

Outline of converting data transferred from one piece of electronics to a PLC using Studio 5000 EthernetIP module with CIP protocol.

The screenshot shows three 'Copy File' blocks in a sequence, each labeled 'COP'. The first block copies from 'BarcodeCognex:I.InspectionResults[0]' to 'MyBarcode.DATA[0]' with a length of 4. The second block copies from 'BarcodeCognex:I.InspectionResults[1]' to 'MyBarcode.DATA[4]' with a length of 4. The third block copies from 'BarcodeCognex:I.InspectionResults[2]' to 'MyBarcode.DATA[8]' with a length of 2.

Below the blocks are three data tables:

- 16#M7_12:**

MyBarcode.DATA[0]	'2'
MyBarcode.DATA[1]	'1'
MyBarcode.DATA[2]	'7'
MyBarcode.DATA[3]	'M'
- 16#2K_D8:**

MyBarcode.DATA[4]	'8'
MyBarcode.DATA[5]	'D'
MyBarcode.DATA[6]	'K'
MyBarcode.DATA[7]	'2'
- 16#00_WV:**

MyBarcode.DATA[8]	'V'
MyBarcode.DATA[9]	'W'

At the bottom, there are three pairs of tables comparing 'Cognex' and 'PLC' data:

Addr	Cognex	PLC
00/01	32 31	4d 37
02/03	37 4d	01/00 31 32

Addr	Cognex	PLC
08/09	56 57	10/11 00 00
10/11	00 00	09/08 57 56

Addr	Cognex	PLC
04/05	38 44	07/06 32 4b
06/07	4b 32	05/04 44 38

The graphic below indicates the data as it appears (in hex) on both the PLC and camera side.

BarcodeCognex:I.InspectionResults	{...}	{...}	Decimal	DINT[8]
+ BarcodeCognex:I.InspectionResults[0]	16#4d37_3132		Hex	DINT
+ BarcodeCognex:I.InspectionResults[1]	16#324b_4438		Hex	DINT
+ BarcodeCognex:I.InspectionResults[2]	16#0000_5756		Hex	DINT
+ BarcodeCognex:I.InspectionResults[3]	00 32 31 37 4d 38 44 4b 32	217M8DK2		DINT
+ BarcodeCognex:I.InspectionResults[4]	08 56 57	VW		DINT
+ BarcodeCognex:I.InspectionResults[5]				DINT
+ BarcodeCognex:I.InspectionResults[6]				DINT
+ BarcodeCognex:I.InspectionResults[7]	0		Decimal	DINT

Data as it appears on Cognex side.

Addr	Cognex
00/01	32 31
02/03	37 4d
04/05	38 44
06/07	4b 32
08/09	56 57
10/11	00 00

Addr	PLC
03/02	4d 37
01/00	31 32
07/06	32 4b
05/04	44 38
10/11	00 00
09/08	57 56