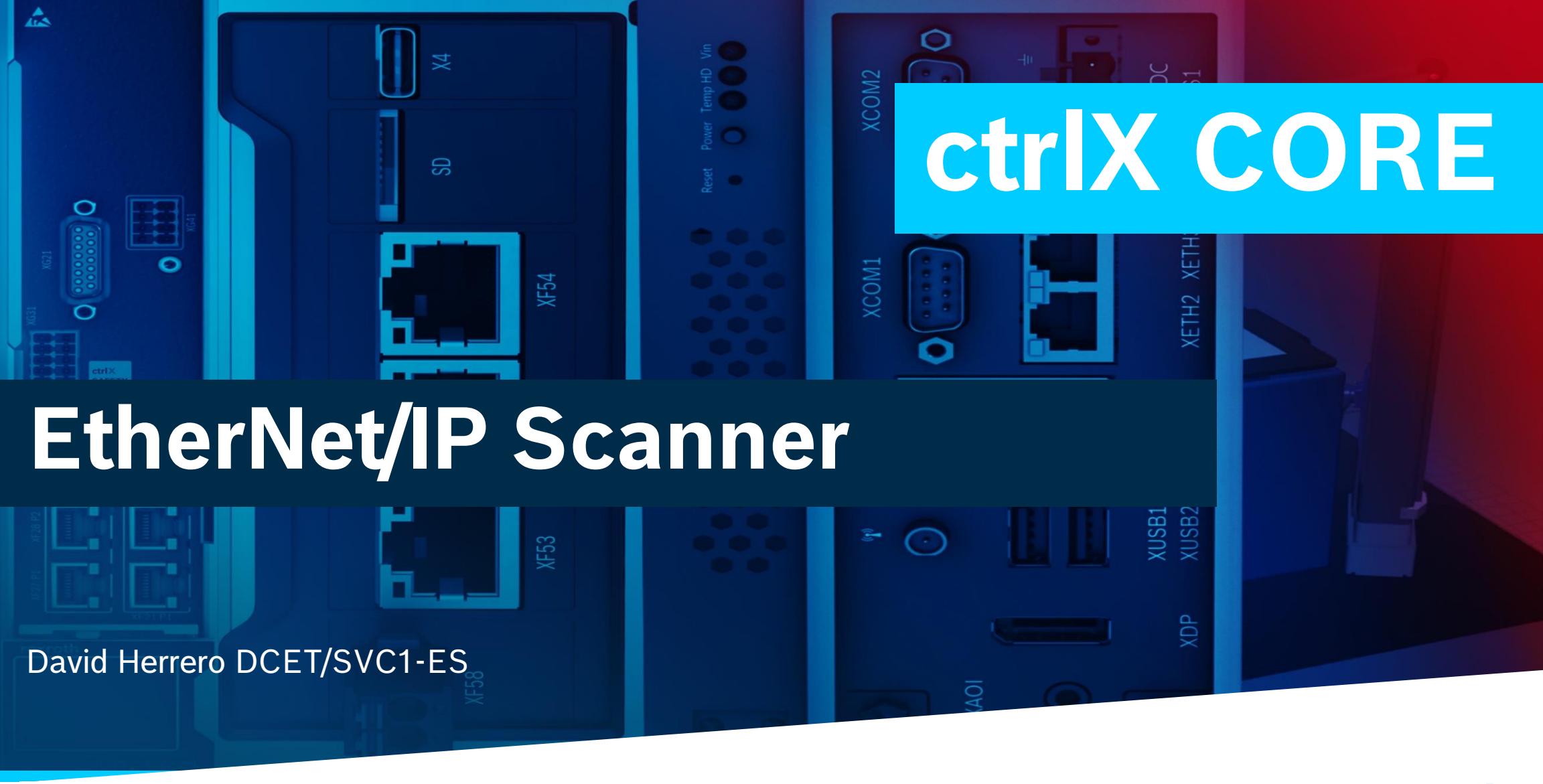

ctrlX CORE

EtherNet/IP Scanner

David Herrero DCET/SVC1-ES

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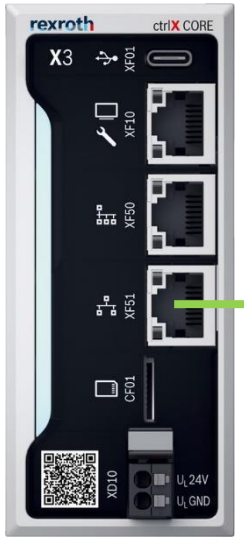
TOPOLOGIA



