Professor: Sherif Khattab

Course: Data Communication and Computer Networks

Assignment 3: Distance Vector Routing Protocol

Name: Jie Zhou

Notes:

1. For clarity, each method call start with a line. Follow the line is the event detail.
2. Each Constuctor event will print out information of the method being called, the distance table after initialization, and print messages about the packets the entity sent out to its neighbors after initialization.
3. Each update event will print out information about the packet sender, packet receiver, distance table of the current entity, distance table before & after update, changes in distance vector after recalculation and printing messages when packets sent out to other neighbors.
4. Each LinkChange event will print out information of the cost to current entity’s direct neighbor, and the change of the link cost, the direct cost after the link cost change, distance table of the current entity, change of distance vector of current entity after recalculation, and print messages about the packets the entity send out to its direct neighbors.
5. The Final Distance Table of each entity is marked in GREEN.
6. The first & second link cost change is marked in YELLOW.

**Sample Output:**

Jies-MacBook-Pro-2:code jay$ java Project

Network Simulator v1.0

Enter trace level (>= 0): [0] 2

Will the link change (1 = Yes, 0 = No): [0] 1

Enter random seed: [random] 1

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Entity0() is called at time: 0.0

Initializing the distance table:

via

D0 | 1 2 3

----+------------

1| 999 999 999

2| 999 999 999

3| 999 999 999

Sending packet: [0, 1, 3, 7] to Entity0's direct Neighbor: Entity1

Sending packet: [0, 1, 3, 7] to Entity0's direct Neighbor: Entity2

Sending packet: [0, 1, 3, 7] to Entity0's direct Neighbor: Entity3

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Entity1() is called at time: 0.0

Initializing the distance table:

via

D1 | 0 2

----+--------

0| 999 999

2| 999 999

3| 999 999

Sending packet: [1, 0, 1, 999] to Entity1's direct Neighbor: Entity0

Sending packet: [1, 0, 1, 999] to Entity1's direct Neighbor: Entity2

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Entity2() is called at time： 0.0

Initializing the distance table:

via

D2 | 0 1 3

----+------------

0| 999 999 999

1| 999 999 999

3| 999 999 999

Sending packet: [3, 1, 0, 2] to Entity3's direct Neighbor: Entity0

Sending packet: [3, 1, 0, 2] to Entity3's direct Neighbor: Entity1

Sending packet: [3, 1, 0, 2] to Entity3's direct Neighbor: Entity3

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Entity3() is called at time: 0.0

Initializing the distance table:

via

D3 | 0 2

----+--------

0| 999 999

1| 999 999

2| 999 999

Sending packet: [7, 999, 2, 0] to Entity3's direct Neighbor: Entity0

Sending packet: [7, 999, 2, 0] to Entity3's direct Neighbor: Entity2

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main(): event received. t=1.0550546403918517, node=0

src=2, dest=0, contents=[3, 1, 0, 2]

Entity0 update() is called at time: 1.0550546403918517

Packet received at: Entity0

Sender: Entity2

Packet Content: [3, 1, 0, 2]

Distance Vector for Entity0: [0, 1, 3, 7]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 999 999 999

2| 999 999 999

3| 999 999 999

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 999 1 999

2| 999 0 999

3| 999 2 999

After recalculation, Entity0's Distance Vector has Changed:

Distance to Entity 0: 0 -----> 0

Distance to Entity 1: 1 -----> 1

Distance to Entity 2: 3 -----> 3

Distance to Entity 3: 7 -----> 5

Sending packet: [0, 1, 3, 5] to Entity0's direct Neighbor: Entity1

Sending packet: [0, 1, 3, 5] to Entity0's direct Neighbor: Entity2

Sending packet: [0, 1, 3, 5] to Entity0's direct Neighbor: Entity3

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main(): event received. t=2.8694335717874537, node=3

src=0, dest=3, contents=[0, 1, 3, 7]

Entity3 update() is called at time: 2.8694335717874537

Packet received at: Entity3

Sender: Entity0

Packet Content: [0, 1, 3, 7]

Distance Vector for Entity3: [7, 999, 2, 0]

Distance Table at Entity3 before update:

via

D3 | 0 2

----+--------

0| 999 999

1| 999 999

2| 999 999

Distance Table at Entity3 after update:

via

D3 | 0 2

----+--------

0| 0 999

1| 1 999

2| 3 999

After recalculation, Entity3's Distance Table has Changed:

Distance to Entity 0: 7 -----> 7

Distance to Entity 1: 999 -----> 8

Distance to Entity 2: 2 -----> 2

Distance to Entity 3: 0 -----> 0

Sending packet: [7, 8, 2, 0] to Entity3's direct Neighbor: Entity0

Sending packet: [7, 8, 2, 0] to Entity3's direct Neighbor: Entity2

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main(): event received. t=3.994453503635601, node=0

src=1, dest=0, contents=[1, 0, 1, 999]

