

# SensorLab Steel: PLC Setup for Generic EIP Module Integration

[Link to Video Demonstration](#)

---

## CONTROL/COMPACTLOGIX COMMS

GMCCUTCHEON NOTES 9/11/2024



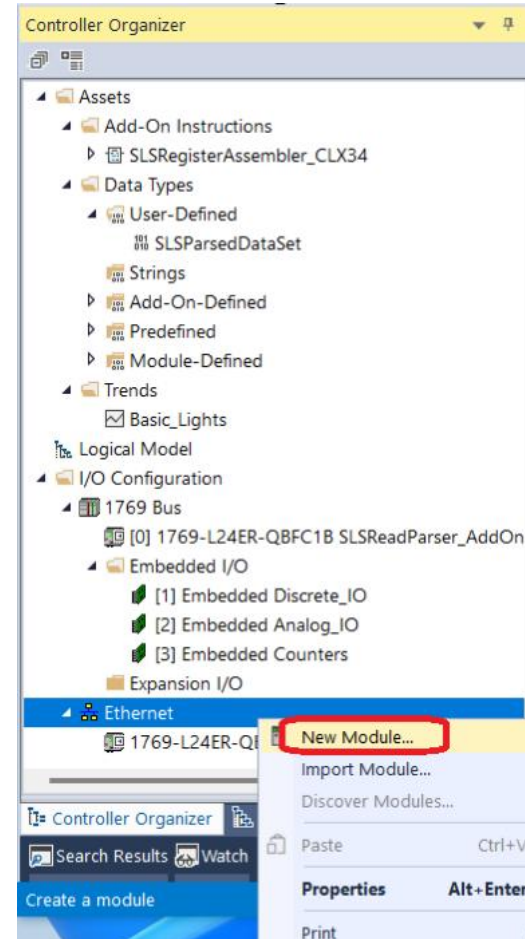
# Add Generic Ethernet Module

---

- This example uses a CompactLogix 1769-L24ER-QBFC1B v36 PLC and Studio5000 Logix Designer Mini Edition to demonstrate connecting the SLS instrument to an Allen Bradley PLC via EIP.
- The SLS instrument EIP settings for this example:
- IP address: 10.10.10.55
- Subnet Mask: 255.255.255.0
- \*NOTE: Some AB PLC controller models/configurations require this module addition to be completed 'OFFLINE' then downloaded to the PLC.

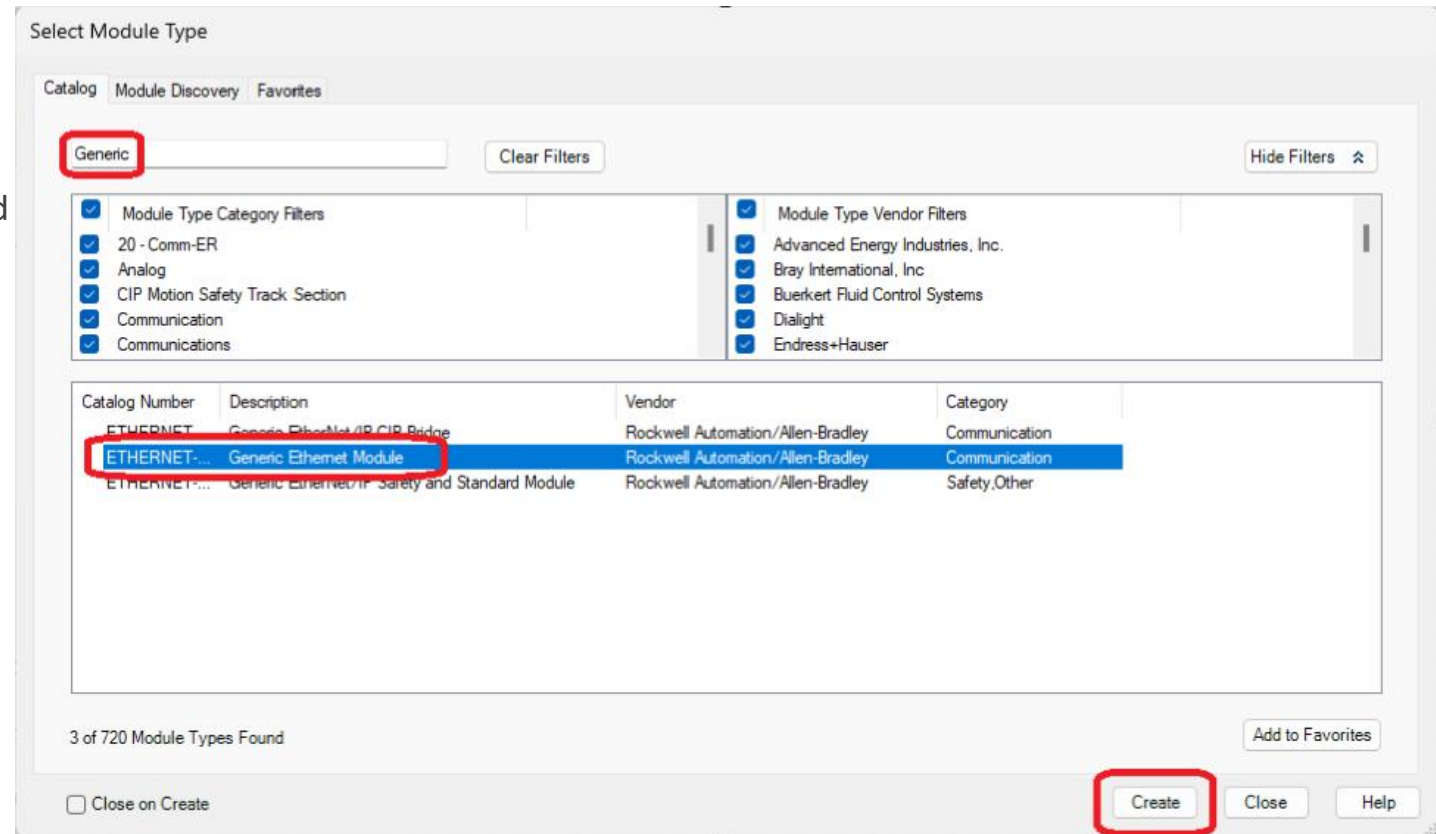
# Add Generic Ethernet Module (cont.)