EtherNet/IP

Scanner
XF51
192.168.2.1

Adapter
X7E5
192.168.2.5

Adapter
X24/X25
192.168.2.6

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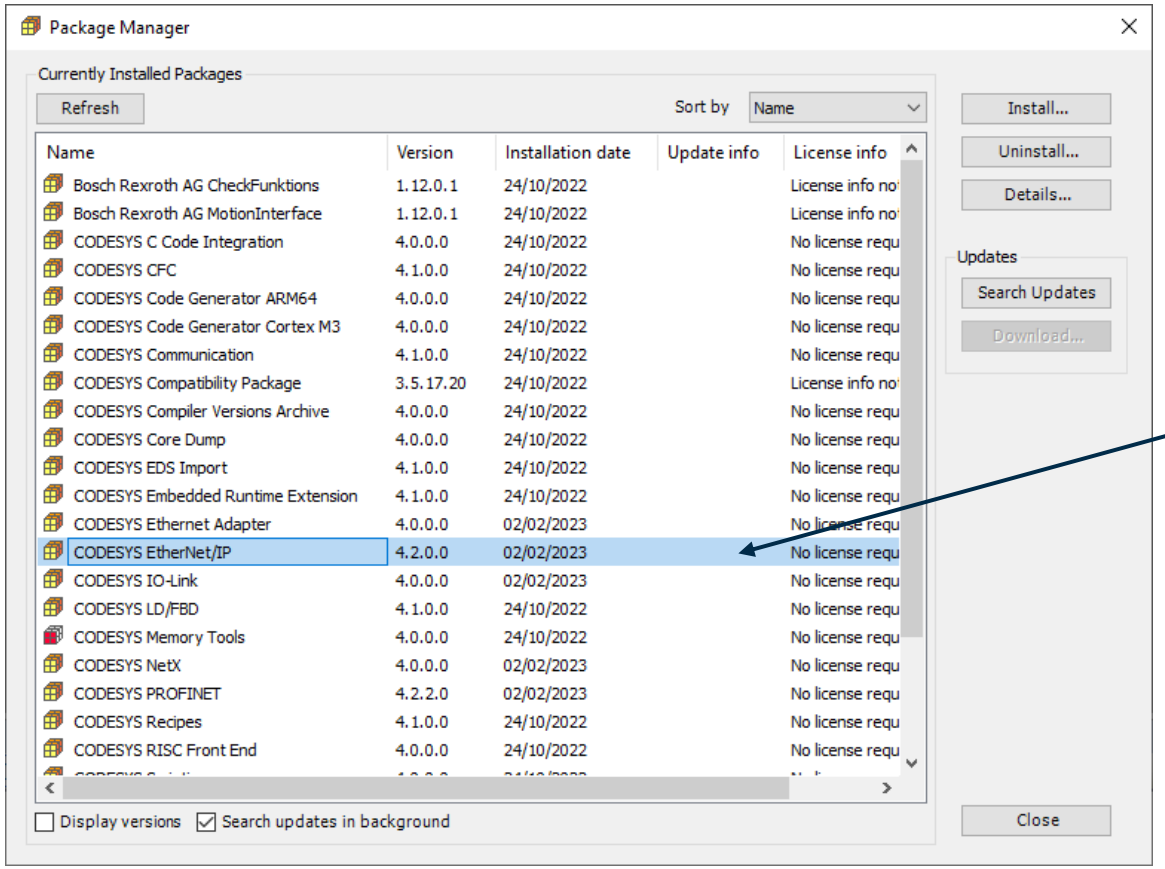
TERMINOLOGIA

Término	Descripción
Scanner	Maestro
Adapter	Esclavo
RPI (Requested Packet Interval)	Tiempo de envío/recibo de datos I/O
Originator → Target (Consumption)	Salidas
Target → Originator (Production)	Entradas