Entity0 update() is called at time: 3.994453503635601

Packet received at: Entity0

Sender: Entity1

Packet Content: [1, 0, 1, 999]

Distance Vector for Entity0: [0, 1, 3, 5]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 999 1 999

2| 999 0 999

3| 999 2 999

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 999

2| 1 0 999

3| 999 2 999

After recalculation, Entity0's Distance Vector has Changed:

Distance to Entity 0: 0 -----> 0

Distance to Entity 1: 1 -----> 1

Distance to Entity 2: 3 -----> 2

Distance to Entity 3: 5 -----> 5

Sending packet: [0, 1, 2, 5] to Entity0's direct Neighbor: Entity1

Sending packet: [0, 1, 2, 5] to Entity0's direct Neighbor: Entity2

Sending packet: [0, 1, 2, 5] to Entity0's direct Neighbor: Entity3

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main(): event received. t=4.690727303429815, node=2

src=0, dest=2, contents=[0, 1, 3, 7]

Entity2 update() is called at time: 4.690727303429815

Packet received at: Entity2

Sender: Entity0

Packet Content: [0, 1, 3, 7]

Distance Vector for Entity2: [3, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 999 999 999

1| 999 999 999

3| 999 999 999

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 999 999

1| 1 999 999

3| 7 999 999

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=6.515946859823785, node=3

src=0, dest=3, contents=[0, 1, 3, 5]

Entity3 update() is called at time: 6.515946859823785

Packet received at: Entity3

Sender: Entity0

Packet Content: [0, 1, 3, 5]

Distance Vector for Entity3: [7, 8, 2, 0]

Distance Table at Entity3 before update:

via

D3 | 0 2

----+--------

0| 0 999

1| 1 999

2| 3 999

Distance Table at Entity3 after update:

via

D3 | 0 2

----+--------

0| 0 999

1| 1 999

2| 3 999

After recalculation, No change to Entity3's Distance Table

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main(): event received. t=7.577903716329618, node=1

src=0, dest=1, contents=[0, 1, 3, 7]

Entity1 update() is called at time: 7.577903716329618

Packet received at: Entity1

Sender: Entity0

Packet Content: [0, 1, 3, 7]

Distance Vector for Entity1: [1, 0, 1, 999]

Distance Table at Entity1 before update:

via

D1 | 0 2

----+--------

0| 999 999

2| 999 999

3| 999 999

Distance Table at Entity1 after update:

via

D1 | 0 2

----+--------

0| 0 999

2| 3 999

3| 7 999

After recalculation, Entity1's Distance Table has Changed:

Distance to Entity 0: 1 -----> 1

Distance to Entity 1: 0 -----> 0

Distance to Entity 2: 1 -----> 1

Distance to Entity 3: 999 -----> 8

Sending packet: [1, 0, 1, 8] to Entity1's direct Neighbor: Entity0

Sending packet: [1, 0, 1, 8] to Entity1's direct Neighbor: Entity2

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main(): event received. t=8.818389566257807, node=2

src=0, dest=2, contents=[0, 1, 3, 5]

Entity2 update() is called at time: 8.818389566257807

Packet received at: Entity2

Sender: Entity0

Packet Content: [0, 1, 3, 5]

Distance Vector for Entity2: [3, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 999 999

1| 1 999 999

3| 7 999 999

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 999 999

1| 1 999 999

3| 5 999 999

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=8.926668874952401, node=3

src=0, dest=3, contents=[0, 1, 2, 5]

Entity3 update() is called at time: 8.926668874952401

Packet received at: Entity3

Sender: Entity0

Packet Content: [0, 1, 2, 5]

Distance Vector for Entity3: [7, 8, 2, 0]

Distance Table at Entity3 before update:

via

D3 | 0 2

----+--------

0| 0 999

1| 1 999

2| 3 999

Distance Table at Entity3 after update:

via

D3 | 0 2

----+--------

0| 0 999

1| 1 999

2| 2 999

After recalculation, No change to Entity3's Distance Table

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main(): event received. t=9.433739340063727, node=2

src=3, dest=2, contents=[7, 999, 2, 0]

Entity2 update() is called at time: 9.433739340063727

Packet received at: Entity2

Sender: Entity3

Packet Content: [7, 999, 2, 0]

Distance Vector for Entity2: [3, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 999 999

1| 1 999 999

3| 5 999 999

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 999 7

1| 1 999 999

3| 5 999 0

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=9.458788499037189, node=3

src=2, dest=3, contents=[3, 1, 0, 2]

Entity3 update() is called at time: 9.458788499037189

Packet received at: Entity3

Sender: Entity2

Packet Content: [3, 1, 0, 2]

Distance Vector for Entity3: [7, 8, 2, 0]

Distance Table at Entity3 before update:

via

D3 | 0 2

----+--------

0| 0 999

1| 1 999

2| 2 999

Distance Table at Entity3 after update:

via

D3 | 0 2

----+--------

0| 0 3

1| 1 1

2| 2 0

After recalculation, Entity3's Distance Table has Changed:

