

Guia de Configuração de Comunicação Modbus TCP/IP entre PLCnext e S7-1200



Client



Server

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For the MB_TCP_Server function block, the registers used for Modbus correspond to the elements of the udtTCP_ComData array. Each WORD array element is to be considered as a 16-bit Modbus register. The...

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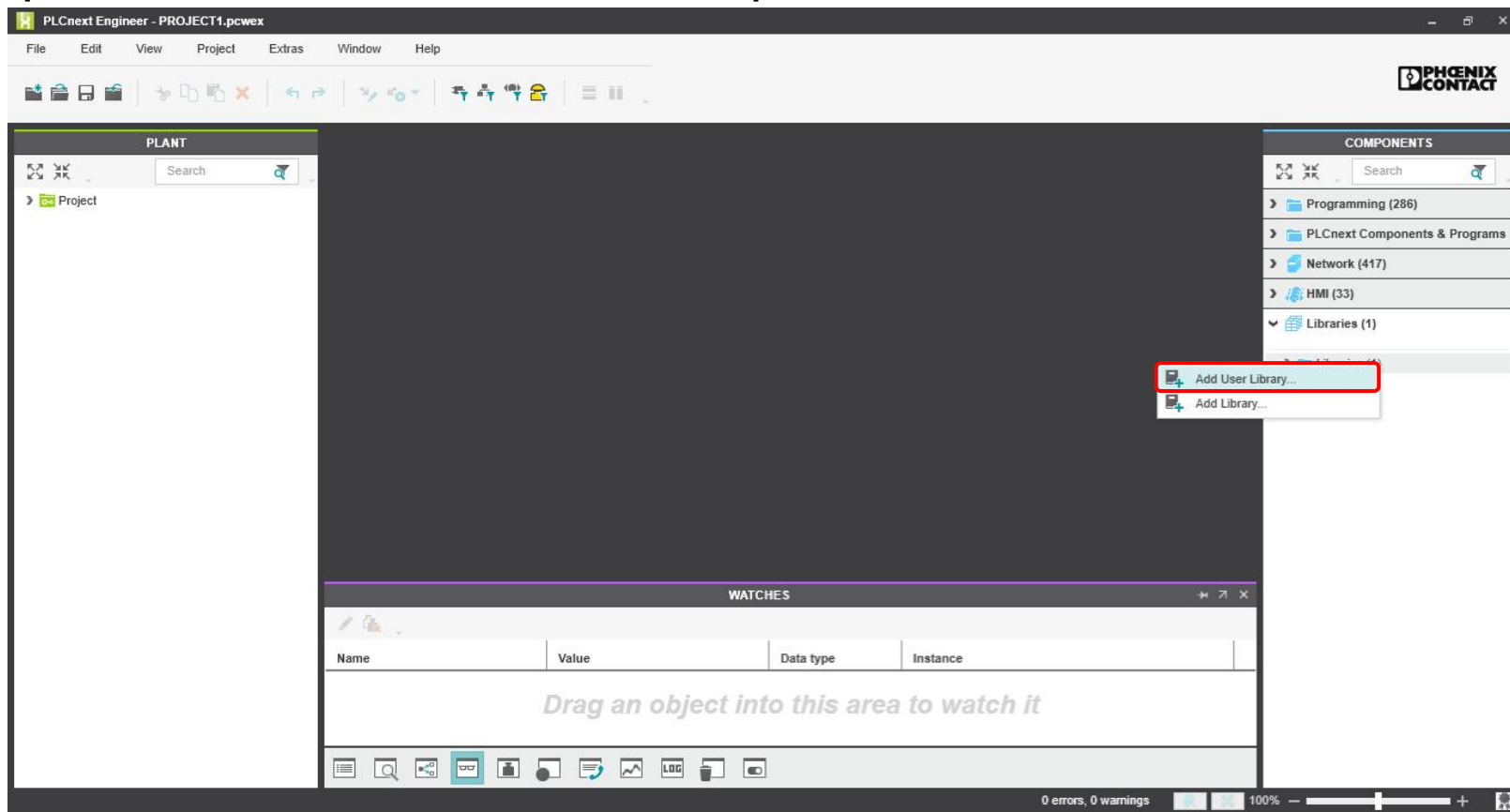
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Após a instalação, realizar a importação da biblioteca



Biblioteca importada!

