

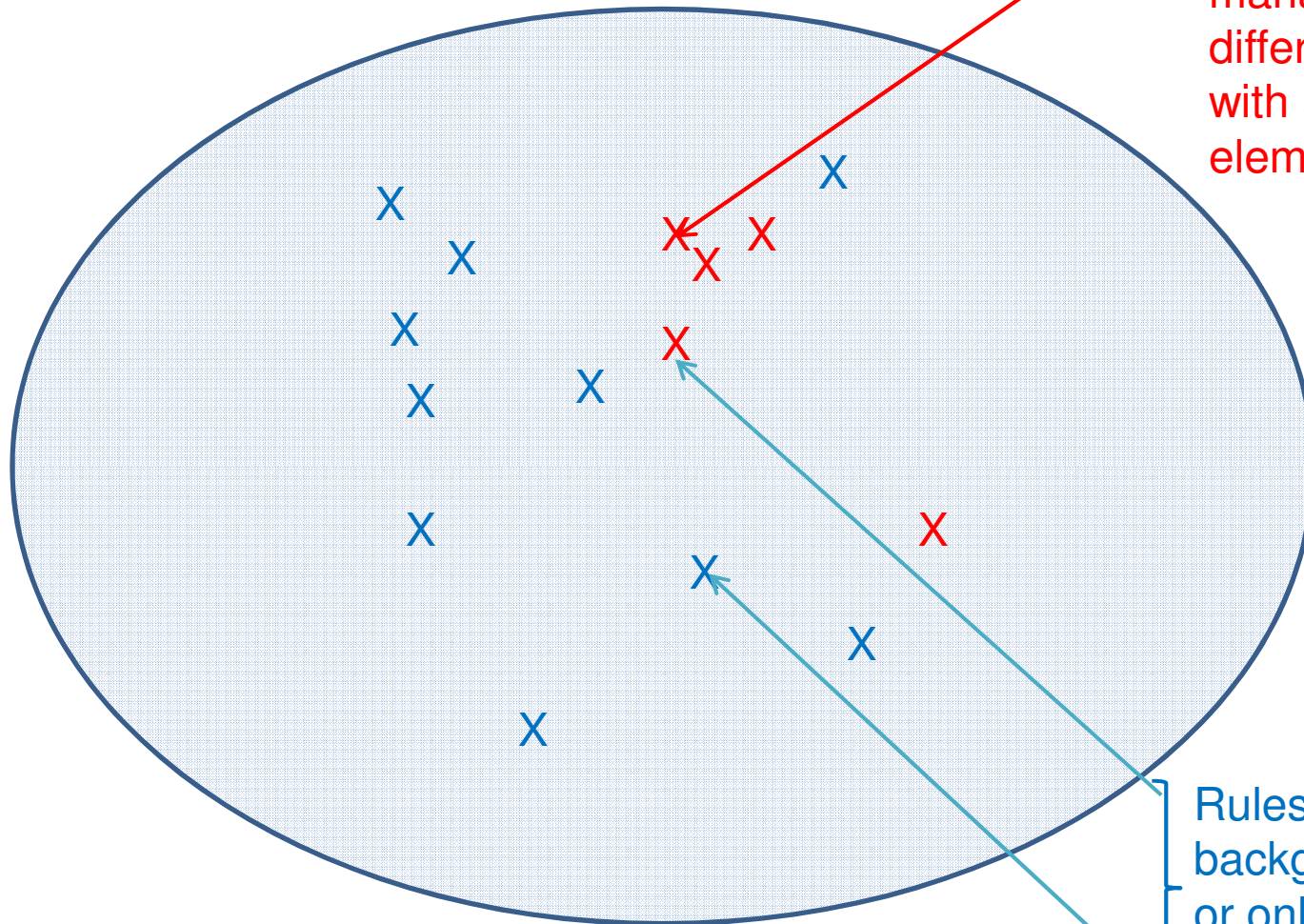
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## 1. Agents and schedule