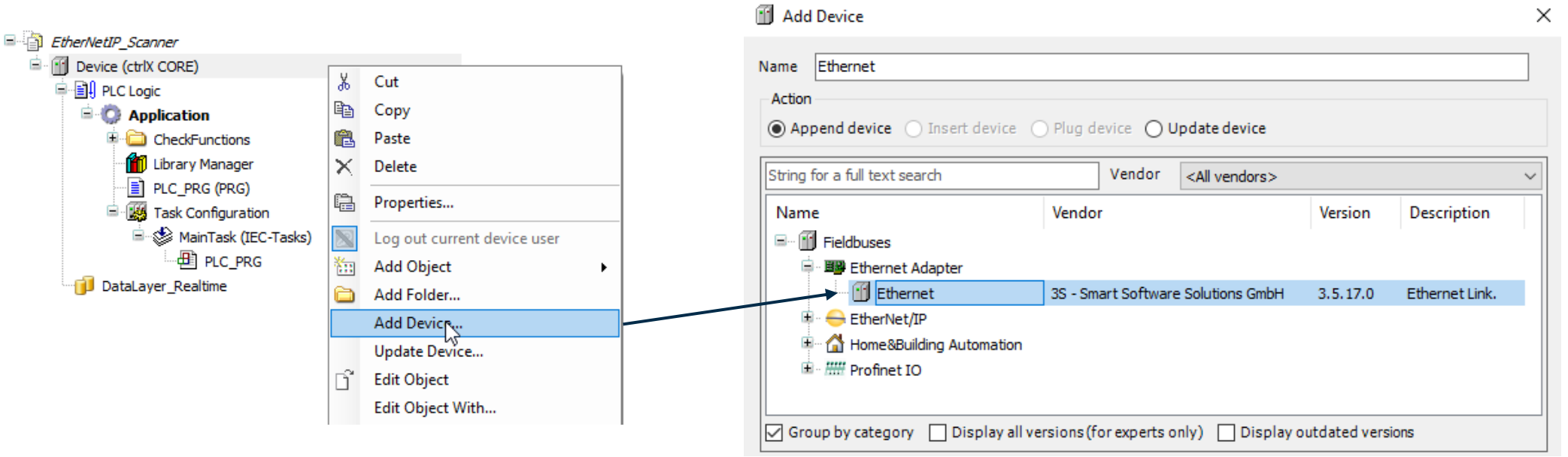
ctrlX PLC

Instalar el package CODESYS EtherNet/IP Scanner



ctrlX PLC

Añadir el dispositivo Ethernet



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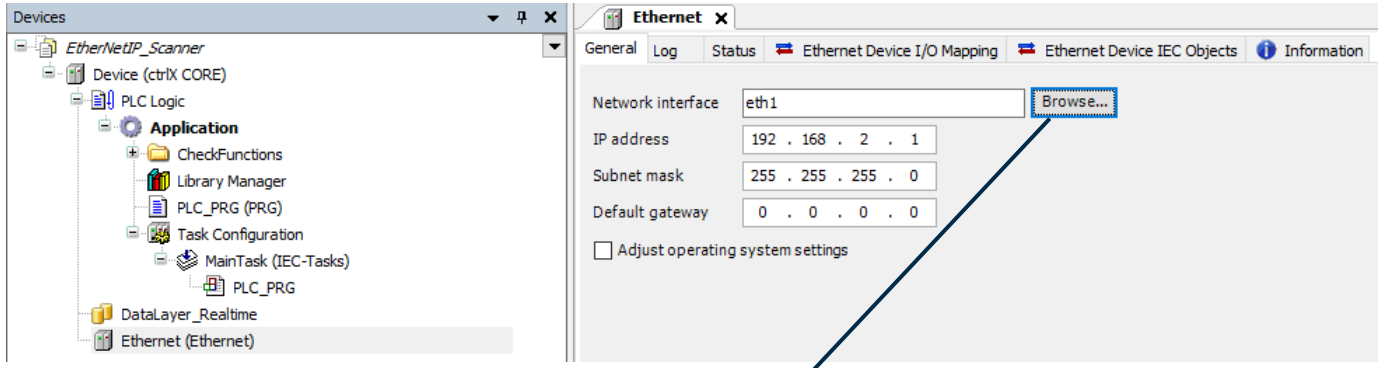
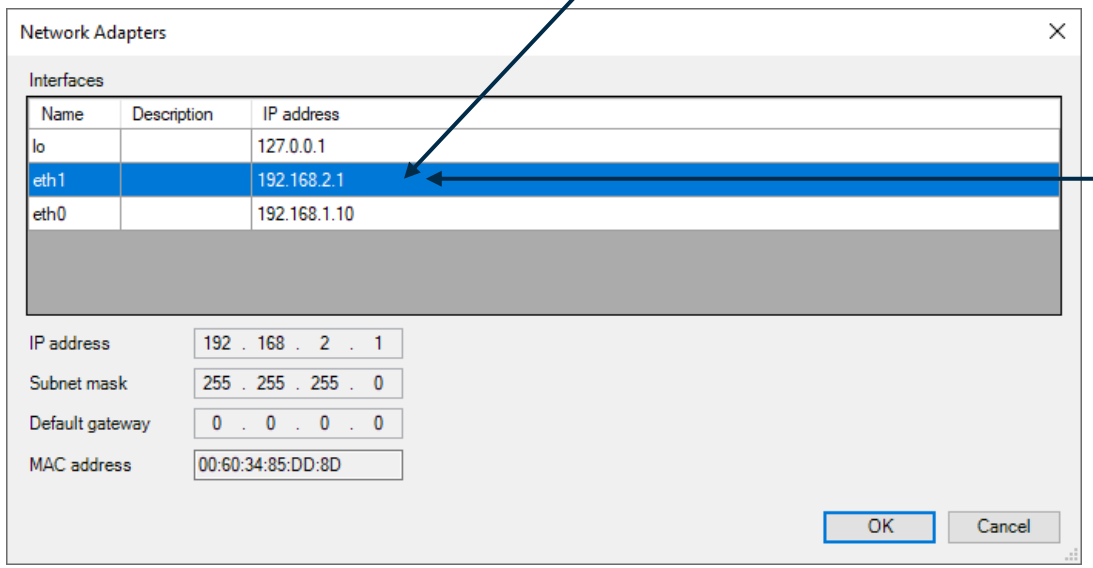
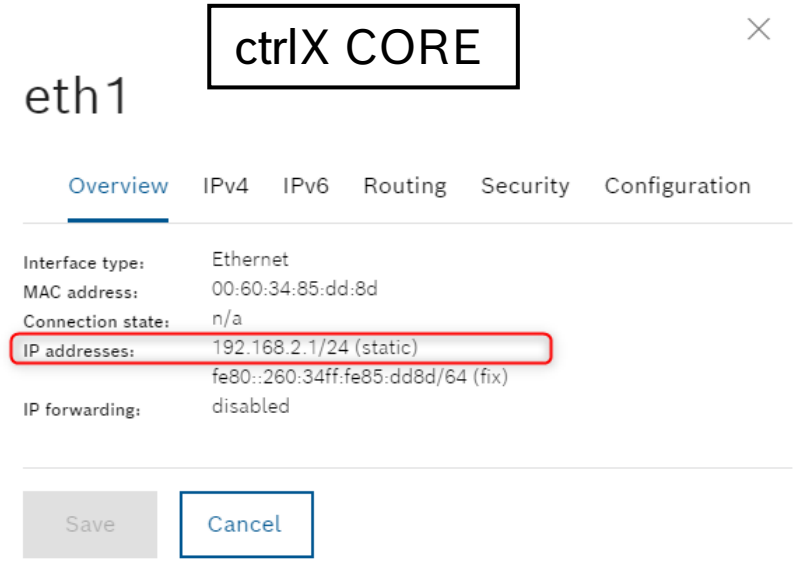
Asignar a Ethernet el puerto de red del conector XF51 del ctrlX CORE (eth1)

