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

----------------------------------------------------------------------
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
----------------------------------------------------------------------
```

```
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
----------------------------------------------------------------------
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
----------------------------------------------------------------------
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
----------------------------------------------------------------------
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
----------------------------------------------------------------------------
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
----------------------------------------------------------------------------
```

```
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
--------------------------------------------------------------------------------
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
----------------------------------------------------------------------
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
----------------------------------------------------------------------
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
------------------------------------------------------------------------
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
----------------------------------------------------------------------
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
----------------------------------------------------------------------------
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
_____________________________________________________________________
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
-------------------------------------------------------------------------
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
-------------------------------------------------------------------------------
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
-------------------------------------------------------------------------------
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
--------------------------------------------------------------------------------
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
--------------------------------------------------------------------------------
```

```
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
________________________________________________________________________
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$
```