PLCnext Engineer - PROJECT1.pcwex*

File Edit View Project Extras Window Help

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PLANT

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Project

WATCHES

Name	Value	Data type	Instance
Drag an object into this area to watch it			

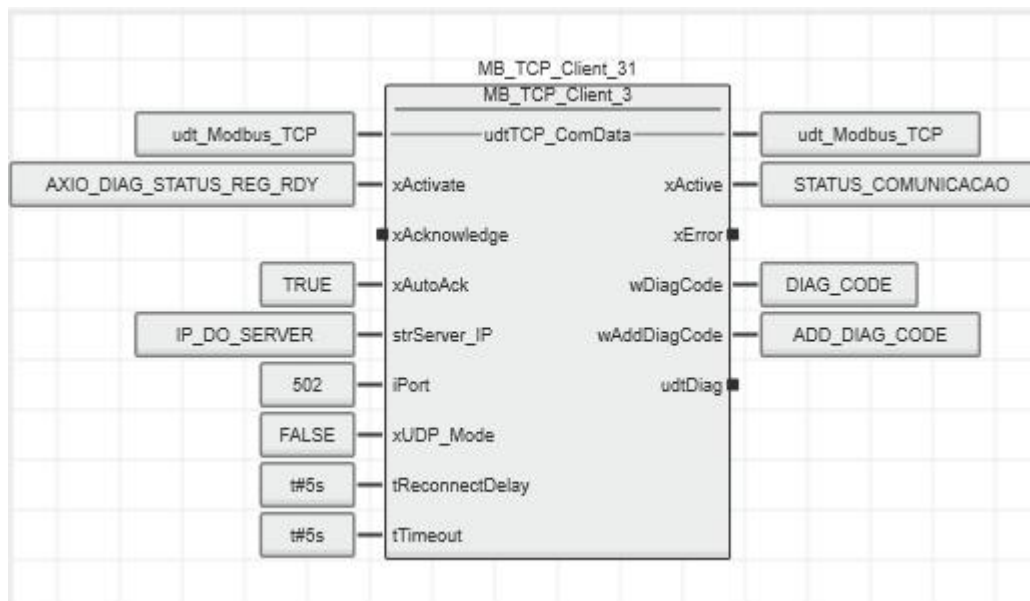
COMPONENTS

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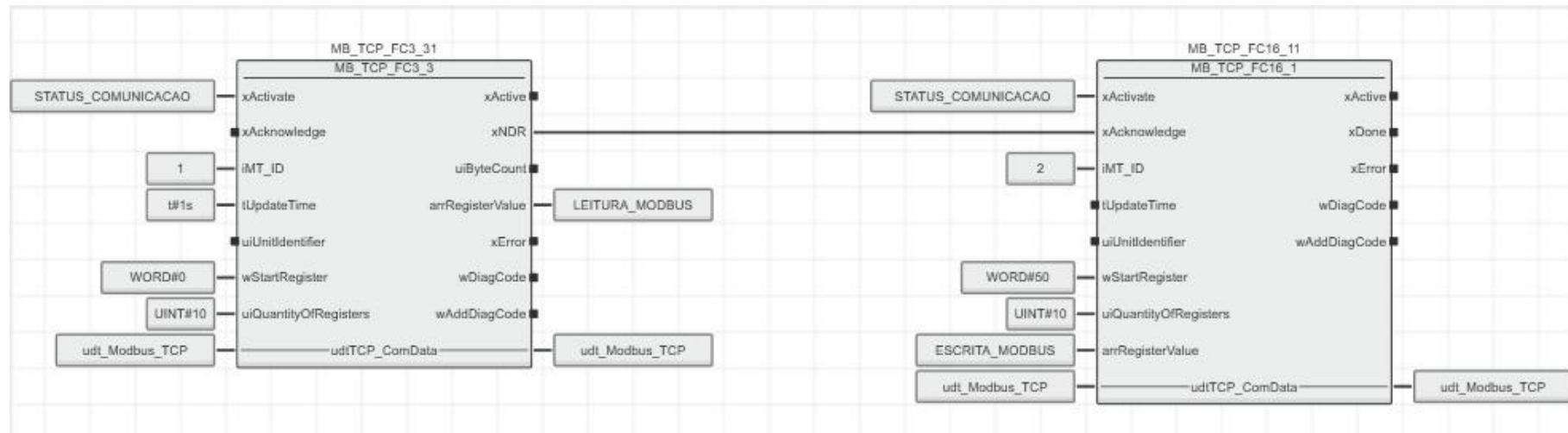
- Programming (299)
 - Local (1)
 - Extended (72)
 - IEC 61131-3 (123)
 - Modbus_TCP_6 (13)
 - Data Types (1)
 - Functions & Function Blocks (12)
 - PLCnext Controller (34)
 - Safety IEC 61131-3 (56)
- PLCnext Components & Programs
- Network (417)
- HMI (33)
- Libraries (2)
 - Libraries (2)
 - Modbus_TCP_6
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0 errors, 0 warnings 100% +