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# Bland\* and tasty# agents



Rules operating “in the foreground”, explicitly managed via a script (with different sets of agents, with a different number of elements)

Rules operating “in the background” for all the agents, or only for the blue ones (to be decided)

*\*Bland = simple, unspecific, basic, insipid, ...*

*#Tasty = specialized, with given skills, discretionary, ...*

Empty schedule (no tasty agents, only bland ones, operating with the background rules)

	A	B	C	D	E
1	#	1			
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

How many 'bland' agents? 3

X Size of the world? 10

Y Size of the world? 10

How many cycles? (0 = exit) 5

World state number 0 has been created.

Agent number 0 has been created at 7 , 1

Agent number 1 has been created at 3 , 2

Agent number 2 has been created at 7 , 0

Creation of the bland agents

Time = 1

agent # 0 moving

agent # 2 moving

agent # 1 moving

bland agents acting with the background rules

Time = 1 ask all agents to report position

Agent number 0 moved to X = 0.0131032296035 Y = 3.0131032296

Agent number 1 moved to X = 8.9868967704 Y = 0.0

Agent number 2 moved to X = 0.986896770397 Y = 3.9868967704

All the agents reporting their position (background operation)

Time = 2

agent # 0 moving

agent # 1 moving

agent # 2 moving

Time = 2 ask first agent to report position

Agent number 0 moved to X = 6.18205342701 Y = 6.8441530322

The agent # 0 reporting ... (b. op.)<sub>4</sub>

Time = 3

agent # 1 moving

agent # 2 moving

agent # 0 moving

Time = 3 ask first agent to report position

Agent number 0 moved to X = 2.76682561579 Y = 6.8441530322

Time = 4

agent # 0 moving

agent # 2 moving

agent # 1 moving

agent 2 made a big jump

Time = 4 ask all agents to report position

Agent number 0 moved to X = 2.76682561579 Y = 2.32334710187

Agent number 1 moved to X = 2.81794657299 Y = 6.16895019741

Agent number 2 moved to X = 2.63504103748 Y = 9.46609084007

Time = 5

agent # 2 moving

agent # 0 moving

agent # 1 moving

agent 2 made a big jump

Time = 5 ask first agent to report position

Agent number 0 moved to X = 2.76682561579 Y = 2.32334710187

Time = 6



```
How many 'bland' agents? 3
X Size of the world? 10
Y Size of the world? 10
How many cycles? (0 = exit) 5
World state number 0 has been created.
Agent number 0 has been created at 7 , 1
Agent number 1 has been created at 3 , 2
Agent number 2 has been created at 7 , 0
```

```
Time = 1
```

```
agent # 1 moving
```

```
agent # 2 moving
```

```
agent # 0 moving
```

```
I'm agent 1: nothing to eat here!
```

```
I'm agent 2: nothing to eat here!
```

```
I'm agent 0: nothing to eat here!
```

```
I'm agent 0: it's not time to dance!
```

```
I'm agent 1: it's not time to dance!
```

