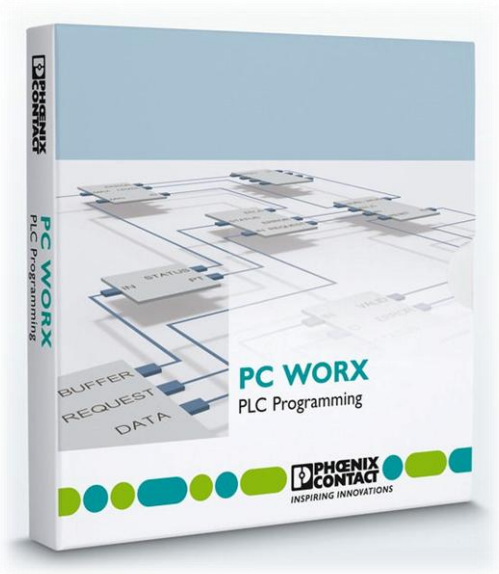
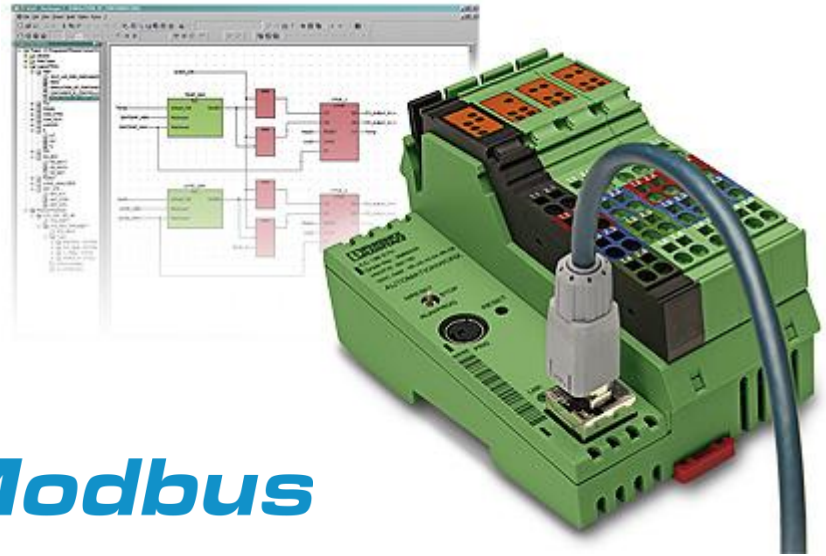
CONFIGURAÇÃO DE COMUNICAÇÃO MODBUS TCP/IP ENTRE DOIS CONTROLADORES