Distance to Entity 0: 7 -----> 5

Distance to Entity 1: 8 -----> 3

Distance to Entity 2: 2 -----> 2

Distance to Entity 3: 0 -----> 0

Sending packet: [5, 3, 2, 0] to Entity3's direct Neighbor: Entity0

Sending packet: [5, 3, 2, 0] to Entity3's direct Neighbor: Entity2

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main(): event received. t=9.524754258968745, node=0

src=3, dest=0, contents=[7, 999, 2, 0]

Entity0 update() is called at time: 9.524754258968745

Packet received at: Entity0

Sender: Entity3

Packet Content: [7, 999, 2, 0]

Distance Vector for Entity0: [0, 1, 2, 5]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 0 1 999

2| 1 0 999

3| 999 2 999

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 999

2| 1 0 2

3| 999 2 0

After recalculation, No change to Entity0's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=9.673343173208869, node=1

src=2, dest=1, contents=[3, 1, 0, 2]

Entity1 update() is called at time: 9.673343173208869

Packet received at: Entity1

Sender: Entity2

Packet Content: [3, 1, 0, 2]

Distance Vector for Entity1: [1, 0, 1, 8]

Distance Table at Entity1 before update:

via

D1 | 0 2

----+--------

0| 0 999

2| 3 999

3| 7 999

Distance Table at Entity1 after update:

via

D1 | 0 2

----+--------

0| 0 3

2| 3 0

3| 7 2

After recalculation, Entity1's Distance Table has Changed:

Distance to Entity 0: 1 -----> 1

Distance to Entity 1: 0 -----> 0

Distance to Entity 2: 1 -----> 1

Distance to Entity 3: 8 -----> 3

Sending packet: [1, 0, 1, 3] to Entity1's direct Neighbor: Entity0

Sending packet: [1, 0, 1, 3] to Entity1's direct Neighbor: Entity2

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main(): event received. t=9.709803184817087, node=2

src=1, dest=2, contents=[1, 0, 1, 999]

Entity2 update() is called at time: 9.709803184817087

Packet received at: Entity2

Sender: Entity1

Packet Content: [1, 0, 1, 999]

Distance Vector for Entity2: [3, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 999 7

1| 1 999 999

3| 5 999 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 1 7

1| 1 0 999

3| 5 999 0

After recalculation, Entity2's Distance Table has Changed:

Distance to Entity 0: 3 -----> 2

Distance to Entity 1: 1 -----> 1

Distance to Entity 2: 0 -----> 0

Distance to Entity 3: 2 -----> 2

Sending packet: [2, 1, 0, 2] to Entity3's direct Neighbor: Entity0

Sending packet: [2, 1, 0, 2] to Entity3's direct Neighbor: Entity1

Sending packet: [2, 1, 0, 2] to Entity3's direct Neighbor: Entity3

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main(): event received. t=11.477443132357648, node=2

src=3, dest=2, contents=[7, 8, 2, 0]

Entity2 update() is called at time: 11.477443132357648

Packet received at: Entity2

Sender: Entity3

Packet Content: [7, 8, 2, 0]

Distance Vector for Entity2: [2, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 1 7

1| 1 0 999

3| 5 999 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 1 7

1| 1 0 8

3| 5 999 0

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=11.967667330950848, node=2

src=1, dest=2, contents=[1, 0, 1, 8]

Entity2 update() is called at time: 11.967667330950848

Packet received at: Entity2

Sender: Entity1

Packet Content: [1, 0, 1, 8]

Distance Vector for Entity2: [2, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 1 7

1| 1 0 8

3| 5 999 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 1 7

1| 1 0 8

3| 5 8 0

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=11.981722124219116, node=0

src=1, dest=0, contents=[1, 0, 1, 8]

Entity0 update() is called at time: 11.981722124219116

Packet received at: Entity0

Sender: Entity1

Packet Content: [1, 0, 1, 8]

Distance Vector for Entity0: [0, 1, 2, 5]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 0 1 999

2| 1 0 2

3| 999 2 0

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 999

2| 1 0 2

3| 8 2 0

After recalculation, No change to Entity0's Distance Vector

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main(): event received. t=11.988007513760422, node=1

src=2, dest=1, contents=[2, 1, 0, 2]

Entity1 update() is called at time: 11.988007513760422

Packet received at: Entity1

Sender: Entity2

Packet Content: [2, 1, 0, 2]

Distance Vector for Entity1: [1, 0, 1, 3]

Distance Table at Entity1 before update:

via

D1 | 0 2

----+--------

0| 0 3

2| 3 0

3| 7 2

Distance Table at Entity1 after update:

via

D1 | 0 2

----+--------

0| 0 2

2| 3 0

3| 7 2

After recalculation, No change to Entity1's Distance Vector

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main(): event received. t=12.152472795991969, node=1

src=0, dest=1, contents=[0, 1, 3, 5]