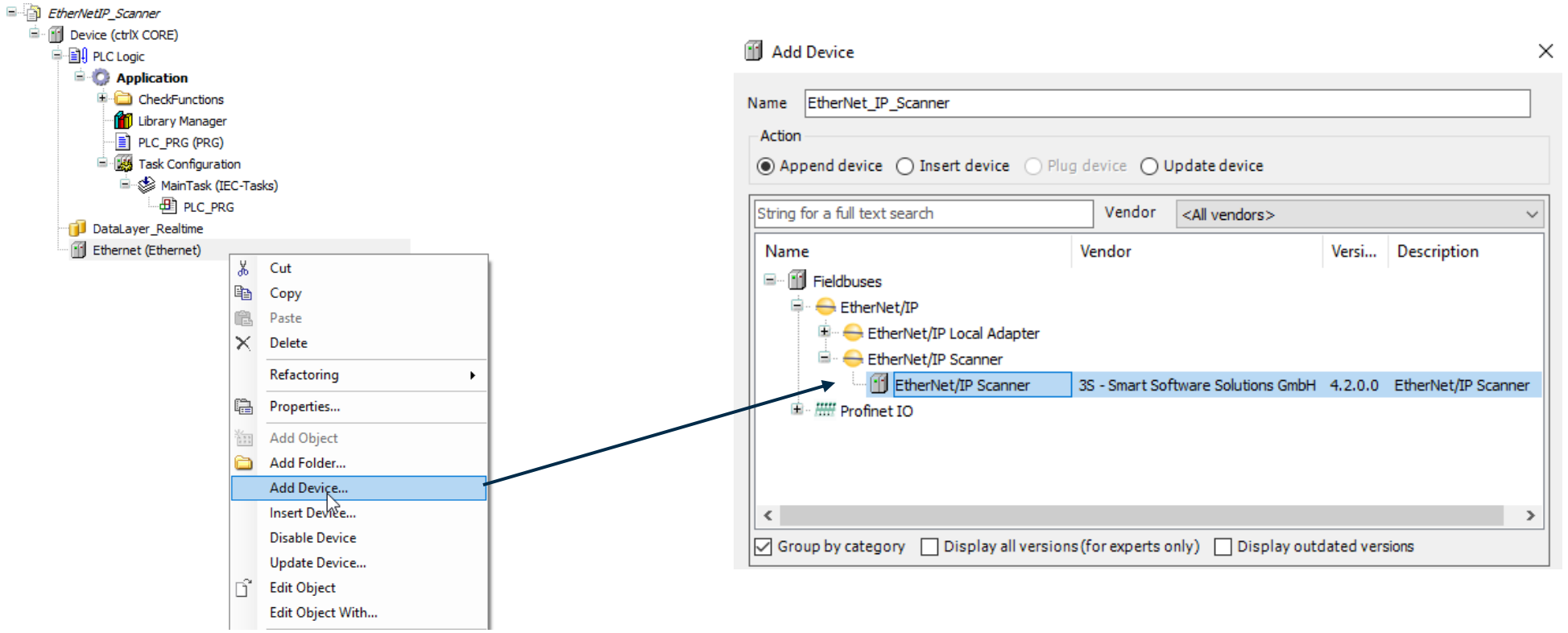






ctrlX PLC

Añadir el dispositivo EtherNet/IP Scanner



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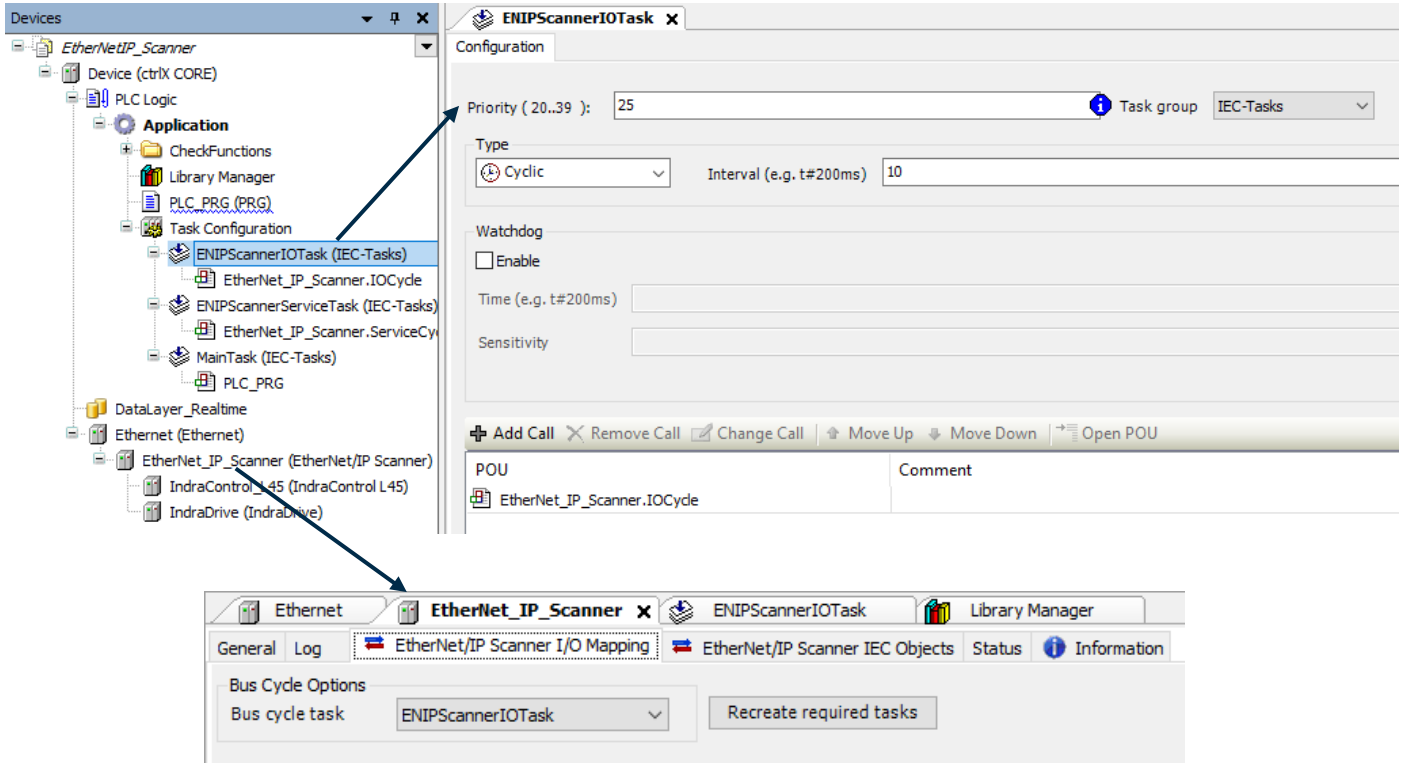
La prioridad de la tarea ENIPScannerIOTask tiene que estar entre 20 y 39 y ser inferior a la tarea ENIPScannerServiceTask. Por defecto está en 0 y da error. Esta tarea está asociada al EtherNet/IP Scanner.