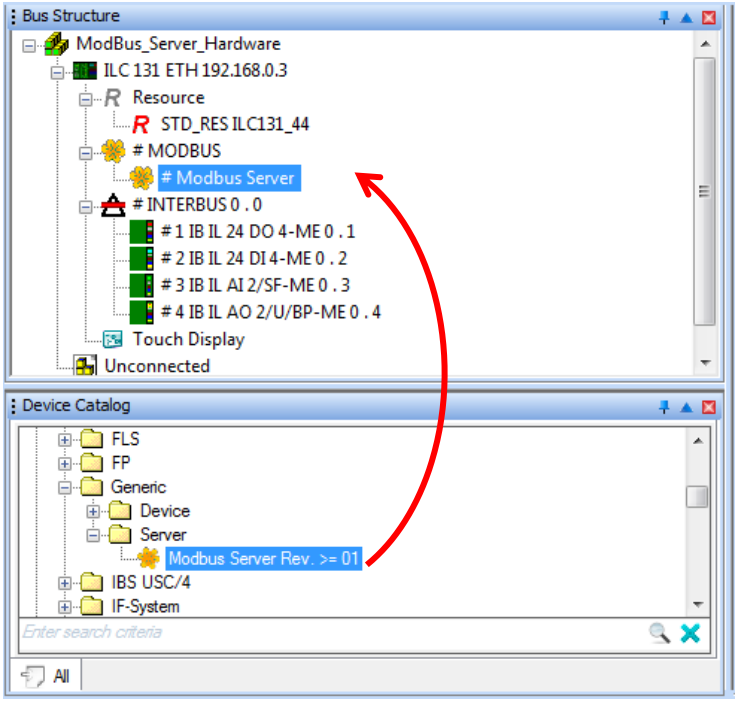




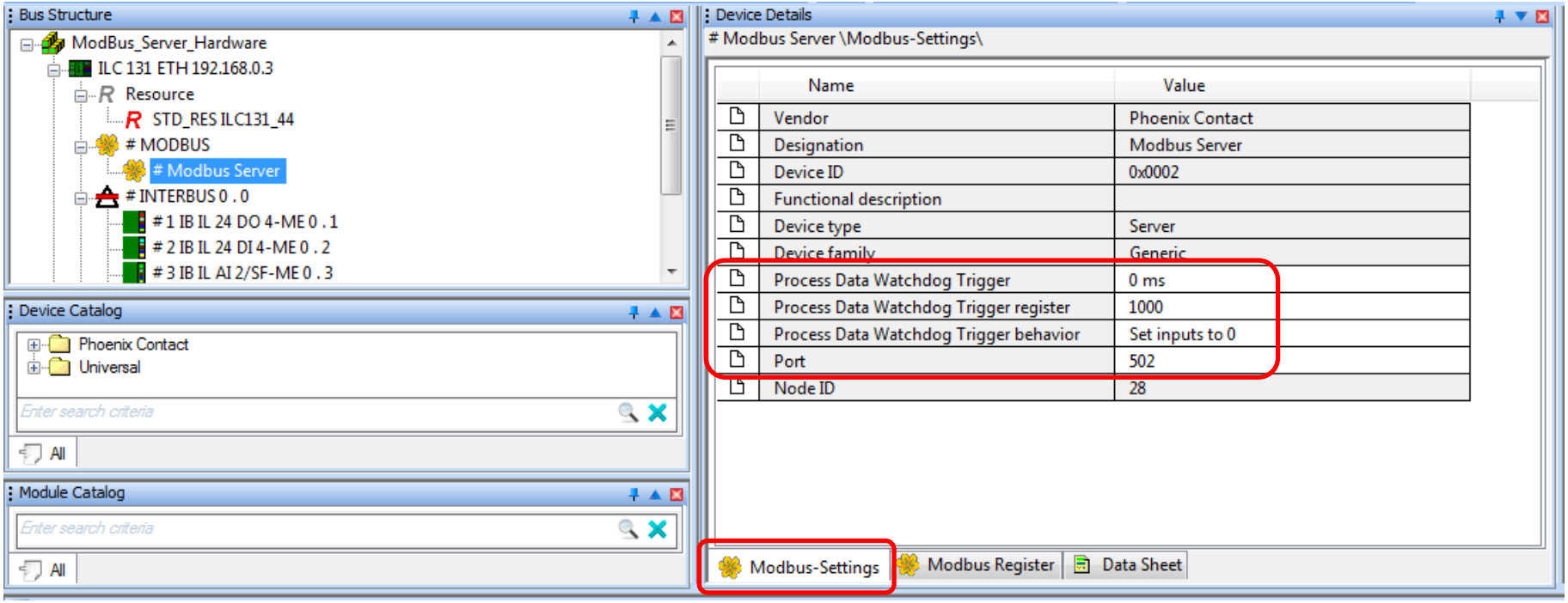
Modbus

Via Modbus TCP/IP Nativo

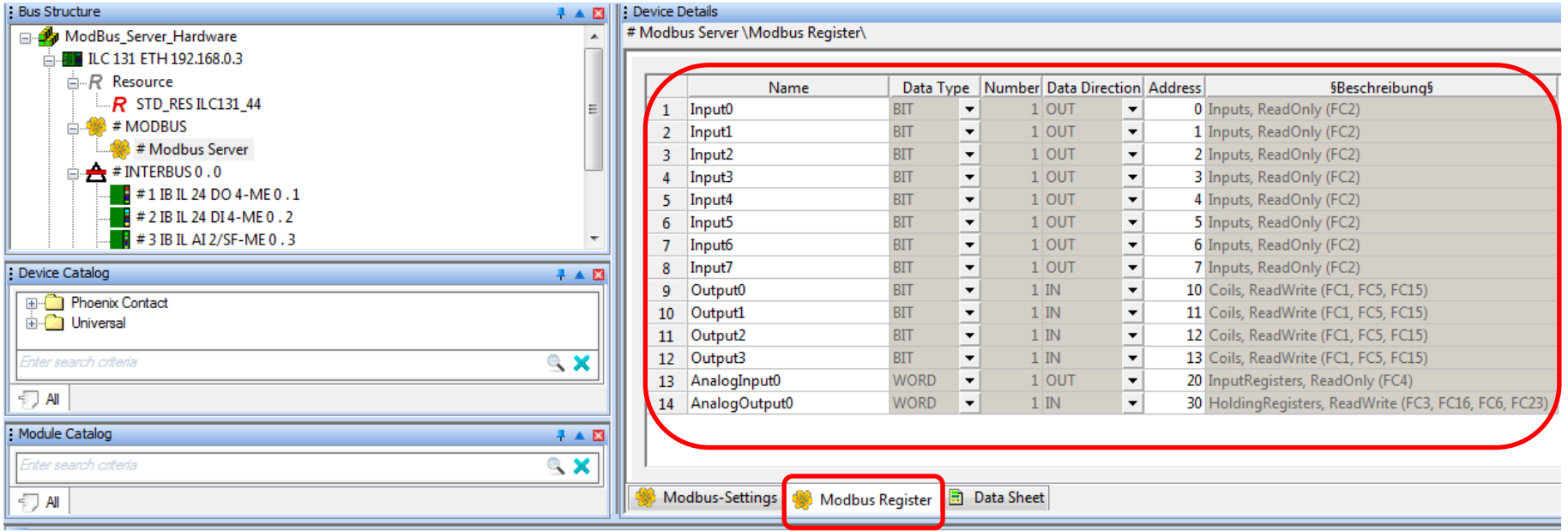
BUS CONFIGURATION – Adicionar um drive genérico de MODBUS Server(Escravo)



BUS CONFIGURATION – Configuração do drive MODBUS Server(Escravo)