Entity1 update() is called at time: 12.152472795991969

Packet received at: Entity1

Sender: Entity0

Packet Content: [0, 1, 3, 5]

Distance Vector for Entity1: [1, 0, 1, 3]

Distance Table at Entity1 before update:

via

D1 | 0 2

----+--------

0| 0 2

2| 3 0

3| 7 2

Distance Table at Entity1 after update:

via

D1 | 0 2

----+--------

0| 0 2

2| 3 0

3| 5 2

After recalculation, No change to Entity1's Distance Vector

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main(): event received. t=13.02694870815119, node=0

src=1, dest=0, contents=[1, 0, 1, 3]

Entity0 update() is called at time: 13.02694870815119

Packet received at: Entity0

Sender: Entity1

Packet Content: [1, 0, 1, 3]

Distance Vector for Entity0: [0, 1, 2, 5]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 0 1 999

2| 1 0 2

3| 8 2 0

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 999

2| 1 0 2

3| 3 2 0

After recalculation, Entity0's Distance Vector has Changed:

Distance to Entity 0: 0 -----> 0

Distance to Entity 1: 1 -----> 1

Distance to Entity 2: 2 -----> 2

Distance to Entity 3: 5 -----> 4

Sending packet: [0, 1, 2, 4] to Entity0's direct Neighbor: Entity1

Sending packet: [0, 1, 2, 4] to Entity0's direct Neighbor: Entity2

Sending packet: [0, 1, 2, 4] to Entity0's direct Neighbor: Entity3

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main(): event received. t=15.04535789899747, node=3

src=2, dest=3, contents=[2, 1, 0, 2]

Entity3 update() is called at time: 15.04535789899747

Packet received at: Entity3

Sender: Entity2

Packet Content: [2, 1, 0, 2]

Distance Vector for Entity3: [5, 3, 2, 0]

Distance Table at Entity3 before update:

via

D3 | 0 2

----+--------

0| 0 3

1| 1 1

2| 2 0

Distance Table at Entity3 after update:

via

D3 | 0 2

----+--------

0| 0 2

1| 1 1

2| 2 0

After recalculation, Entity3's Distance Table has Changed:

Distance to Entity 0: 5 -----> 4

Distance to Entity 1: 3 -----> 3

Distance to Entity 2: 2 -----> 2

Distance to Entity 3: 0 -----> 0

Sending packet: [4, 3, 2, 0] to Entity3's direct Neighbor: Entity0

Sending packet: [4, 3, 2, 0] to Entity3's direct Neighbor: Entity2

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main(): event received. t=15.08310690490486, node=0

src=3, dest=0, contents=[7, 8, 2, 0]

Entity0 update() is called at time: 15.08310690490486

Packet received at: Entity0

Sender: Entity3

Packet Content: [7, 8, 2, 0]

Distance Vector for Entity0: [0, 1, 2, 4]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 0 1 999

2| 1 0 2

3| 3 2 0

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 8

2| 1 0 2

3| 3 2 0

After recalculation, No change to Entity0's Distance Vector

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main(): event received. t=15.757423944498587, node=2

src=0, dest=2, contents=[0, 1, 2, 5]

Entity2 update() is called at time: 15.757423944498587

Packet received at: Entity2

Sender: Entity0

Packet Content: [0, 1, 2, 5]

Distance Vector for Entity2: [2, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 1 7

1| 1 0 8

3| 5 8 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 1 7

1| 1 0 8

3| 5 8 0

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=15.871170619978244, node=3

src=0, dest=3, contents=[0, 1, 2, 4]

Entity3 update() is called at time: 15.871170619978244

Packet received at: Entity3

Sender: Entity0

Packet Content: [0, 1, 2, 4]

Distance Vector for Entity3: [4, 3, 2, 0]

Distance Table at Entity3 before update:

via

D3 | 0 2

----+--------

0| 0 2

1| 1 1

2| 2 0

Distance Table at Entity3 after update:

via

D3 | 0 2

----+--------

0| 0 2

1| 1 1

2| 2 0

After recalculation, No change to Entity3's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=17.405663560952938, node=0

src=2, dest=0, contents=[2, 1, 0, 2]

Entity0 update() is called at time: 17.405663560952938

Packet received at: Entity0

Sender: Entity2

Packet Content: [2, 1, 0, 2]

Distance Vector for Entity0: [0, 1, 2, 4]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 0 1 8

2| 1 0 2

3| 3 2 0

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 8

2| 1 0 2

3| 3 2 0

After recalculation, No change to Entity0's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=17.675883733045843, node=2

src=1, dest=2, contents=[1, 0, 1, 3]

Entity2 update() is called at time: 17.675883733045843

Packet received at: Entity2

Sender: Entity1

Packet Content: [1, 0, 1, 3]

Distance Vector for Entity2: [2, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 1 7

1| 1 0 8

3| 5 8 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 1 7

1| 1 0 8

3| 5 3 0

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=19.72449307562107, node=2

src=3, dest=2, contents=[5, 3, 2, 0]