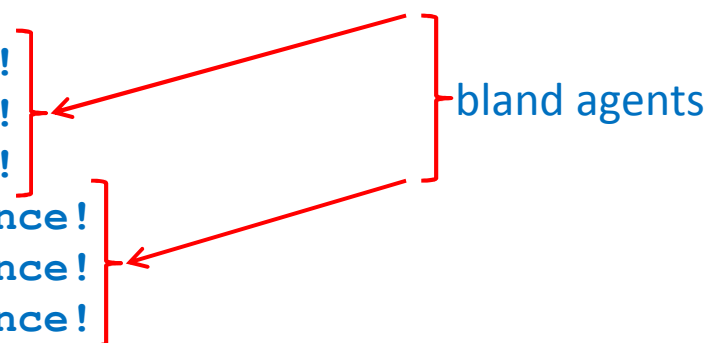
```
I'm agent 2: it's not time to dance!
```

```
Time = 1 ask all agents to report position
```

```
Agent number 0 moved to X = 0.972690201302 Y = 7.0273097987
```

```
Agent number 1 moved to X = 6.9726902013 Y = 2.0
```

```
Agent number 2 moved to X = 7.0 Y = 6.0273097987
```



```
Time = 2
agent # 1 moving
agent # 2 moving
agent # 0 moving
Time = 2 ask first agent to report position
Agent number 0 moved to X = 3.51562472467 Y = 7.0273097987
Time = 3
agent # 1 moving
agent # 2 moving
agent # 0 moving
Time = 3 ask first agent to report position
Agent number 0 moved to X = 3.51562472467 Y = 7.0273097987
Time = 4
agent # 0 moving
agent # 2 moving
agent # 1 moving
I'm agent 1: it's not time to dance!
Time = 4 ask all agents to report position
Agent number 0 moved to X = 3.51562472467 Y = 0.992771148789
Agent number 1 moved to X = 3.43870920817 Y = 1.00895353023
Agent number 2 moved to X = 6.00895353023 Y = 3.48437527533
```

```
Time = 5
agent # 0 moving
agent # 1 moving
agent # 2 moving
I'm agent 0: nothing to eat here!
I'm agent 1: nothing to eat here!
I'm agent 2: nothing to eat here!
I'm agent 1: it's not time to dance!
I'm agent 0: it's not time to dance!
I'm agent 2: it's not time to dance!
Time = 5 ask first agent to report position
Agent number 0 moved to X = 3.74036626026 Y = 0.992771148789
Time = 6
```

bland agents

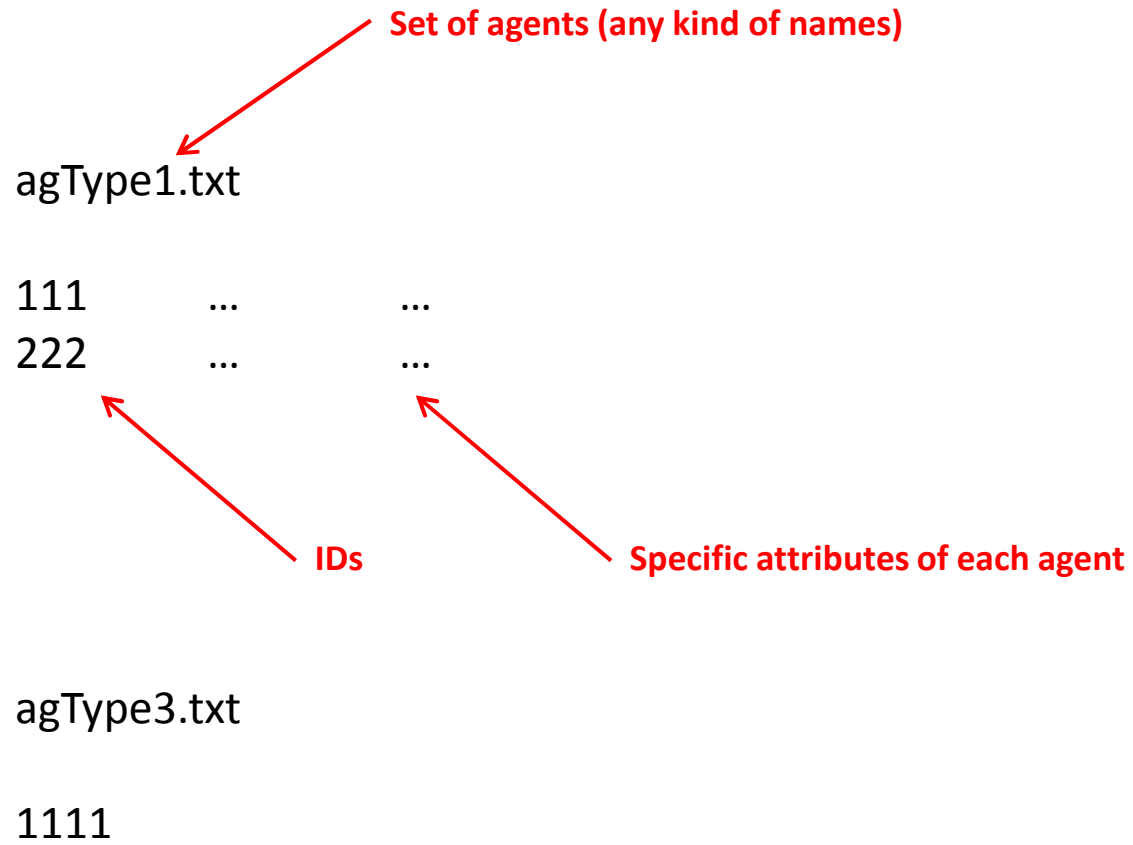
# Schedule driving bland agents (with tasty agents)