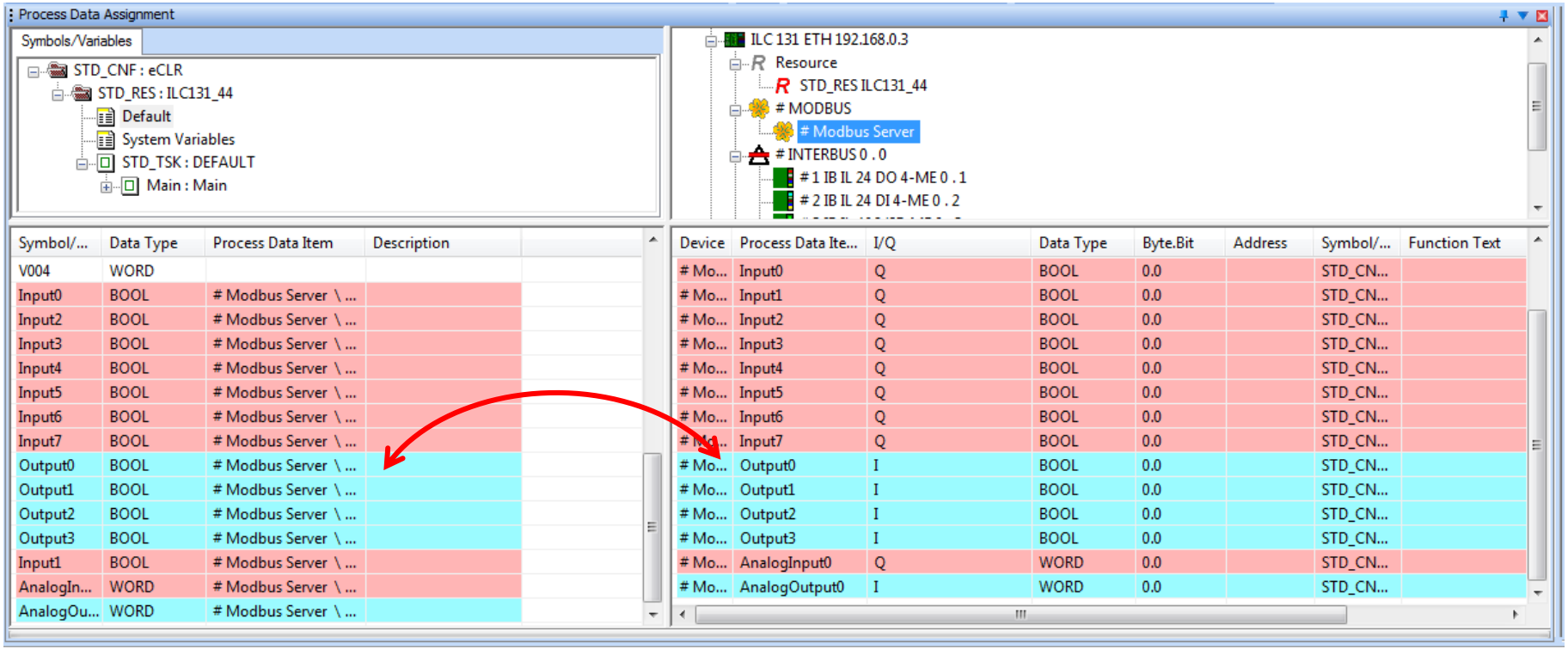
BUS CONFIGURATION – Criação de mapa de registros e respectivas funções do MODBUS Server(Escravo)



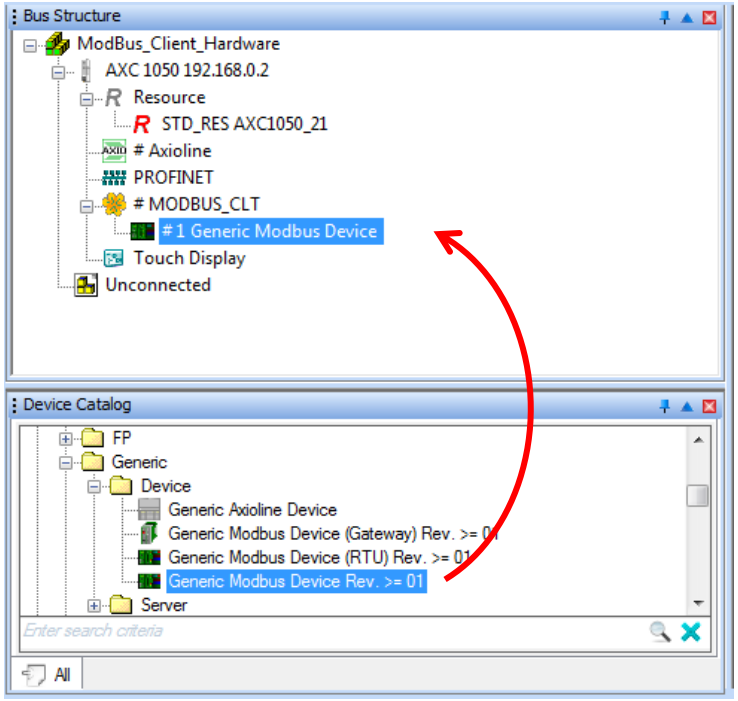
	Name	Data Type	Number	Data Direction	Address	§Beschreibung§
1	Input0	BIT	1	OUT	0	Inputs, ReadOnly (FC2)
2	Input1	BIT	1	OUT	1	Inputs, ReadOnly (FC2)
3	Input2	BIT	1	OUT	2	Inputs, ReadOnly (FC2)
4	Input3	BIT	1	OUT	3	Inputs, ReadOnly (FC2)
5	Input4	BIT	1	OUT	4	Inputs, ReadOnly (FC2)
6	Input5	BIT	1	OUT	5	Inputs, ReadOnly (FC2)
7	Input6	BIT	1	OUT	6	Inputs, ReadOnly (FC2)
8	Input7	BIT	1	OUT	7	Inputs, ReadOnly (FC2)
9	Output0	BIT	1	IN	10	Coils, ReadWrite (FC1, FC5, FC15)
10	Output1	BIT	1	IN	11	Coils, ReadWrite (FC1, FC5, FC15)
11	Output2	BIT	1	IN	12	Coils, ReadWrite (FC1, FC5, FC15)
12	Output3	BIT	1	IN	13	Coils, ReadWrite (FC1, FC5, FC15)
13	AnalogInput0	WORD	1	OUT	20	InputRegisters, ReadOnly (FC4)
14	AnalogOutput0	WORD	1	IN	30	HoldingRegisters, ReadWrite (FC3, FC16, FC6, FC23)