- Right-click 'Ethernet' in the Studio5000 Controller Organizer and select the 'New Module' menu item.



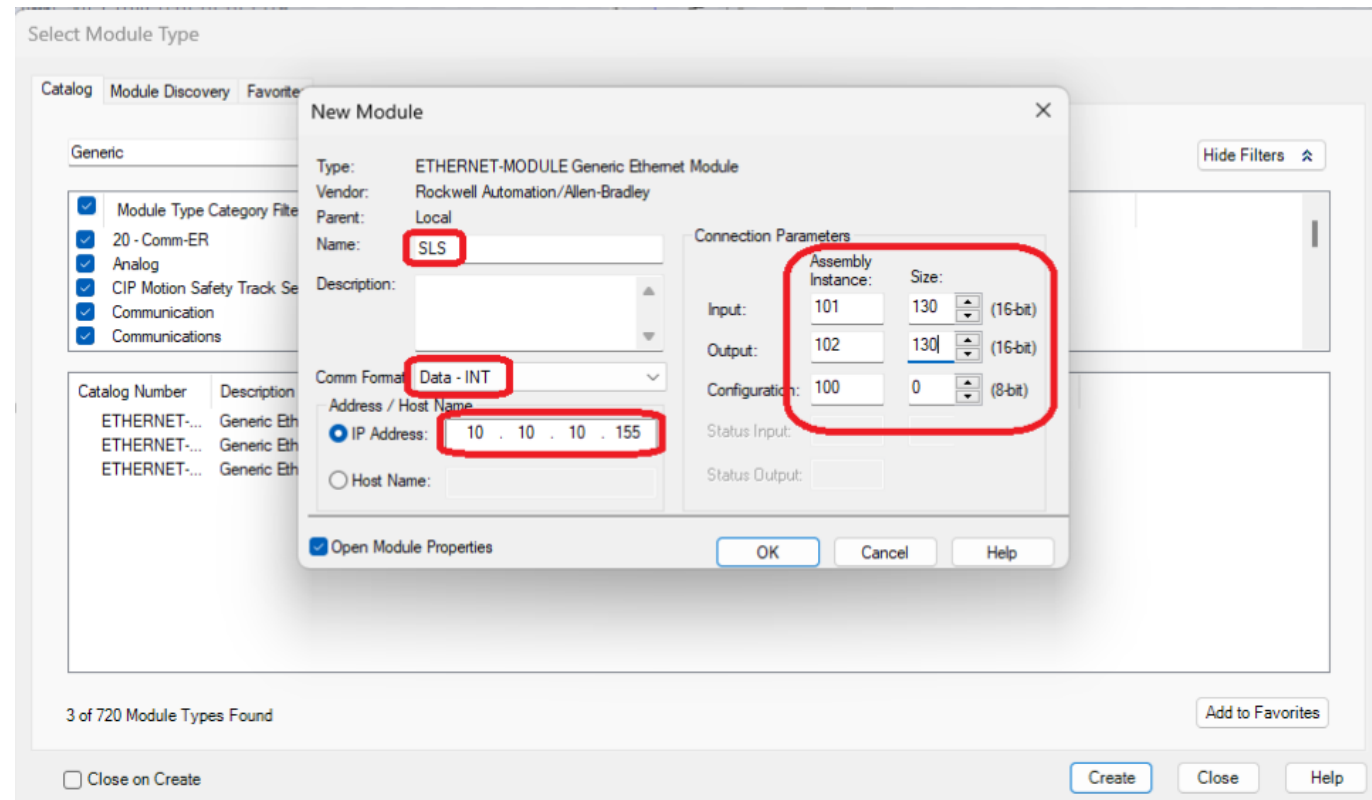
# Add Generic Ethernet Module (cont.)