Agent -> all agents; Agent0 -> background agents

1	#		1		standard (internal) actions, like move, are applied to all agents
2	Agent0	eat			0 means internal agents
3	Agent0	dance			
4	#		2		
5	#		4		
6	Agent		0.5	dance	Agent without specification means all
7	Agent3	eat			3 means agents of type 3
8	WorldState		0.5	setGeneralMovingProb	
9	#		5		comments here or in successive columns
10	Agent	eat			
11	Agent	dance			
12	#		30		
13	Agent1	dance			1 means agents of type 1
14	#		31		
15	Agent1		0.5	dance	
16					

Non empty sets, in this case

Effects on bland (blue) agents and tasty (red) ones



```
How many 'bland' agents? 3
X Size of the world? 3
Y Size of the world? 3
How many cycles? (0 = exit) 32
World state number 0 has been created.
Agent number 0 has been created at 0 , 2
Agent number 1 has been created at 1 , 0
Agent number 2 has been created at 0 , 2
```

```
creating agType1 # 111
Agent number 111 has been created at 1 , 1
creating agType1 # 222
Agent number 222 has been created at 2 , 0
creating agType3 # 1111
Agent number 1111 has been created at 2 , 2
```

} tasty agents

```
Time = 1
agent # 2 moving
agent # 222 moving
agent # 0 moving
agent # 111 moving
agent # 1 moving
agent # 1111 moving
```

} bland and tasty agents

```
I'm agent 2: nothing to eat here!
I'm agent 1: nothing to eat here!
I'm agent 0: nothing to eat here!
I'm agent 1: it's not time to dance!
I'm agent 0: it's not time to dance!
I'm agent 2: it's not time to dance!
Time = 1 ask all agents to report position
Agent number 0 moved to X = 0.924426630933 Y = 2.92442663093
Agent number 1 moved to X = 1.0 Y = 0.924426630933
Agent number 2 moved to X = 0.924426630933 Y = 2.92442663093
Agent number 111 moved to X = 1.92442663093 Y =
1.92442663093
Agent number 222 moved to X = 1.07557336907 Y =
2.07557336907
Agent number 1111 moved to X = 2.92442663093 Y = 2.0
Time = 2
agent # 1 moving
agent # 111 moving
agent # 222 moving
agent # 0 moving
agent # 1111 moving
agent # 2 moving
```

```

Time = 5
agent # 222 moving
agent # 1 moving
I'm agent 111: nothing to eat here!
I'm agent 2: nothing to eat here!
I'm agent 111: nothing to eat here!
I'm agent 0: nothing to eat here!
I'm agent 222: nothing to eat here!
I'm agent 1: nothing to eat here!
I'm agent 0: it's not time to dance!
I'm agent 222: it's not time to dance!
I'm agent 111: it's not time to dance!
I'm agent 2: it's not time to dance!
I'm agent 111: it's not time to dance!
I'm agent 1: it's not time to dance!

```

```

Time =31
agent # 1 moving
agent # 111 moving
agent # 0 moving
agent # 2 moving
I'm agent 222: it's not time to dance!
Time = 31 ask all agents to report position

```

#	31	
Agent1	0.5	dance