*** Para adicinar um novo registro, basta clicar com o botão direito na área em branco do quadro da tabela de registros e ir na opção “Add”**

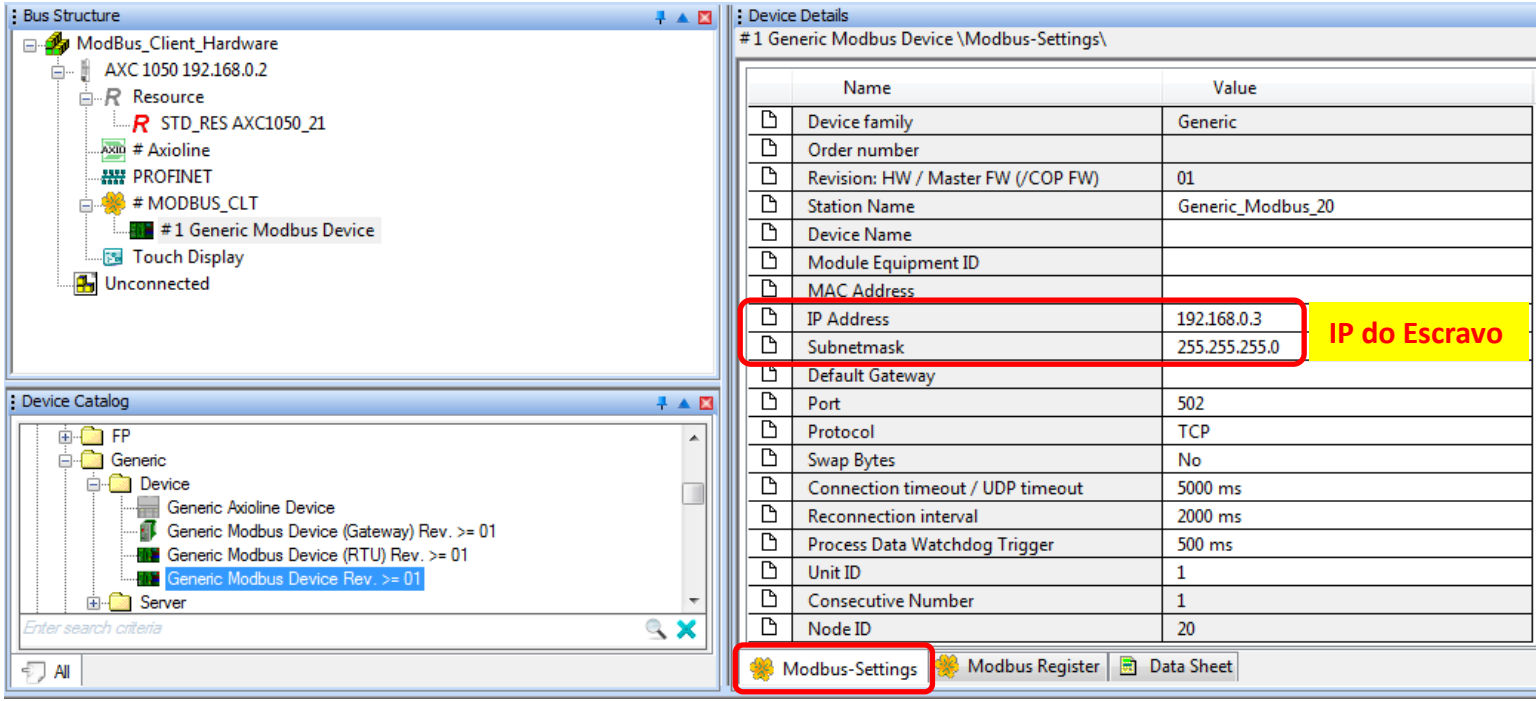
PROCESS DATA– Vincular as variáveis do programa com o mapa de registros do MODBUS Server(Escravo)



