



OCS Training Workshop
LAB 8
CsCAN Networking

Lab 8: CsCAN Networking

Objective:

Review and Understand global data transfer from OCS-to-OCS over CsCAN network.

Procedure:

Part 1.

Step 1

➤ **Create new Cscape program.**

- 1). Title the XL6 program “XL6 CsCAN”.
- 2). Set the target to Node Id as 1. Verify through the system menu of the XL6 OCS that the node address is set to 1 and that the baud rate is 125K.
- 3). Configure the XL6. (Reference Lab 1 for correct procedure)
- 4). Write a ladder program to increment a counter every 1 second. Assign the counter to %R1. The counter should be configured to count to 200. Use the 16th bit of the second word of the counter, %R2.16, to reset the counter upon the counter reaching the preset value. Remember that the counter will occupy 2 registers so the counter will consume % R1 – R2.
Hint: %S5 is a system register that pulses every second
- 5). Move the accumulated value of the counter, %R1, to %AQQ1. This will broadcast the counter value onto the CsCAN network, allowing other nodes on the network to read the information.
- 6). Configure screen 1 to display “Outgoing Data” on the first line of the display and display the data for %AQQ1 on the second line of the display. (Reference Lab 1 for help on configuring screens.)
- 7.) Configure %AQQ1 to broadcast the data every scan cycle using the NET PUT function block. The node ID for the Net Put function will be the XL6 node ID. Set the no. of words to be broadcast on the network.

Network Put Words

Network Data
ID: 1 Name: 16-BIT

Format
☒ Global Data ☐ Directed Data (Remote I/O)

Data
☐ Digital Word Offset: 0
☒ Analog

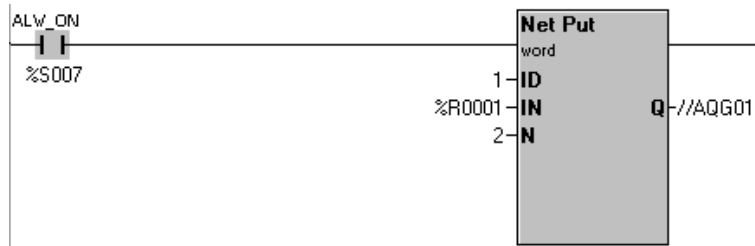
Source Data
Address: %R0001 Name: 16-BIT

☐ Send on Change of State
Send: Name: 1-BIT
This register will force a transmission, ignoring change of state.

Num Words: 2

OK Cancel

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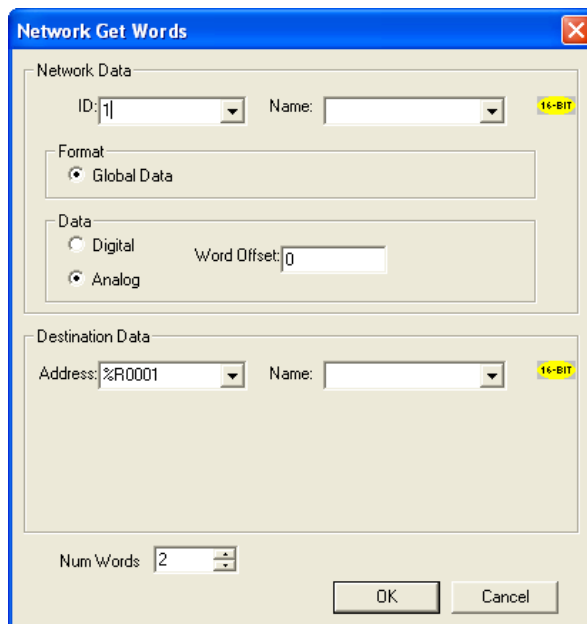
'Net Put' function displays the Network ID of the device from where the registers need to be put on the network and the no. of registers to be broadcast over the network.

8). Save the program to the PC and then download the program to the XL6.

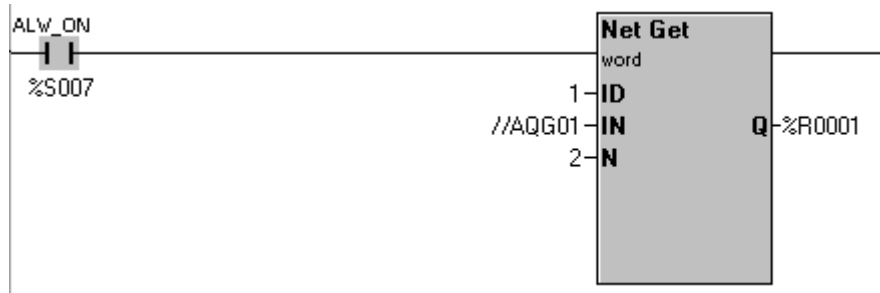
Step 2

➤ **Create new XLT program.**

- 1). Title the XLT program "XLT CsCAN".
- 2). Set the target to node id 2. Verify through the system menu of the XLT that the node address is set to 2 and that the baud rate is 125K.
- 3). Configure the XLT. (Reference Lab 1 for correct procedure)
- 4). Configure the network to read the information from node 1 into %R1.
- 5). Configure Screen 1 to display "Incoming Data" on the first line and configure a data field on the second to display %R1. (Reference Lab 1 for help on configuring screens.)
- 6). Configure %AQG1 to read the data every scan cycle using the NET GET function block. The node ID for the Net Get function will be the XL6 node ID. Set the no. of words to be read on the network.



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'Net Get' function displays the Network ID of the device from where the registers need to be read along with the no. of registers to be read over the network.

7). Save the program and then download the program to the XLT.

Step 3

- **Verify the program's functionality.** The XLT should display the same value that the XL6 is displaying on the screen.