The Micro800 CCW example code will automatically read the devices setup and place their data (process and status) in the relevant variables.

The first step is to set the maximum devices to be read. This is setup using the *HRT\_MAX\_COUNT* tag. The number of HART devices (main or multidrop) to be read is setup with the *HRT\_MAX\_COUNT*. This value defaults to 1.

For each device the user must select the channel as well as the device index. This is setup in the *HRT\_DATA* tag array where *HRT\_DATA[0]* is the first device and *HRT\_DATA[27]* is the last HART device. Using the *HRT\_DATA[x].Channel* and *HRT\_DATA[x].DeviceIndex* the user can set the channel and device index for each element in the *HRT\_DATA* array.

*HRT\_DATA[x].Channel* is from 0 to 3.

*HRT\_DATA[x].DeviceIndex* is from 0 to 7, where 0 is the main device and 1 to 7 is multidrop index 0 to 6.

The data for each specific HART device will be populated in *HRT\_DATA[x]* tag with x being the tag index.

Example;

The setup is as shown below:

|  |  |
| --- | --- |
| **Tag** | **Value** |
| HRT\_MAX\_COUNT | 3 |
| HRT\_DATA[0].Channel | 0 |
| HRT\_DATA[0].DeviceIndex | 0 (main device) |
| HRT\_DATA[1].Channel | 2 |
| HRT\_DATA[1].DeviceIndex | 1 (first multidrop device) |
| HRT\_DATA[2].Channel | 3 |
| HRT\_DATA[2].DeviceIndex | 4 (third multidrop device) |

The example ladder code will automatically go and read and populate the status and data for three devices; the main device on channel 0, multidrop device 0 on channel 2, and multidrop device 3 on channel 3.