- Type “Generic” into the search textbox and select “Generic Ethernet Module”.
- Click <Create>.



# Add Generic Ethernet Module (cont.)

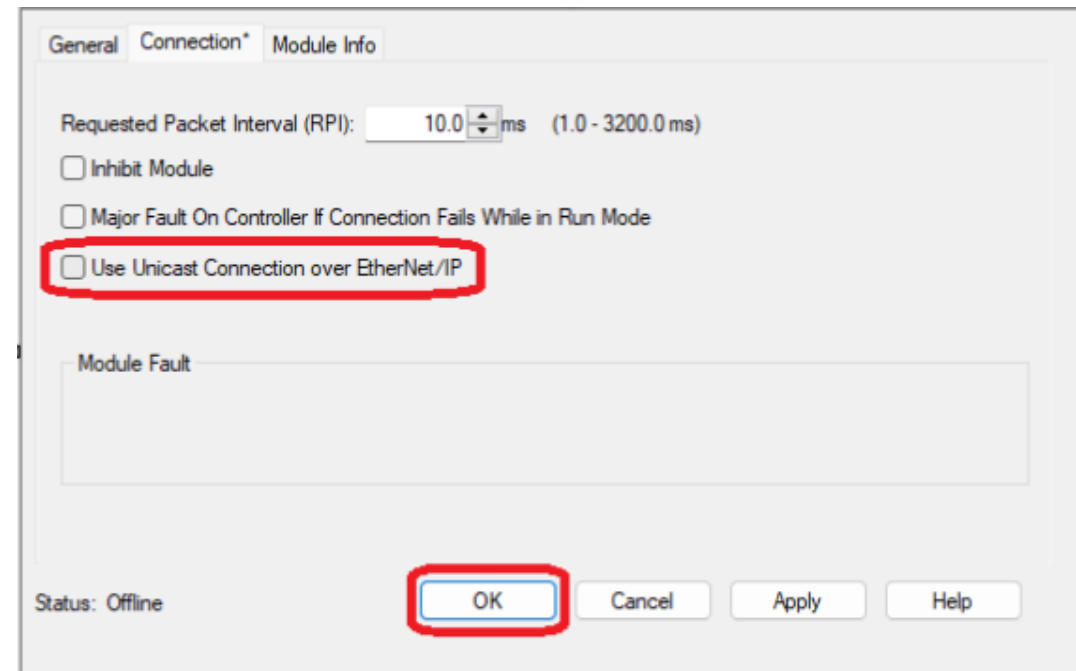
- Name the module. In this example 'SLS'. The controller tags automatically created to manage the data from this module will use this name (ie SLS:I.Data).
- Change the Comm Format to INT.
- Add the EIP IP address for the SLS instrument. In this example '10.10.10.155'.
- Enter the Connection Parameters as shown on the screenshot.
- Click <OK>.



