FAQ: How can I use the 16 bit data from my Nexus unit with my 32 bit Network Scanner?

The easiest way to convert the data between the 16 and 32 bit formats is to simply use instructions that move blocks of data between the different data formats. (Rockwell Automation PLCs use COP or CPS instructions to perform this task.) The reason that this works is that these instructions move data one byte at a time, essentially ignoring the data format of the source and destination registers.

To read data from a Nexus unit, create enough 16 bit internal registers to hold all of the data from the Nexus unit. Then use the Block Move instruction to copy the data from the scanner module's 32 bit registers to your 16 bit internal registers, setting the instruction's length parameter equal to the number of 16 bit destination registers.

To send data to a Nexus unit, create the data to be sent in internal 16 bit registers. Then use the Block Move instruction to copy this data from the internal 16 bit registers to the scanner module's 32 bit registers, setting the instruction's length parameter equal to the number of 32 bit destination registers.

Note: While the above is true for Rockwell Automation PLCs, it may or may not apply to scanner modules and or PLCs made by other manufacturers.

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