Entity2 update() is called at time: 19.72449307562107

Packet received at: Entity2

Sender: Entity3

Packet Content: [5, 3, 2, 0]

Distance Vector for Entity2: [2, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 1 7

1| 1 0 8

3| 5 3 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 1 5

1| 1 0 3

3| 5 3 0

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=20.087295716704567, node=1

src=0, dest=1, contents=[0, 1, 2, 5]

Entity1 update() is called at time: 20.087295716704567

Packet received at: Entity1

Sender: Entity0

Packet Content: [0, 1, 2, 5]

Distance Vector for Entity1: [1, 0, 1, 3]

Distance Table at Entity1 before update:

via

D1 | 0 2

----+--------

0| 0 2

2| 3 0

3| 5 2

Distance Table at Entity1 after update:

via

D1 | 0 2

----+--------

0| 0 2

2| 2 0

3| 5 2

After recalculation, No change to Entity1's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=21.951326296867077, node=2

src=0, dest=2, contents=[0, 1, 2, 4]

Entity2 update() is called at time: 21.951326296867077

Packet received at: Entity2

Sender: Entity0

Packet Content: [0, 1, 2, 4]

Distance Vector for Entity2: [2, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 1 5

1| 1 0 3

3| 5 3 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 1 5

1| 1 0 3

3| 4 3 0

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=22.337638721327288, node=0

src=3, dest=0, contents=[5, 3, 2, 0]

Entity0 update() is called at time: 22.337638721327288

Packet received at: Entity0

Sender: Entity3

Packet Content: [5, 3, 2, 0]

Distance Vector for Entity0: [0, 1, 2, 4]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 0 1 8

2| 1 0 2

3| 3 2 0

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

After recalculation, No change to Entity0's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=22.386856888122608, node=2

src=3, dest=2, contents=[4, 3, 2, 0]

Entity2 update() is called at time: 22.386856888122608

Packet received at: Entity2

Sender: Entity3

Packet Content: [4, 3, 2, 0]

Distance Vector for Entity2: [2, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 1 5

1| 1 0 3

3| 4 3 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 1 4

1| 1 0 3

3| 4 3 0

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=25.98828899674763, node=1

src=0, dest=1, contents=[0, 1, 2, 4]

Entity1 update() is called at time: 25.98828899674763

Packet received at: Entity1

Sender: Entity0

Packet Content: [0, 1, 2, 4]

Distance Vector for Entity1: [1, 0, 1, 3]

Distance Table at Entity1 before update:

via

D1 | 0 2

----+--------

0| 0 2

2| 2 0

3| 5 2

Distance Table at Entity1 after update:

via

D1 | 0 2

----+--------

0| 0 2

2| 2 0

3| 4 2

After recalculation, No change to Entity1's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=28.94791301701228, node=0

src=3, dest=0, contents=[4, 3, 2, 0]

Entity0 update() is called at time: 28.94791301701228

Packet received at: Entity0

Sender: Entity3

Packet Content: [4, 3, 2, 0]

Distance Vector for Entity0: [0, 1, 2, 4]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

After recalculation, No change to Entity0's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=10000.0, node=0

Link cost change.

Entity0 linkCostChageHandler() is called at time: 10000.0

Distance Vector for Entity0: [0, 1, 2, 4]

Distance Table at Entity0:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

Entity0's direct cost to neighbors before change: [0, 1, 3, 7]

The link cost form 0 to 1 has changed to 20.

Entity0's direct cost to neighbors after change: [0, 20, 3, 7]

After recalculation, Entity0's Distance Vector has Changed:

Distance to Entity 0: 0 -----> 0

Distance to Entity 1: 1 -----> 4

Distance to Entity 2: 2 -----> 3

Distance to Entity 3: 4 -----> 5

Sending packet: [0, 4, 3, 5] to Entity0's direct Neighbor: Entity1

Sending packet: [0, 4, 3, 5] to Entity0's direct Neighbor: Entity2

Sending packet: [0, 4, 3, 5] to Entity0's direct Neighbor: Entity3

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Entity1 linkCostChageHandler() is called at time: 10000.0

Distance Vector for Entity1: [1, 0, 1, 3]

Distance Table at Entity1:

via

D1 | 0 2

----+--------

0| 0 2

2| 2 0

3| 4 2

Entity1's direct cost to neighbors before change: [1, 0, 1, 999]

The link cost form 1 to 0 has changed to 20.