# Add Generic Ethernet Module (cont.)

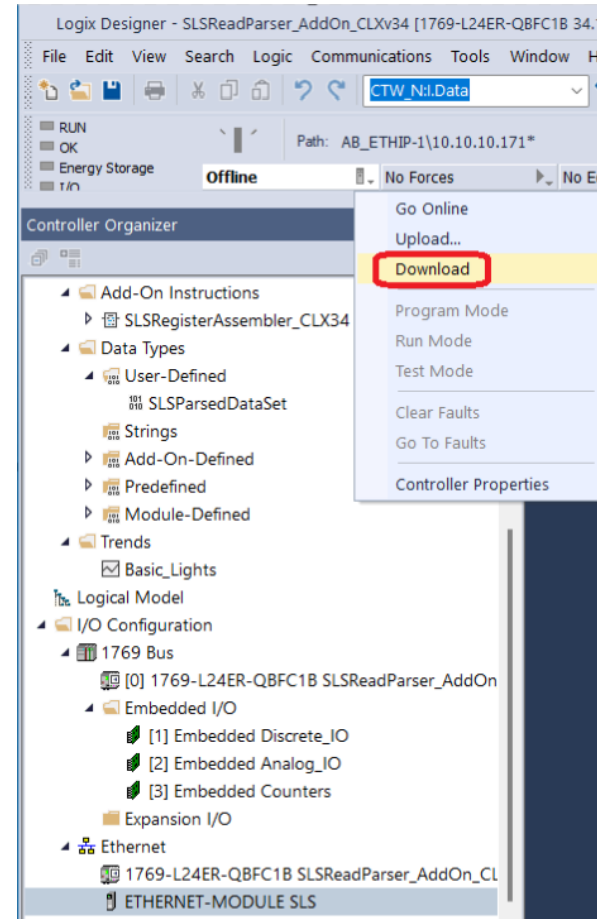
---

- The Module Properties window will open.
- Insure that 'Use Unicast Connection over EtherNet/IP' is NOT CHECKED.
- Click <OK>.



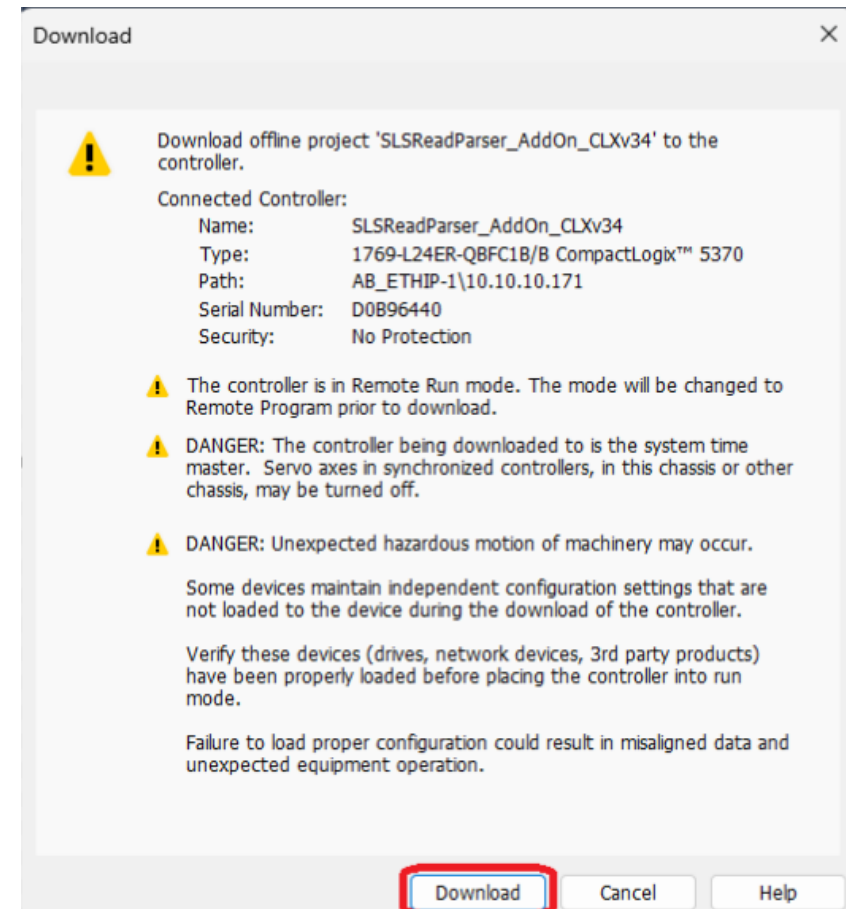
# Download to PLC If Required

- The module has been configured.
- Download the changes to the PLC by clicking the arrow on the 'Controller Status' dropdown menu and selecting the 'Download' menu item.



# Download to PLC If Required (cont.)

- A window will come up asking you to confirm the download.
- Click <Download>.