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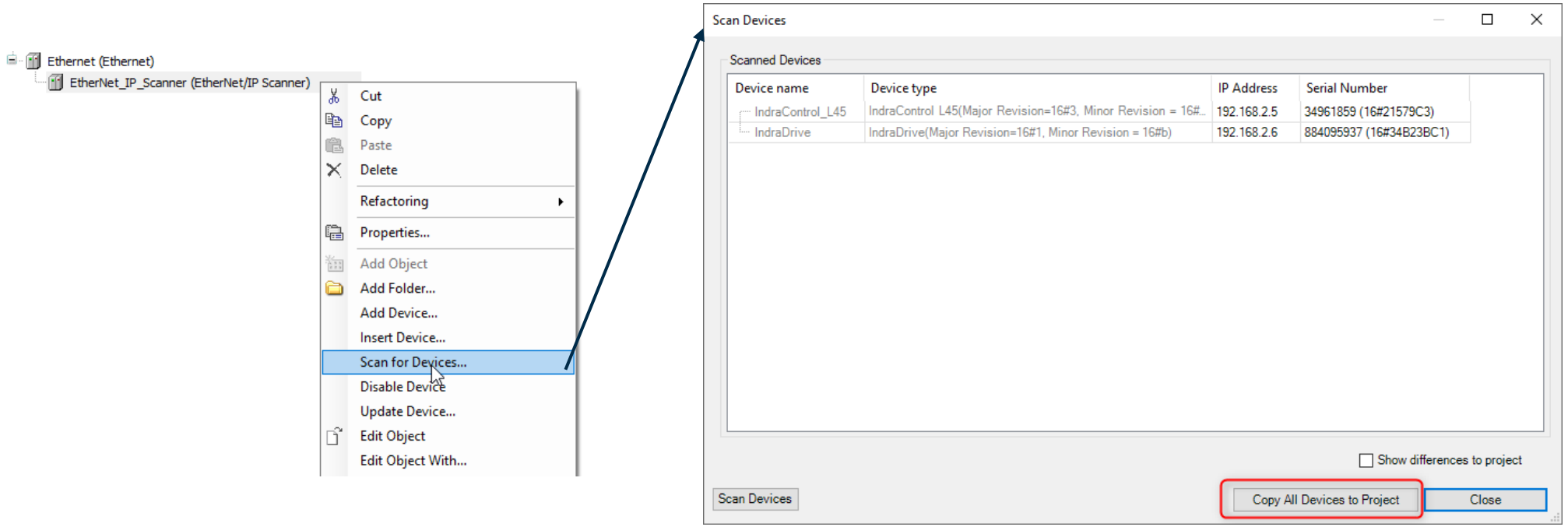
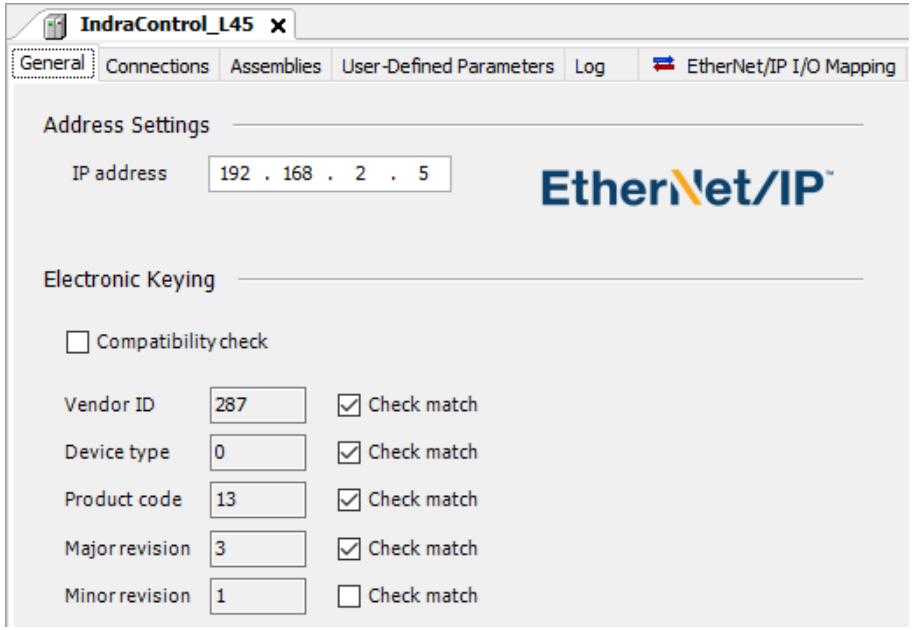
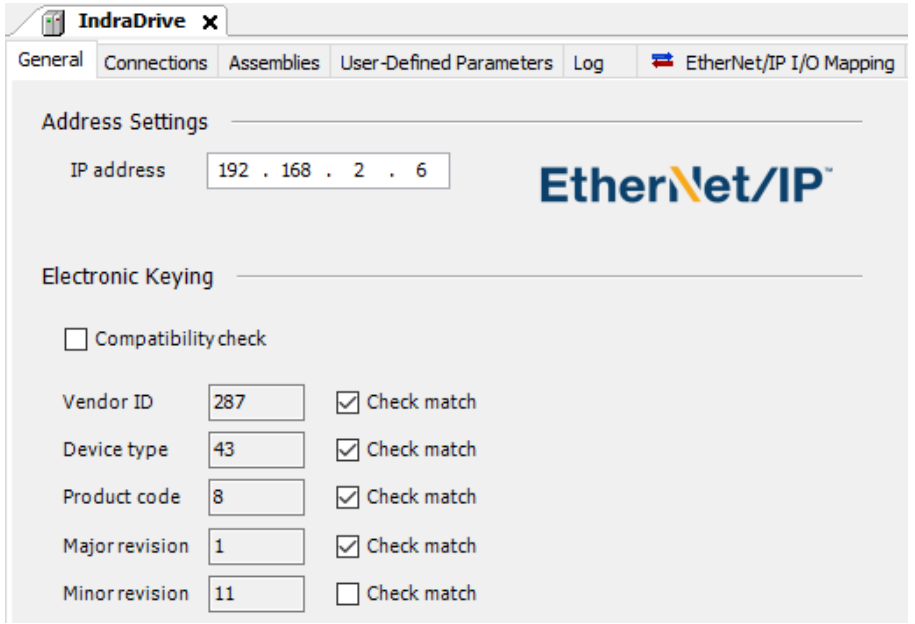
Añadir o escanear los esclavos. Es necesario tener instalados los .eds correspondientes.