Entity1's direct cost to neighbors after change: [20, 0, 1, 999]

After recalculation, Entity1's Distance Table has Changed:

Distance to Entity 0: 1 -----> 3

Distance to Entity 1: 0 -----> 0

Distance to Entity 2: 1 -----> 1

Distance to Entity 3: 3 -----> 3

Sending packet: [3, 0, 1, 3] to Entity1's direct Neighbor: Entity0

Sending packet: [3, 0, 1, 3] to Entity1's direct Neighbor: Entity2

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=10001.09615969884, node=1

src=0, dest=1, contents=[0, 4, 3, 5]

Entity1 update() is called at time: 10001.09615969884

Packet received at: Entity1

Sender: Entity0

Packet Content: [0, 4, 3, 5]

Distance Vector for Entity1: [3, 0, 1, 3]

Distance Table at Entity1 before update:

via

D1 | 0 2

----+--------

0| 0 2

2| 2 0

3| 4 2

Distance Table at Entity1 after update:

via

D1 | 0 2

----+--------

0| 0 2

2| 3 0

3| 5 2

After recalculation, No change to Entity1's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=10002.449389910345, node=2

src=0, dest=2, contents=[0, 4, 3, 5]

Entity2 update() is called at time: 10002.449389910345

Packet received at: Entity2

Sender: Entity0

Packet Content: [0, 4, 3, 5]

Distance Vector for Entity2: [2, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 1 4

1| 1 0 3

3| 4 3 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 1 4

1| 4 0 3

3| 5 3 0

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=10002.602493619735, node=3

src=0, dest=3, contents=[0, 4, 3, 5]

Entity3 update() is called at time: 10002.602493619735

Packet received at: Entity3

Sender: Entity0

Packet Content: [0, 4, 3, 5]

Distance Vector for Entity3: [4, 3, 2, 0]

Distance Table at Entity3 before update:

via

D3 | 0 2

----+--------

0| 0 2

1| 1 1

2| 2 0

Distance Table at Entity3 after update:

via

D3 | 0 2

----+--------

0| 0 2

1| 4 1

2| 3 0

After recalculation, No change to Entity3's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=10005.863573583054, node=0

src=1, dest=0, contents=[3, 0, 1, 3]

Entity0 update() is called at time: 10005.863573583054

Packet received at: Entity0

Sender: Entity1

Packet Content: [3, 0, 1, 3]

Distance Vector for Entity0: [0, 4, 3, 5]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

After recalculation, No change to Entity0's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=10009.764506089268, node=2

src=1, dest=2, contents=[3, 0, 1, 3]

Entity2 update() is called at time: 10009.764506089268

Packet received at: Entity2

Sender: Entity1

Packet Content: [3, 0, 1, 3]

Distance Vector for Entity2: [2, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 1 4

1| 4 0 3

3| 5 3 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 3 4

1| 4 0 3

3| 5 3 0

After recalculation, Entity2's Distance Table has Changed:

Distance to Entity 0: 2 -----> 3

Distance to Entity 1: 1 -----> 1

Distance to Entity 2: 0 -----> 0

Distance to Entity 3: 2 -----> 2

Sending packet: [3, 1, 0, 2] to Entity3's direct Neighbor: Entity0

Sending packet: [3, 1, 0, 2] to Entity3's direct Neighbor: Entity1

Sending packet: [3, 1, 0, 2] to Entity3's direct Neighbor: Entity3

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=10012.722925213437, node=3

src=2, dest=3, contents=[3, 1, 0, 2]

Entity3 update() is called at time: 10012.722925213437

Packet received at: Entity3

Sender: Entity2

Packet Content: [3, 1, 0, 2]

Distance Vector for Entity3: [4, 3, 2, 0]

Distance Table at Entity3 before update:

via

D3 | 0 2

----+--------

0| 0 2

1| 4 1

2| 3 0

Distance Table at Entity3 after update:

via

D3 | 0 2

----+--------

0| 0 3

1| 4 1

2| 3 0

After recalculation, Entity3's Distance Table has Changed:

Distance to Entity 0: 4 -----> 5

Distance to Entity 1: 3 -----> 3

Distance to Entity 2: 2 -----> 2

Distance to Entity 3: 0 -----> 0

Sending packet: [5, 3, 2, 0] to Entity3's direct Neighbor: Entity0

Sending packet: [5, 3, 2, 0] to Entity3's direct Neighbor: Entity2

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=10012.9733450715, node=0

src=2, dest=0, contents=[3, 1, 0, 2]

Entity0 update() is called at time: 10012.9733450715

Packet received at: Entity0

Sender: Entity2

Packet Content: [3, 1, 0, 2]

Distance Vector for Entity0: [0, 4, 3, 5]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

After recalculation, No change to Entity0's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=10014.315194245917, node=1

src=2, dest=1, contents=[3, 1, 0, 2]

Entity1 update() is called at time: 10014.315194245917

Packet received at: Entity1

Sender: Entity2

Packet Content: [3, 1, 0, 2]

Distance Vector for Entity1: [3, 0, 1, 3]

Distance Table at Entity1 before update:

via

D1 | 0 2

----+--------

0| 0 2

2| 3 0

3| 5 2

Distance Table at Entity1 after update:

via

D1 | 0 2

----+--------

0| 0 3

2| 3 0

3| 5 2

After recalculation, Entity1's Distance Table has Changed:

Distance to Entity 0: 3 -----> 4

Distance to Entity 1: 0 -----> 0

Distance to Entity 2: 1 -----> 1

Distance to Entity 3: 3 -----> 3

Sending packet: [4, 0, 1, 3] to Entity1's direct Neighbor: Entity0

Sending packet: [4, 0, 1, 3] to Entity1's direct Neighbor: Entity2

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=10015.660136285791, node=2

src=1, dest=2, contents=[4, 0, 1, 3]

Entity2 update() is called at time: 10015.660136285791

Packet received at: Entity2

Sender: Entity1

Packet Content: [4, 0, 1, 3]

Distance Vector for Entity2: [3, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 3 4

1| 4 0 3

3| 5 3 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 4 4

1| 4 0 3

3| 5 3 0

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=10015.821327366199, node=2

src=3, dest=2, contents=[5, 3, 2, 0]

Entity2 update() is called at time: 10015.821327366199

Packet received at: Entity2

Sender: Entity3

Packet Content: [5, 3, 2, 0]

Distance Vector for Entity2: [3, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 4 4

1| 4 0 3

3| 5 3 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 4 5

1| 4 0 3

3| 5 3 0

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=10017.610987132479, node=0

src=3, dest=0, contents=[5, 3, 2, 0]

Entity0 update() is called at time: 10017.610987132479

Packet received at: Entity0

Sender: Entity3

Packet Content: [5, 3, 2, 0]

Distance Vector for Entity0: [0, 4, 3, 5]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

After recalculation, No change to Entity0's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=10023.324373010815, node=0

src=1, dest=0, contents=[4, 0, 1, 3]

Entity0 update() is called at time: 10023.324373010815

Packet received at: Entity0

Sender: Entity1

Packet Content: [4, 0, 1, 3]

Distance Vector for Entity0: [0, 4, 3, 5]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

After recalculation, No change to Entity0's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=20000.0, node=0

Link cost change.

Entity0 linkCostChageHandler() is called at time: 20000.0

Distance Vector for Entity0: [0, 4, 3, 5]

Distance Table at Entity0:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

Entity0's direct cost to neighbors before change: [0, 20, 3, 7]

The link cost form 0 to 1 has changed to 1.

Entity0's direct cost to neighbors after change: [0, 1, 3, 7]

After recalculation, Entity0's Distance Vector has Changed:

Distance to Entity 0: 0 -----> 0

Distance to Entity 1: 4 -----> 1

Distance to Entity 2: 3 -----> 2

Distance to Entity 3: 5 -----> 4

Sending packet: [0, 1, 2, 4] to Entity0's direct Neighbor: Entity1

Sending packet: [0, 1, 2, 4] to Entity0's direct Neighbor: Entity2

Sending packet: [0, 1, 2, 4] to Entity0's direct Neighbor: Entity3

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Entity1 linkCostChageHandler() is called at time: 20000.0

Distance Vector for Entity1: [4, 0, 1, 3]

Distance Table at Entity1:

via

D1 | 0 2

----+--------

0| 0 3

2| 3 0

3| 5 2

Entity1's direct cost to neighbors before change: [20, 0, 1, 999]

The link cost form 1 to 0 has changed to 1.

Entity1's direct cost to neighbors after change: [1, 0, 1, 999]

After recalculation, Entity1's Distance Table has Changed:

Distance to Entity 0: 4 -----> 1

Distance to Entity 1: 0 -----> 0

Distance to Entity 2: 1 -----> 1

Distance to Entity 3: 3 -----> 3

Sending packet: [1, 0, 1, 3] to Entity1's direct Neighbor: Entity0

Sending packet: [1, 0, 1, 3] to Entity1's direct Neighbor: Entity2

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=20002.07855138074, node=3

src=0, dest=3, contents=[0, 1, 2, 4]

Entity3 update() is called at time: 20002.07855138074

Packet received at: Entity3

Sender: Entity0

Packet Content: [0, 1, 2, 4]

Distance Vector for Entity3: [5, 3, 2, 0]

Distance Table at Entity3 before update:

via

D3 | 0 2

----+--------

0| 0 3

1| 4 1

2| 3 0

Distance Table at Entity3 after update:

via

D3 | 0 2

----+--------

0| 0 3

1| 1 1

2| 2 0

After recalculation, No change to Entity3's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=20006.331413194766, node=1

src=0, dest=1, contents=[0, 1, 2, 4]

Entity1 update() is called at time: 20006.331413194766

Packet received at: Entity1

Sender: Entity0

Packet Content: [0, 1, 2, 4]

Distance Vector for Entity1: [1, 0, 1, 3]

Distance Table at Entity1 before update:

via

D1 | 0 2

----+--------

0| 0 3

2| 3 0

3| 5 2

Distance Table at Entity1 after update:

via

D1 | 0 2

----+--------

0| 0 3

2| 2 0

3| 4 2

After recalculation, No change to Entity1's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=20006.872290362062, node=0

src=1, dest=0, contents=[1, 0, 1, 3]