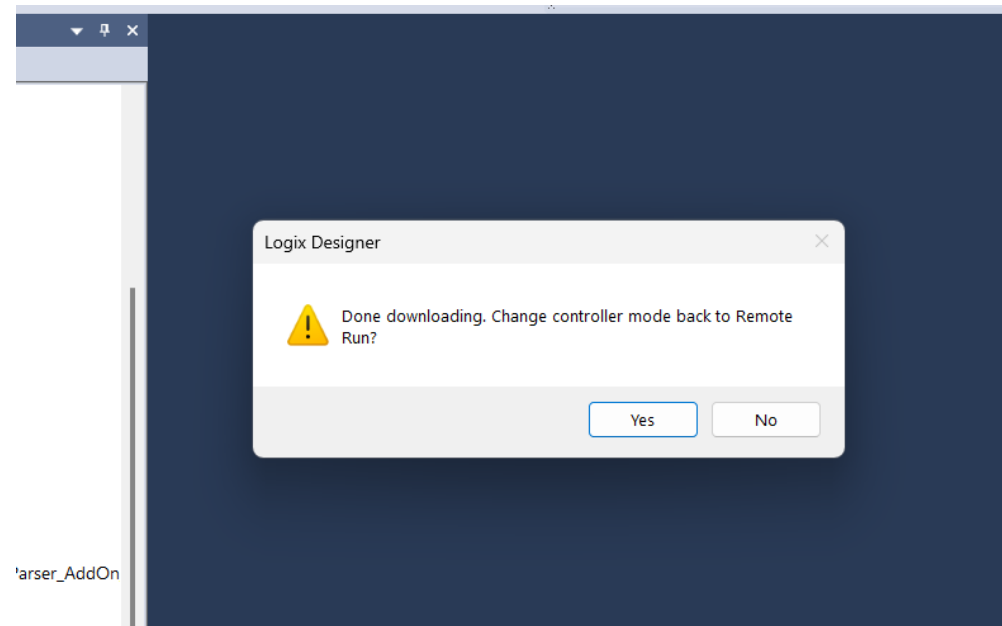




# Download to PLC If Required (cont.)

---

- When the download is complete a window will come up asking you if you want to put the controller back in run mode.
- Click <Yes>.



# Viewing Raw Data From SLS

- Once the PLC is in Run Mode, open the 'Controller Tags' window. Expand the module input tags. Change the display style of the 'Data' array (SLS:I.Data in this case) to 'Hex'. If this list is expanded, the 130 received bytes are displayed.

Controller Organizer

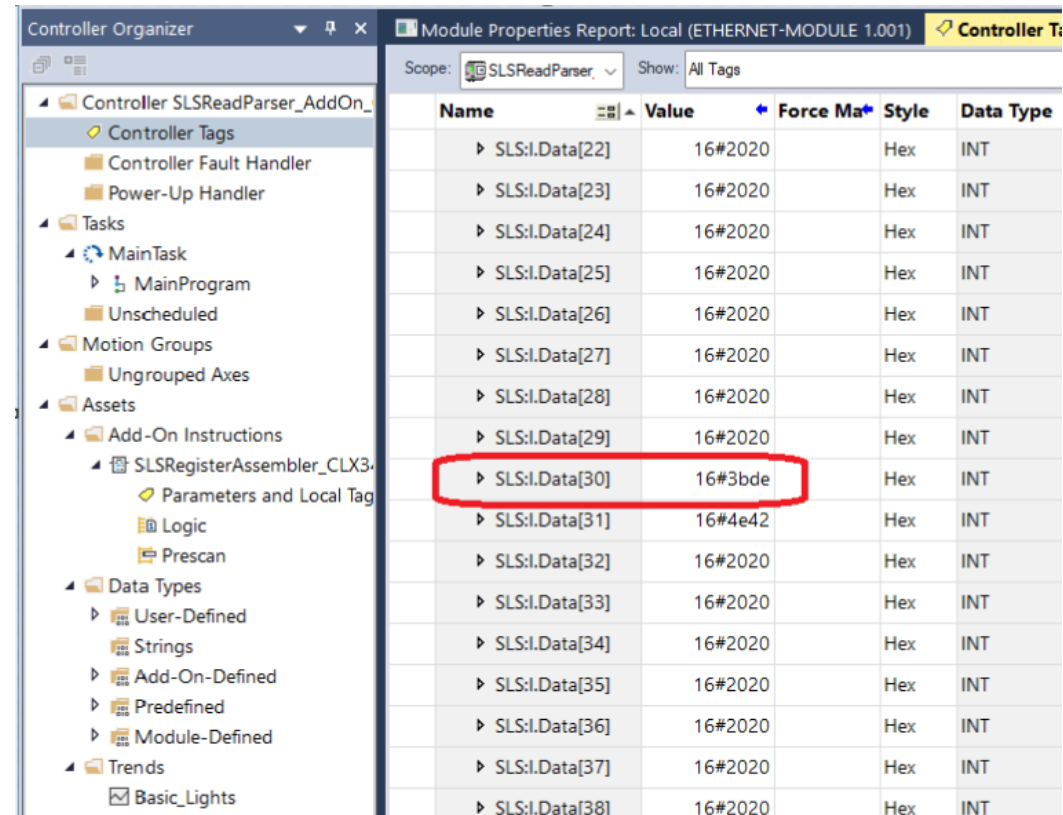
Module Properties Report: Local (ETHERNET-MODULE 1.001) **Controller Tags**

