

Mapping One Input to Two Outputs

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A single input at Location 1 must activate an EZ-LIGHT[®] at Location 2 and 3. The I/O linking tab of the DX80 User Configuration Tool does not allow a user to map a single input to multiple outputs.

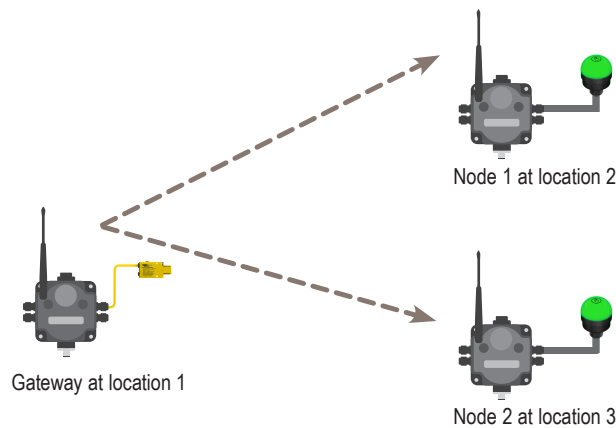
There are three options to solve this application.

- Solution 1 uses a Gateway and two Nodes, with the sensor connected to the Gateway (see [Solution 1](#) on page 1).
 - Solution 2 uses a Gateway and two Nodes, with the sensor connected to one of the Nodes (see [Solution 2](#) on page 1).
 - Solution 3 uses a Gateway, a DX85, and two Nodes (see [Solution 3](#) on page 2).
1. Connect your Gateway to a Windows-based PC running the User Configuration Tool (UCT) software (downloaded from the Banner Engineering website).
 2. Launch the UCT software.

Solution 1

Solution 1 uses a sensor connected to the Gateway and two Nodes connected to lights.

This solution requires an unused discrete input on the device at location 1.



1. Install a jumper between the sensor input and a second discrete I/O terminal on the device at location 1. In the example shown, the Gateway's DI1 and DI2 are jumpered.
2. On the UCT: map the Gateway's DI1 to Node 1's DO1 and the Gateway's DI2 to Node 2's DO1. The input signal to the Gateway is now mapped to outputs on two different Nodes.

Advantages

- fast and easy
- does not require additional hardware

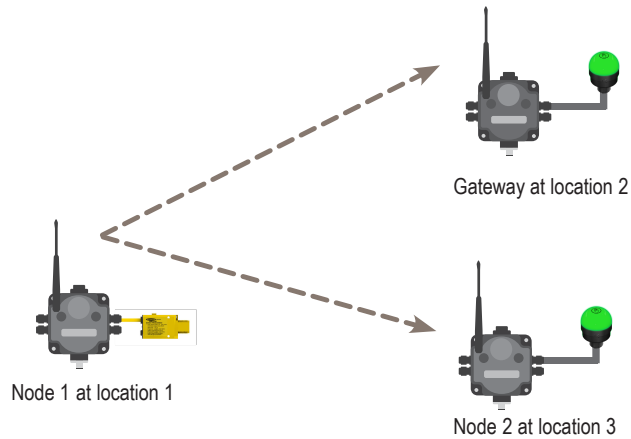
Disadvantages

- requires extra wiring to jumper the inputs
- uses an additional I/O point
- does not work with analog I/O

Solution 2

Solution 2 uses a sensor connected to a Node, and a Gateway and second Node connected to lights.

The sensor in this scenario must be connected to the Node, not the Gateway.



1. On the UCT, go to the **Configuration > Device Configuration** screen.
2. Click on the arrows next to Node 1 to view the parameters.
3. Enable both Input 1 and Input 2.
4. Using the drop-down list, define Node 1's Input 1 and Input 2 to both be PNP In 1 or NPN In 1.
5. Click SEND I/O Points to upload the configuration to the wireless network.
6. Go to the Linking > Linking **Configuration** screen.
7. Click on the arrow next to Node 1 to view its mapping configuration.
8. Map Node 1 Input 1 to Gateway Output 9 (enabled).
9. Map Node 1 Input 2 to Node 2 Output 9 (enabled).
10. Verify both outputs are enabled and configured to the correct discrete type.
11. Click SEND Link Data or SEND all I/O Links.
The linking data for all I/O points is uploaded to the wireless network.

Advantages:

- no additional wiring is required
- changes only require access to the Gateway

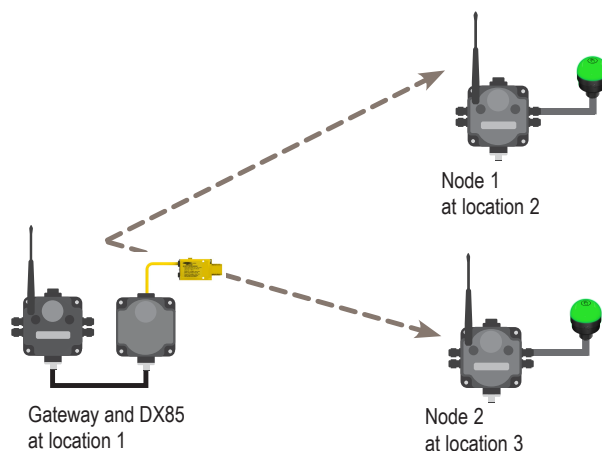
Disadvantages:

- more complex programming using extended control messages
- no visual evidence of changes is apparent (ie: no jumper wire)
- uses an additional I/O point
- extended control messages can only be made on Node I/O

Solution 3

Solution 3 uses a sensor connected to a DX85 Modbus RTU Remote I/O, a Gateway, and two Nodes connected to lights.

Use a DX85 Expanded Remote I/O device to map one input on the DX85 to two different locations. In this scenario, the sensor is wired to an input on the DX85.



1. Go to the > screen.
2. Set the DX85 to be Slave ID 2.
3. Wire the sensors into the DX85's discrete input 1.
4. Map the DX80's DI1 to Node 1's DO1 and Node 2's DO1.