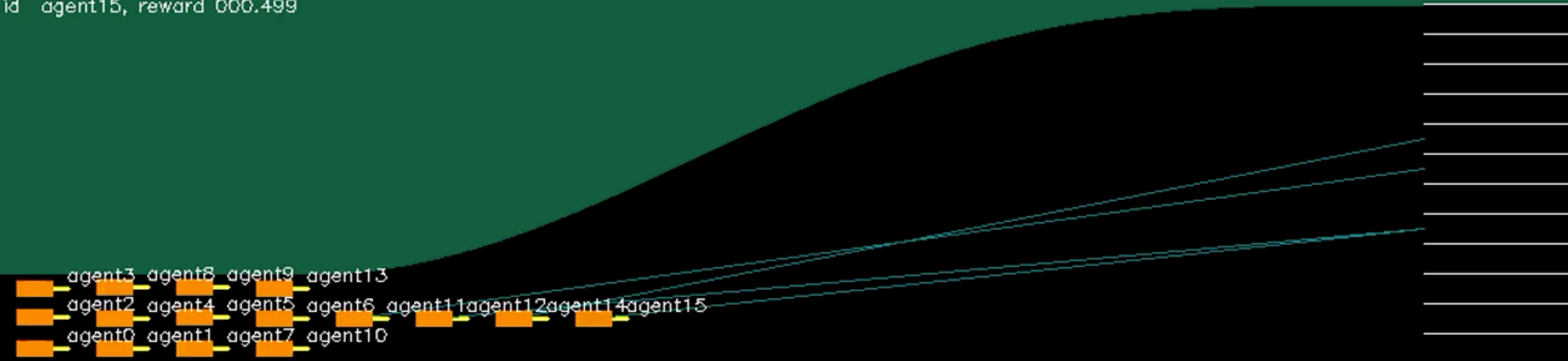




Emergence of “intelligent behaviors”

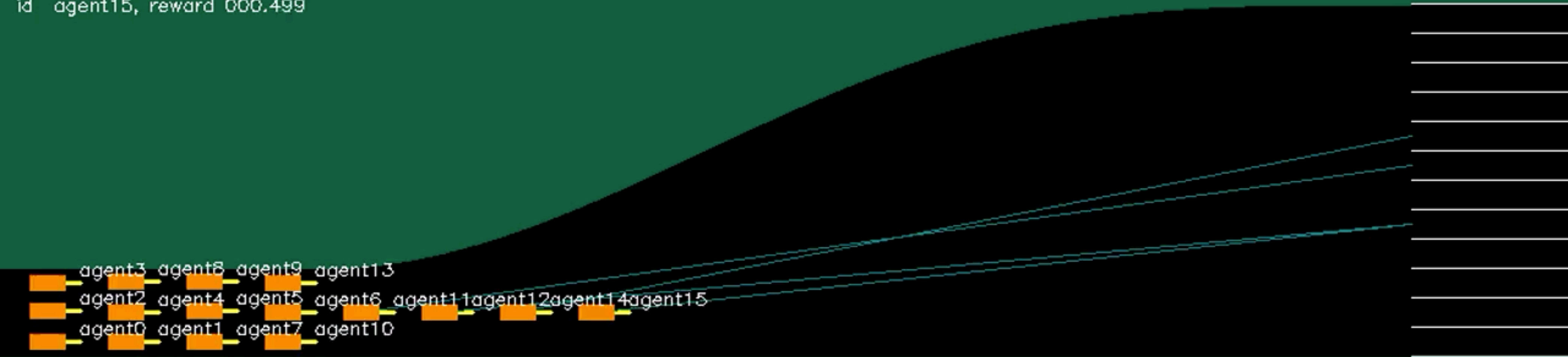
id agent0, reward 000.251
id agent1, reward 000.555
id agent2, reward 000.574
id agent3, reward 000.130
id agent4, reward 000.383
id agent5, reward 000.281
id agent6, reward 000.372
id agent7, reward 000.538
id agent8, reward 000.476
id agent9, reward 000.245
id agent10, reward 000.531
id agent11, reward 000.557
id agent12, reward 000.380
id agent13, reward 000.459
id agent14, reward 000.386
id agent15, reward 000.499



PPO-0409-2 50-iters

- At 40th iteration
- Speed control is imperfect.