Scope: SLSReadParser, Show: All Tags

Name	Value	Force Ma	Style	Data Type
▲ SLS:I.Data	{...}	{...}	Hex	INT[130]
▶ SLS:I.Data[0]	16#0000		Hex	INT
▶ SLS:I.Data[1]	16#0000		Hex	INT
▶ SLS:I.Data[2]	16#2020		Hex	INT
▶ SLS:I.Data[3]	16#2020		Hex	INT
▶ SLS:I.Data[4]	16#2020		Hex	INT
▶ SLS:I.Data[5]	16#2020		Hex	INT
▶ SLS:I.Data[6]	16#2020		Hex	INT
▶ SLS:I.Data[7]	16#2020		Hex	INT
▶ SLS:I.Data[8]	16#2020		Hex	INT
▶ SLS:I.Data[9]	16#2020		Hex	INT
▶ SLS:I.Data[10]	16#2020		Hex	INT
▶ SLS:I.Data[11]	16#2020		Hex	INT
▶ SLS:I.Data[12]	16#2020		Hex	INT
▶ SLS:I.Data[13]	16#2020		Hex	INT
▶ SLS:I.Data[14]	16#2020		Hex	INT
▶ SLS:I.Data[15]	16#2020		Hex	INT
▶ SLS:I.Data[16]	16#2020		Hex	INT
▶ SLS:I.Data[17]	16#2020		Hex	INT
▶ SLS:I.Data[18]	16#2020		Hex	INT
▶ SLS:I.Data[19]	16#2020		Hex	INT
▶ SLS:I.Data[20]	16#2020		Hex	INT
▶ SLS:I.Data[21]	16#2020		Hex	INT
▶ SLS:I.Data[22]	16#2020		Hex	INT
▶ SLS:I.Data[23]	16#2020		Hex	INT

# Viewing Raw Data From SLS (cont.)

- Scroll down to element 30 (SLS:I.Data[30] in this example).
- This is the element that the raw data for the station 1 resistance is mapped to.
- That value will be continuously updating if the connection is intact.



Controller Organizer

Module Properties Report: Local (ETHERNET-MODULE 1.001)

Scope: SLSReadParser Show: All Tags

Name	Value	Force Ma	Style	Data Type
▸ SLS:I.Data[22]	16#2020		Hex	INT
▸ SLS:I.Data[23]	16#2020		Hex	INT
▸ SLS:I.Data[24]	16#2020		Hex	INT
▸ SLS:I.Data[25]	16#2020		Hex	INT
▸ SLS:I.Data[26]	16#2020		Hex	INT
▸ SLS:I.Data[27]	16#2020		Hex	INT
▸ SLS:I.Data[28]	16#2020		Hex	INT
▸ SLS:I.Data[29]	16#2020		Hex	INT
▸ SLS:I.Data[30]	16#3bde		Hex	INT
▸ SLS:I.Data[31]	16#4e42		Hex	INT
▸ SLS:I.Data[32]	16#2020		Hex	INT
▸ SLS:I.Data[33]	16#2020		Hex	INT
▸ SLS:I.Data[34]	16#2020		Hex	INT
▸ SLS:I.Data[35]	16#2020		Hex	INT
▸ SLS:I.Data[36]	16#2020		Hex	INT
▸ SLS:I.Data[37]	16#2020		Hex	INT
▸ SLS:I.Data[38]	16#2020		Hex	INT