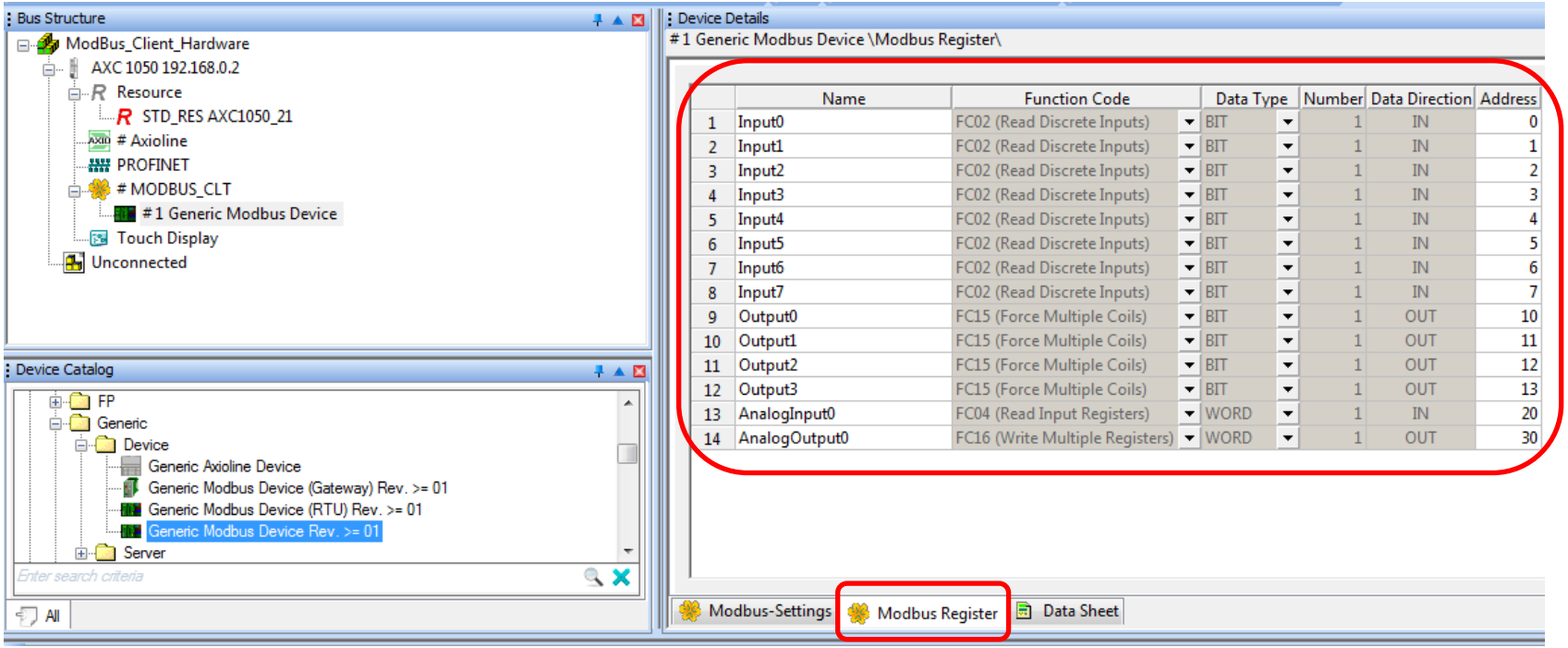
BUS CONFIGURATION – Adicionar um drive genérico de MODBUS Client (Mestre)



BUS CONFIGURATION – Configuração do drive MODBUS Client (Mestre)



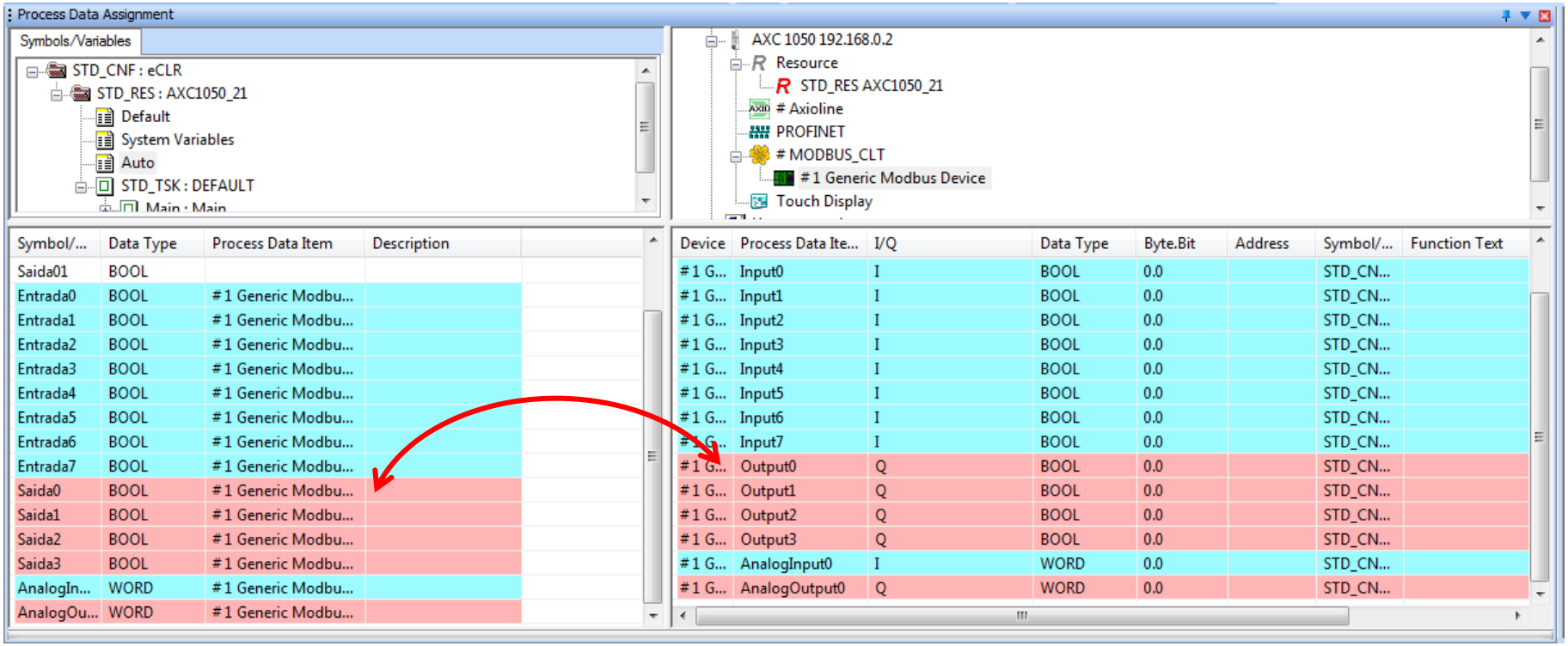
BUS CONFIGURATION – Criação de mapa de registros e respectivas funções do MODBUS Client (Mestre)