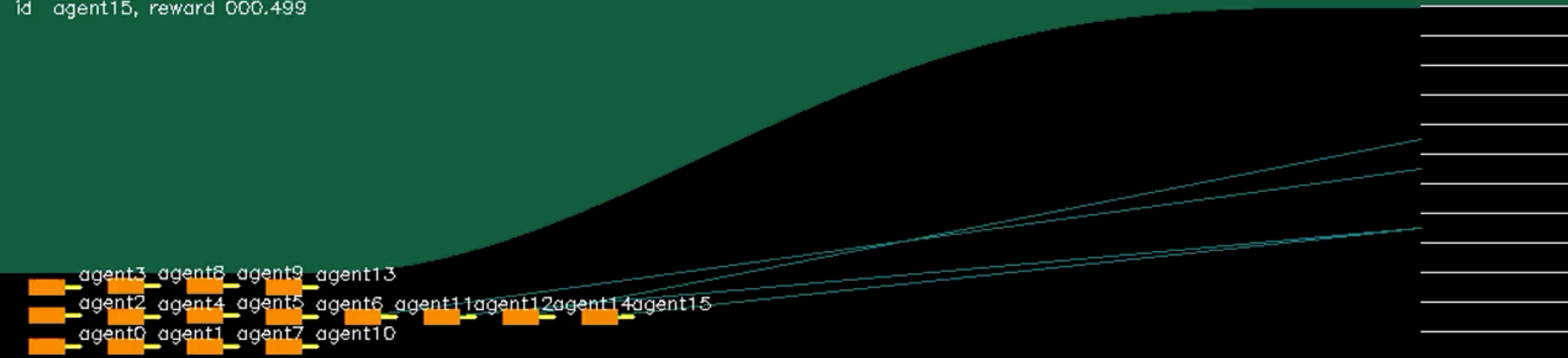
```
id agent0, reward 000.251
id agent1, reward 000.555
id agent2, reward 000.574
id agent3, reward 000.130
id agent4, reward 000.383
id agent5, reward 000.281
id agent6, reward 000.372
id agent7, reward 000.538
id agent8, reward 000.476
id agent9, reward 000.245
id agent10, reward 000.531
id agent11, reward 000.557
id agent12, reward 000.380
id agent13, reward 000.459
id agent14, reward 000.386
id agent15, reward 000.499
```



PPO-0409-2 50-iters

Emergence of “intelligent behaviors”

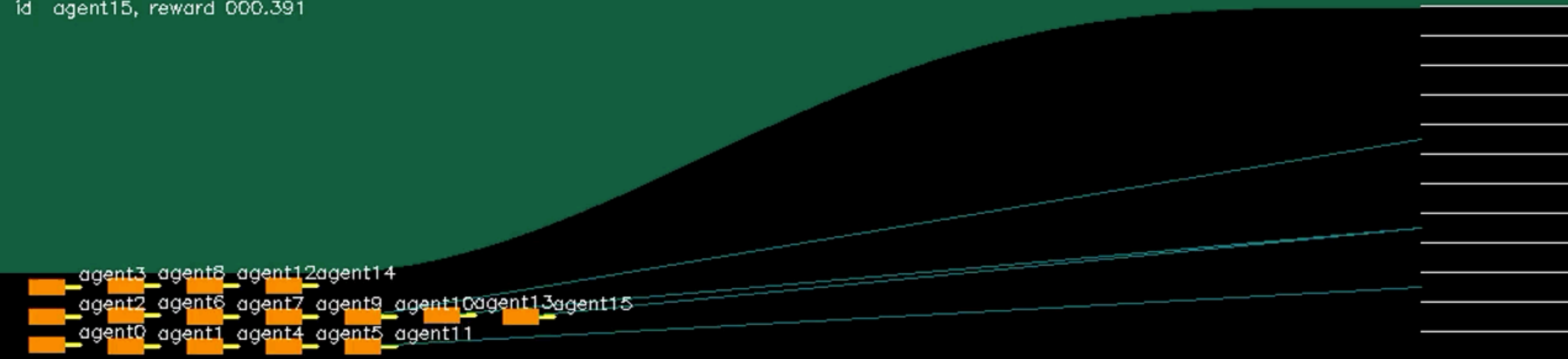
```
id  agent0, reward 000.251
id  agent1, reward 000.555
id  agent2, reward 000.574
id  agent3, reward 000.130
id  agent4, reward 000.383
id  agent5, reward 000.281
id  agent6, reward 000.372
id  agent7, reward 000.538
id  agent8, reward 000.476
id  agent9, reward 000.245
id  agent10, reward 000.531
id  agent11, reward 000.557
id  agent12, reward 000.380
id  agent13, reward 000.459
id  agent14, reward 000.386
id  agent15, reward 000.499
```



- At 40th iteration
- Speed control is imperfect.

Emergence of “intelligent behaviors”

```
id  agent0, reward 000.328
id  agent1, reward 000.315
id  agent2, reward 000.319
id  agent3, reward 000.250
id  agent4, reward 000.398
id  agent5, reward 000.475
id  agent6, reward 000.408
id  agent7, reward 000.330
id  agent8, reward 000.216
id  agent9, reward 000.371
id  agent10, reward 000.362
id  agent11, reward 000.475
id  agent12, reward 000.330
id  agent13, reward 000.495
id  agent14, reward 000.464
id  agent15, reward 000.391
```



- At 100th iteration
- Better speed control.

PPO-0409-2 100-iters