ctrlX PLC

Comprobar la IP de los esclavos





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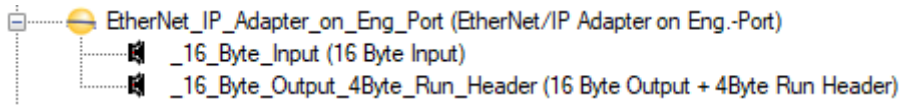
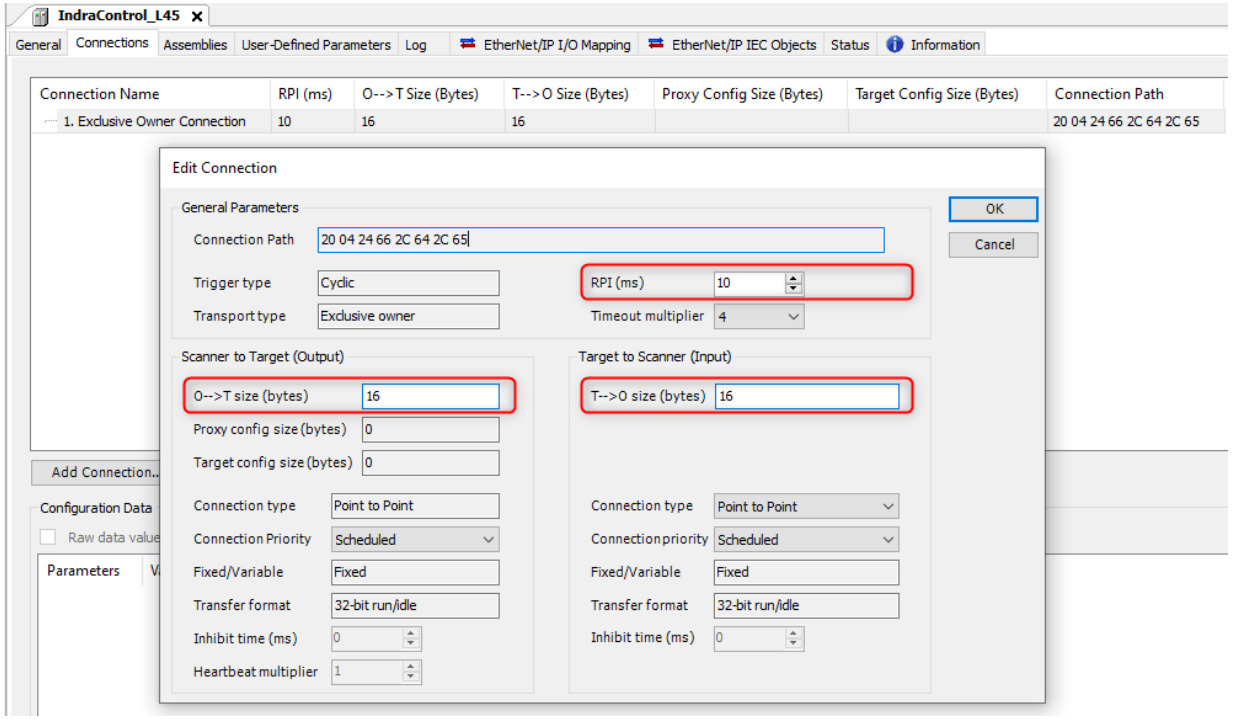
Vincular las palabras de entrada y salida del esclavo L45