	Name	Function Code	Data Type	Number	Data Direction	Address
1	Input0	FC02 (Read Discrete Inputs)	BIT	1	IN	0
2	Input1	FC02 (Read Discrete Inputs)	BIT	1	IN	1
3	Input2	FC02 (Read Discrete Inputs)	BIT	1	IN	2
4	Input3	FC02 (Read Discrete Inputs)	BIT	1	IN	3
5	Input4	FC02 (Read Discrete Inputs)	BIT	1	IN	4
6	Input5	FC02 (Read Discrete Inputs)	BIT	1	IN	5
7	Input6	FC02 (Read Discrete Inputs)	BIT	1	IN	6
8	Input7	FC02 (Read Discrete Inputs)	BIT	1	IN	7
9	Output0	FC15 (Force Multiple Coils)	BIT	1	OUT	10
10	Output1	FC15 (Force Multiple Coils)	BIT	1	OUT	11
11	Output2	FC15 (Force Multiple Coils)	BIT	1	OUT	12
12	Output3	FC15 (Force Multiple Coils)	BIT	1	OUT	13
13	AnalogInput0	FC04 (Read Input Registers)	WORD	1	IN	20
14	AnalogOutput0	FC16 (Write Multiple Registers)	WORD	1	OUT	30

*** Para adicinar um novo registro, basta clicar com o botão direito na área em branco do quadro da tabela de registros e ir na opção “Add”**

PROCESS DATA– Vincular as variáveis do programa com o mapa de registros do MODBUS Client (Mestre)



Exemplo Programa Main - Escravo

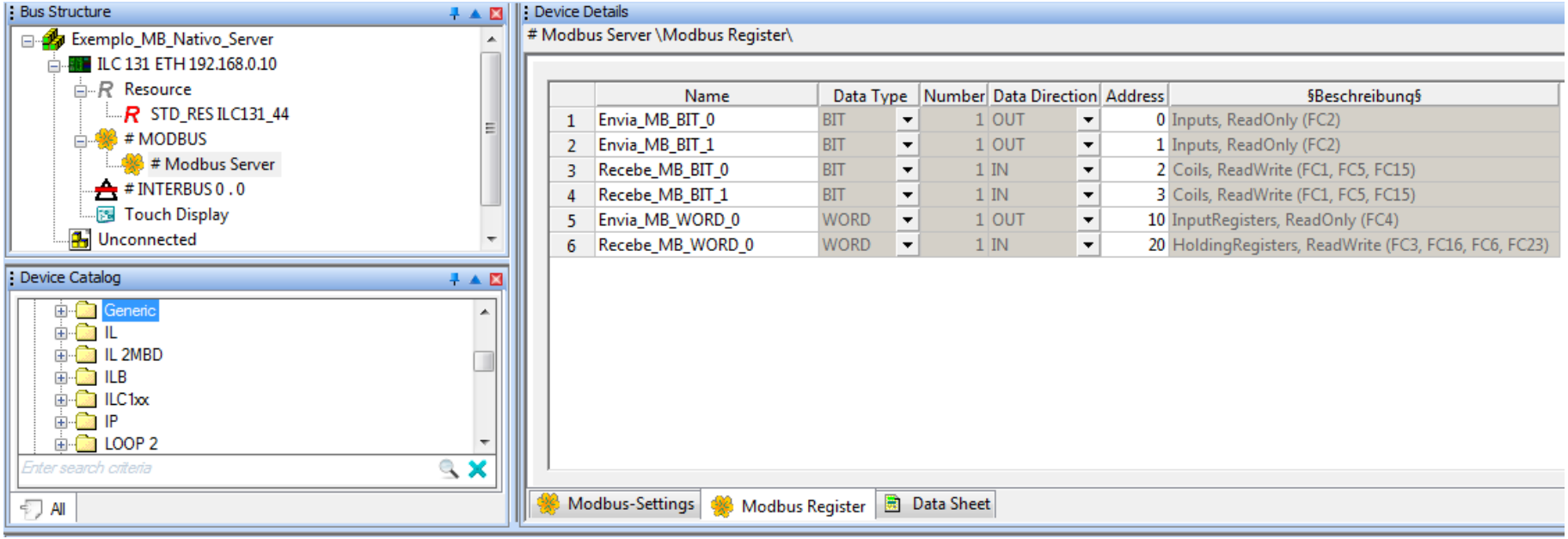
(*##### Link de variaveis do PLC escravo com registro Modbus OUT #####*)

ONBOARD_INPUT_BIT0 ——— Envia_Mestre_Digital_0
ONBOARD_INPUT_BIT1 ——— Envia_Mestre_Digital_1
CONTA_PECAS ——— Envia_Mestre_Contador_0

