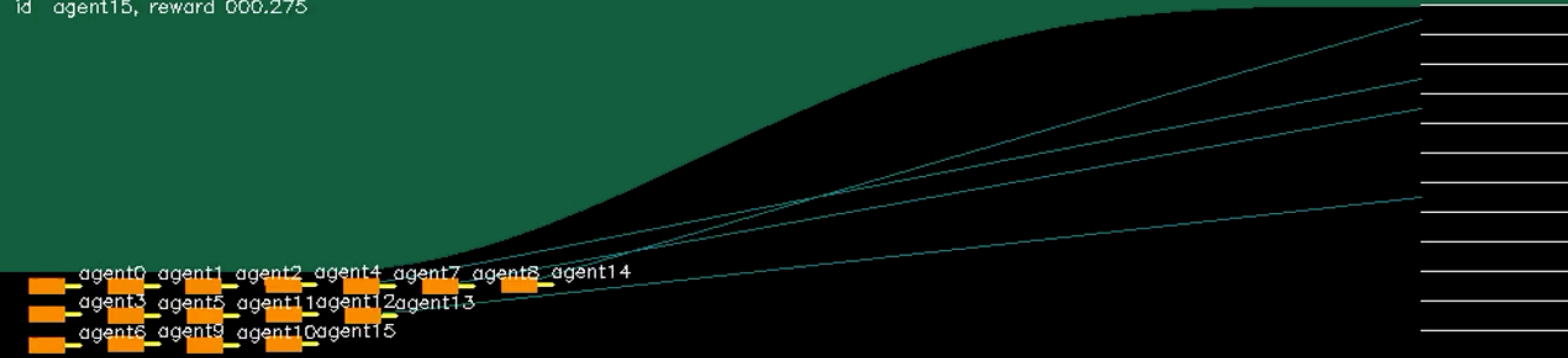


PPO-0409-2 10-iters

- At 10th iteration
- Randomly drive.
- With diversified directions.

Emergence of “intelligent behaviors”

```
id  agent0, reward 000.047
id  agent1, reward 000.235
id  agent2, reward 000.479
id  agent3, reward 000.357
id  agent4, reward 000.604
id  agent5, reward 000.067
id  agent6, reward 000.398
id  agent7, reward 000.538
id  agent8, reward 000.528
id  agent9, reward 000.503
id  agent10, reward 000.535
id  agent11, reward 000.462
id  agent12, reward 000.044
id  agent13, reward 000.375
id  agent14, reward 000.440
id  agent15, reward 000.275
```



PPO-0409-2 20-iters

- At 20th iteration
- Randomly drive.
- With slightly constrained directions.