Configuración en el esclavo



Configuración en el maestro

El RPI tiene que ser múltiplo del tiempo configurado en la tarea ENIPScannerIOTask



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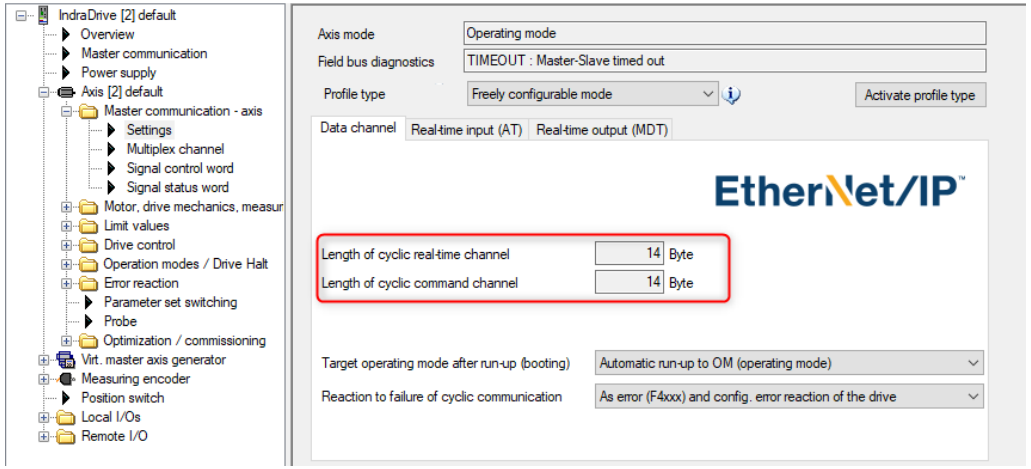
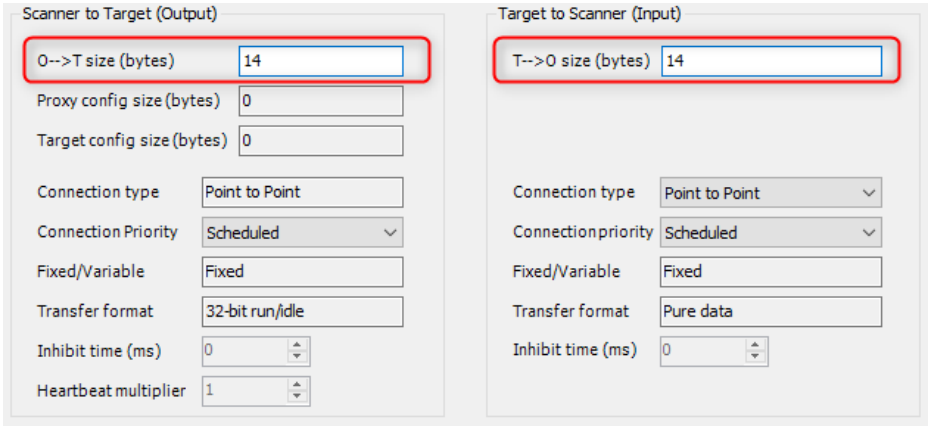
Vincular las palabras de entrada y salida del esclavo Indradrive

Configuración en el esclavo



Configuración en el maestro



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El tamaño de las palabras se puede customizar con el fin de facilitar la asignación de las mismas.