(*##### Link de variaveis do PLC escravo com registro Modbus IN #####*)

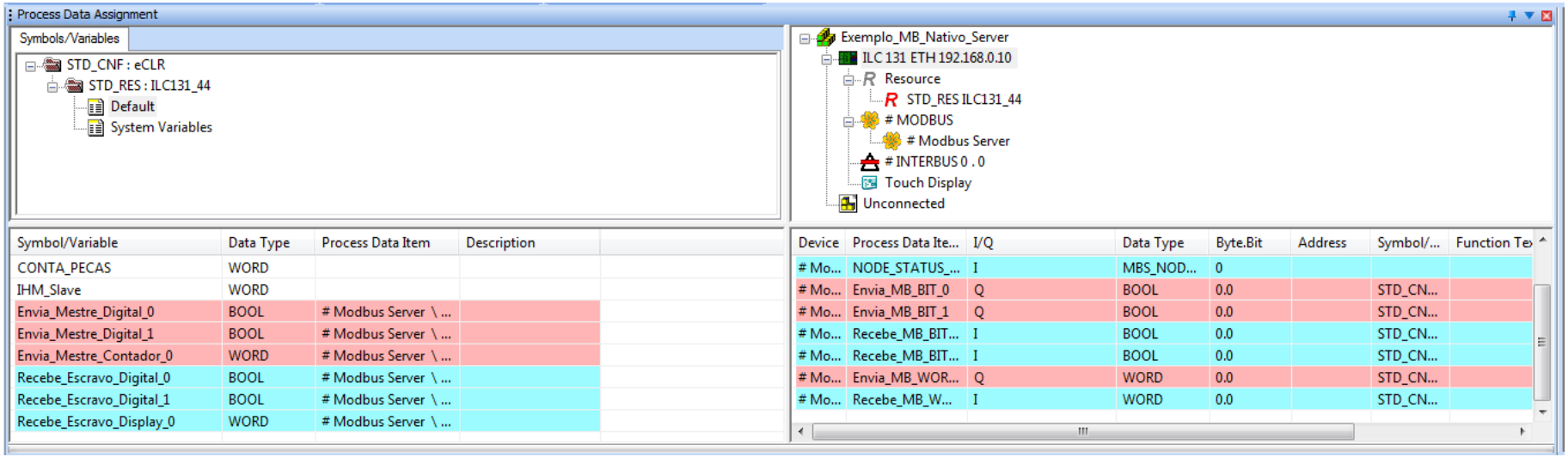
Recebe_Escravo_Digital_0 ——— ONBOARD_OUTPUT_BIT0
Recebe_Escravo_Digital_1 ——— ONBOARD_OUTPUT_BIT1
Recebe_Escravo_Display_0 ——— IHM_Slave

Exemplo Bus Configuration – Modbus Registers - Escravo



	Name	Data Type	Number	Data Direction	Address	§Beschreibung§
1	Envia_MB_BIT_0	BIT	1	OUT	0	Inputs, ReadOnly (FC2)
2	Envia_MB_BIT_1	BIT	1	OUT	1	Inputs, ReadOnly (FC2)
3	Recebe_MB_BIT_0	BIT	1	IN	2	Coils, ReadWrite (FC1, FC5, FC15)
4	Recebe_MB_BIT_1	BIT	1	IN	3	Coils, ReadWrite (FC1, FC5, FC15)
5	Envia_MB_WORD_0	WORD	1	OUT	10	InputRegisters, ReadOnly (FC4)
6	Recebe_MB_WORD_0	WORD	1	IN	20	HoldingRegisters, ReadWrite (FC3, FC16, FC6, FC23)

Exemplo Process Data - Escravo



Exemplo Programa Main - Mestre

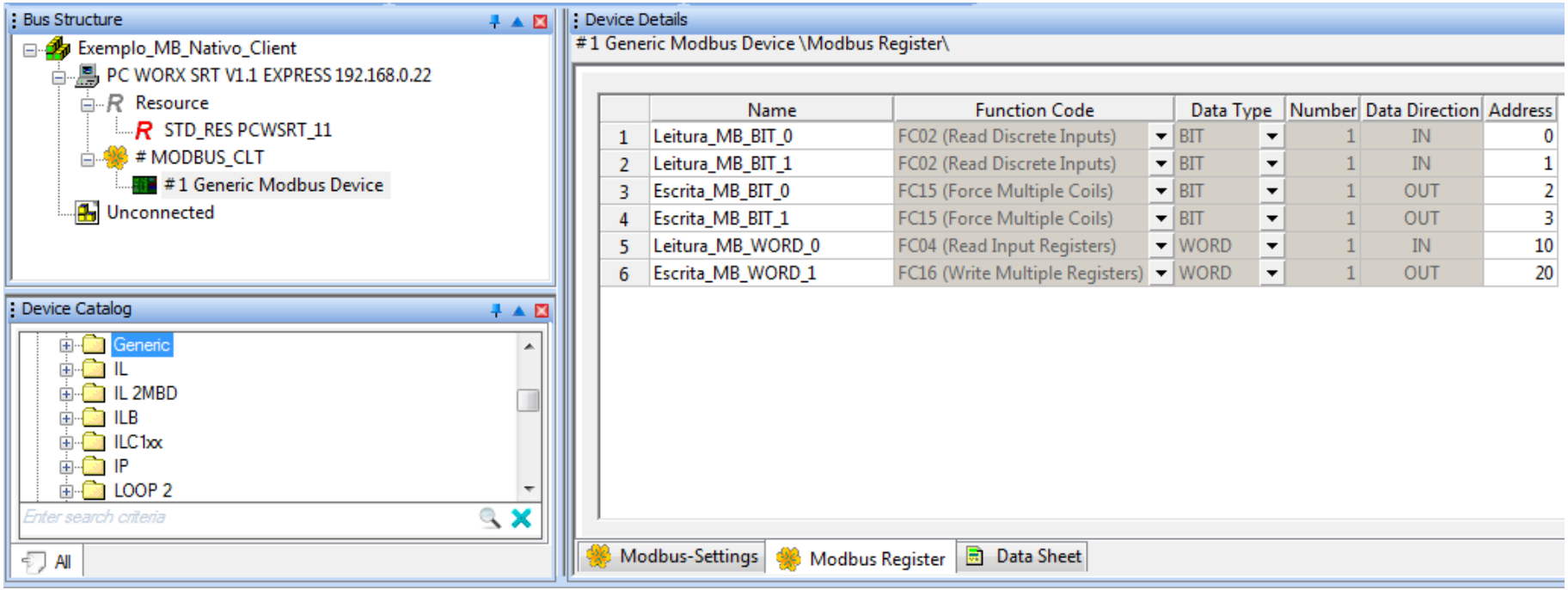
(*##### Link de variáveis com registros de leitura Modubs IN #####*)