Entity0 update() is called at time: 20006.872290362062

Packet received at: Entity0

Sender: Entity1

Packet Content: [1, 0, 1, 3]

Distance Vector for Entity0: [0, 1, 2, 4]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

After recalculation, No change to Entity0's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=20006.896562428166, node=2

src=0, dest=2, contents=[0, 1, 2, 4]

Entity2 update() is called at time: 20006.896562428166

Packet received at: Entity2

Sender: Entity0

Packet Content: [0, 1, 2, 4]

Distance Vector for Entity2: [3, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 4 5

1| 4 0 3

3| 5 3 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 4 5

1| 1 0 3

3| 4 3 0

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=20009.858905206023, node=2

src=1, dest=2, contents=[1, 0, 1, 3]

Entity2 update() is called at time: 20009.858905206023

Packet received at: Entity2

Sender: Entity1

Packet Content: [1, 0, 1, 3]

Distance Vector for Entity2: [3, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 4 5

1| 1 0 3

3| 4 3 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 1 5

1| 1 0 3

3| 4 3 0

After recalculation, Entity2's Distance Table has Changed:

Distance to Entity 0: 3 -----> 2

Distance to Entity 1: 1 -----> 1

Distance to Entity 2: 0 -----> 0

Distance to Entity 3: 2 -----> 2

Sending packet: [2, 1, 0, 2] to Entity3's direct Neighbor: Entity0

Sending packet: [2, 1, 0, 2] to Entity3's direct Neighbor: Entity1

Sending packet: [2, 1, 0, 2] to Entity3's direct Neighbor: Entity3

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=20012.71954277227, node=0

src=2, dest=0, contents=[2, 1, 0, 2]

Entity0 update() is called at time: 20012.71954277227

Packet received at: Entity0

Sender: Entity2

Packet Content: [2, 1, 0, 2]

Distance Vector for Entity0: [0, 1, 2, 4]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

After recalculation, No change to Entity0's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=20014.23075070867, node=1

src=2, dest=1, contents=[2, 1, 0, 2]

Entity1 update() is called at time: 20014.23075070867

Packet received at: Entity1

Sender: Entity2

Packet Content: [2, 1, 0, 2]

Distance Vector for Entity1: [1, 0, 1, 3]

Distance Table at Entity1 before update:

via

D1 | 0 2

----+--------

0| 0 3

2| 2 0

3| 4 2

Distance Table at Entity1 after update:

via

D1 | 0 2

----+--------

0| 0 2

2| 2 0

3| 4 2

After recalculation, No change to Entity1's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=20015.029053294147, node=3

src=2, dest=3, contents=[2, 1, 0, 2]

Entity3 update() is called at time: 20015.029053294147

Packet received at: Entity3

Sender: Entity2

Packet Content: [2, 1, 0, 2]

Distance Vector for Entity3: [5, 3, 2, 0]

Distance Table at Entity3 before update:

via

D3 | 0 2

----+--------

0| 0 3

1| 1 1

2| 2 0

Distance Table at Entity3 after update:

via

D3 | 0 2

----+--------

0| 0 2

1| 1 1

2| 2 0

After recalculation, Entity3's Distance Table has Changed:

Distance to Entity 0: 5 -----> 4

Distance to Entity 1: 3 -----> 3

Distance to Entity 2: 2 -----> 2

Distance to Entity 3: 0 -----> 0

Sending packet: [4, 3, 2, 0] to Entity3's direct Neighbor: Entity0

Sending packet: [4, 3, 2, 0] to Entity3's direct Neighbor: Entity2

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=20019.03154519472, node=0

src=3, dest=0, contents=[4, 3, 2, 0]

Entity0 update() is called at time: 20019.03154519472

Packet received at: Entity0

Sender: Entity3

Packet Content: [4, 3, 2, 0]

Distance Vector for Entity0: [0, 1, 2, 4]

Distance Table at Entity0 before update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

Distance Table at Entity0 after update:

via

D0 | 1 2 3

----+------------

1| 0 1 3

2| 1 0 2

3| 3 2 0

After recalculation, No change to Entity0's Distance Vector

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

main(): event received. t=20020.017965347004, node=2

src=3, dest=2, contents=[4, 3, 2, 0]

Entity2 update() is called at time: 20020.017965347004

Packet received at: Entity2

Sender: Entity3

Packet Content: [4, 3, 2, 0]

Distance Vector for Entity2: [2, 1, 0, 2]

Distance Table at Entity2 before update:

via

D2 | 0 1 3

----+------------

0| 0 1 5

1| 1 0 3

3| 4 3 0

Distance Table at Entity2 after update:

via

D2 | 0 1 3

----+------------

0| 0 1 4

1| 1 0 3

3| 4 3 0

After recalculation, No change to Entity2's Distance Table

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Simulator terminated at t=20020.017965347004, no packets in medium.

Jies-MacBook-Pro-2:code jay$