Para el IndraDrive:

Data channel | Real-time input (AT) | Real-time output (MDT)

No.	Config list cyclic command data channel
1	P-0-4077 : Field bus: Control word
2	S-0-0282 : Positioning command value
3	S-0-0259 : Positioning velocity
4	S-0-0000 : < empty >
5	S-0-0000 : < empty >
6	--

Data channel | Real-time input (AT) | Real-time output (MDT)

No.	Config list cyclic actual data channel
1	P-0-4078 : Field bus: Status word
2	S-0-0386 : Active position feedback value
3	S-0-0040 : Velocity feedback value of encoder 1
4	S-0-0390 : Diagnostic message number
5	--

IndraDrive

General | Connections | Assemblies | User-Defined Parameters | Log | EtherNet/IP I/O Mapping | EtherNet/IP IEC Objects | Status | Information

Connections

Connection Name	O-->T Size (Bytes)	T-->O Size (Bytes)	Proxy Config Size (Bytes)	Target Config Size (Bytes)
1. Exclusive Owner Connection	14	14		

Consuming Assembly "IndraDrive_InputData" (O-->T)

Add | Delete | Move Up | Move Down

Name	Data Type	Bit Length	Unit	Help String
Field bus: Control word	WORD	16		
Position command value	DWORD	32		
Positioning velocity	DWORD	32		
Dummy (not used)	WORD	16		
Dummy (not used)	WORD	16		

Producing Assembly "IndraDrive_OutputData" (T-->O)

Add | Delete | Move Up | Move Down

Name	Data Type	Bit Length	Unit	Help Strir
Field bus: Status word	WORD	16		
Active position feedback value	DWORD	32		
Velocity feedback value	DWORD	32		
Diagnostic message number	DWORD	32		

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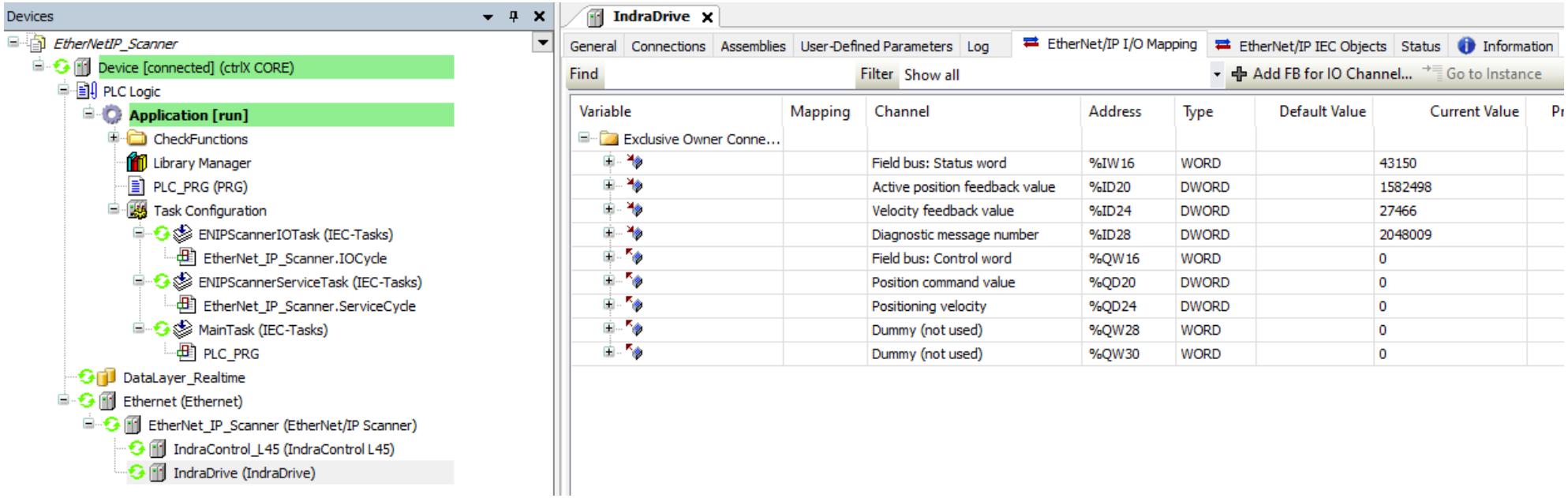
Monitorización de variables I/O



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Ejemplo de diagnóstico de maestro y esclavos

PLC_PRG

Device.Application.PLC_PRG

Expression	Type	Value
IPAddress_IndraDrive	ARRAY [0..3] OF BYTE	
IPAddress_IndraDrive[0]	BYTE	192
IPAddress_IndraDrive[1]	BYTE	168
IPAddress_IndraDrive[2]	BYTE	2
IPAddress_IndraDrive[3]	BYTE	6

```
1
2   //Diagnóstico maestro
3   EtherNet_IP_Scanner.eError NO_ERROR ;  //Maestro en error
4   EtherNet_IP_Scanner.eState RUNNING ;   //Estado actual
5   EtherNet_IP_Scanner.xReset FALSE ;     //Ejecutar reset
6
7   //Diagnóstico esclavo IndraDrive
8   IndraDrive.eState RUNNING ;                //Estado (RUNNING, ERROR, RESET...)
9   IndraDrive.xDiagnosticAvailable FALSE ;    //Diagnostico disponible
10  IndraDrive.sDiagString 'Connection' ;      //Diagnóstico
11  IPAddress_IndraDrive := IndraDrive.IPAddress;  //IP address
12  IndraDrive.xReset FALSE ;              //Ejecutar reset
13  IndraDrive.xAcknowledge FALSE ;        //Ejectutar ack
14  RETURN
```


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