Le_Escravo_Digital_0 ——— Led_Sinalizador_0
Le_Escravo_Digital_0 ——— Led_Sinalizador_1
Le_Escravo_Word_0 ——— Word_Sinalizador_0

(*##### Link de variáveis com registros de escrita Modubs OUT #####*)

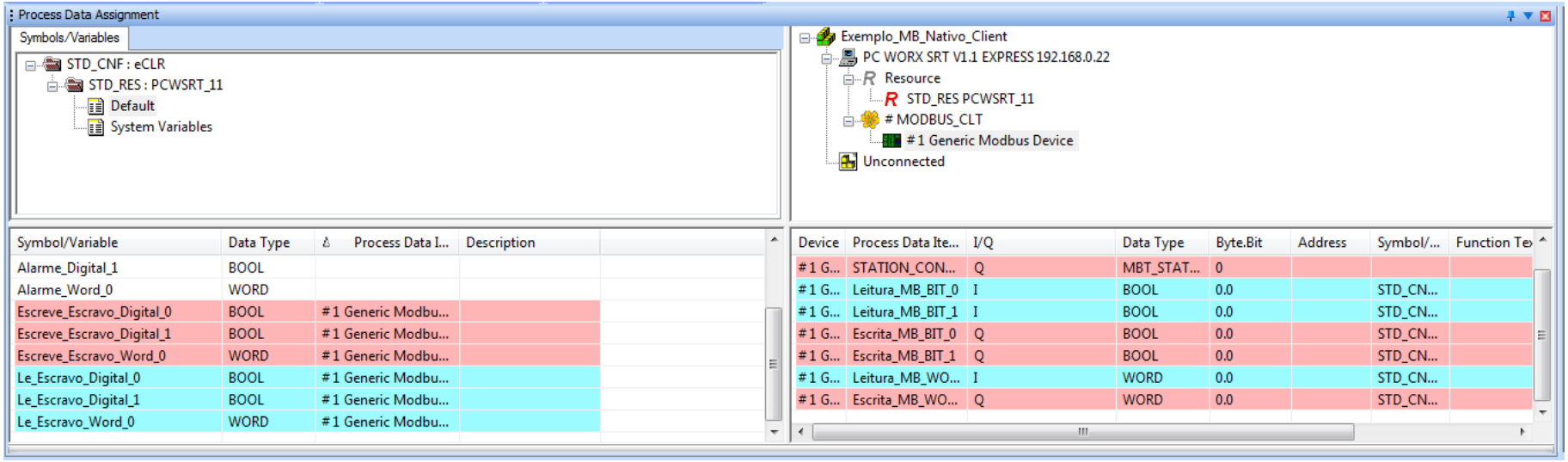
Alarme_Digital_0 ——— Escreve_Escravo_Digital_0
Alarme_Digital_1 ——— Escreve_Escravo_Digital_1
Alarme_Word_0 ——— Escreve_Escravo_Word_0

Exemplo Bus Configuration – Modbus Registers - Mestre



	Name	Function Code	Data Type	Number	Data Direction	Address
1	Leitura_MB_BIT_0	FC02 (Read Discrete Inputs)	BIT	1	IN	0
2	Leitura_MB_BIT_1	FC02 (Read Discrete Inputs)	BIT	1	IN	1
3	Escrita_MB_BIT_0	FC15 (Force Multiple Coils)	BIT	1	OUT	2
4	Escrita_MB_BIT_1	FC15 (Force Multiple Coils)	BIT	1	OUT	3
5	Leitura_MB_WORD_0	FC04 (Read Input Registers)	WORD	1	IN	10
6	Escrita_MB_WORD_1	FC16 (Write Multiple Registers)	WORD	1	OUT	20

Exemplo Process Data - Mestre



Pronto!!!

A comunicação Modbus TCP/IP já está configurada.
Agora você já pode iniciar a programação.

INSPIRING INNOVATIONS

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