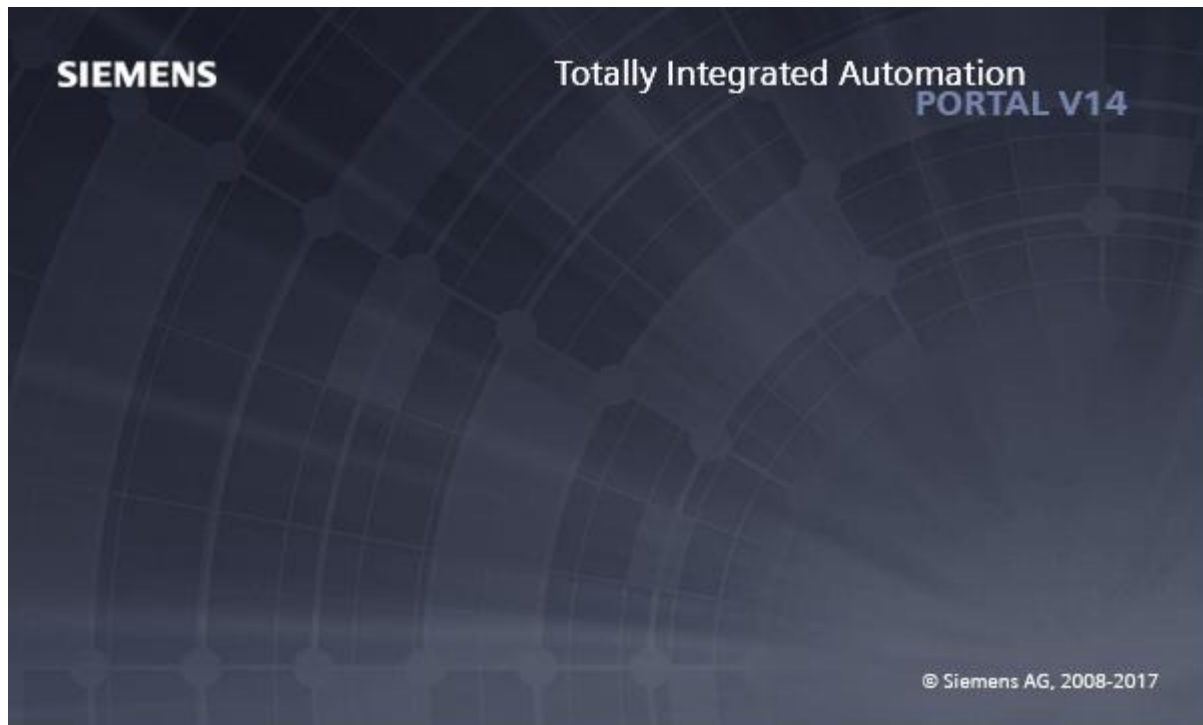
Configuração dos FBs e rotina de comunicação PLCnext Engineer



FBs de LEITURA e ESCRITA Modbus TCP/IP



Agora vamos fazer as configurações no TIA Portal



Configuração do FB de comunicação Modbus TCP/IP

The screenshot displays the Siemens STEP 7 LAD editor interface for configuring a Modbus TCP/IP communication block. The left sidebar shows the project tree with the following structure:

- S7_1200_Modbus_Server
 - Add new device
 - Devices & networks
 - PLC_1 [CPU 1214C AC/DC/Rly]
 - Device configuration
 - Online & diagnostics
 - Program blocks
 - Add new block
 - Main [OB1]** (highlighted with a red box)
 - DB_Modbus [DB2]
 - System blocks
 - Technology objects
 - External source files
 - PLC tags
 - PLC data types
 - Watch and force tables
 - Online backups
 - Traces
 - Device proxy data
 - Program info

The main workspace shows the LAD editor for the "Main Program Sweep (Cycle)" block. The network configuration is as follows:

- Network 1:**
 - EN** (Enable) is connected to a constant **false**.
 - DISCONNECT** is connected to the **MB_HOLD_REG** input of the **MB_SERVER** block.
 - CONNECT** is connected to the **CONNECT** input of the **MB_SERVER** block.
 - MB_HOLD_REG** is connected to the **MB_HOLD_REG** input of the **MB_SERVER** block.
 - ENO** (Enable Out) is connected to the **%Q0.0** output.
 - ERROR** is connected to the **"DO_0"** output.
 - STATUS** is connected to the **STATUS** output.

The right sidebar shows the "Instructions" panel with the following structure:

- Options
- Favorites
- Basic instructions
- Extended instructions
- Technology
 - Communication
 - MB_CLIENT
 - MB_SERVER** (highlighted with a red box)

Configuração do FB de comunicação Modbus TCP/IP

Project tree

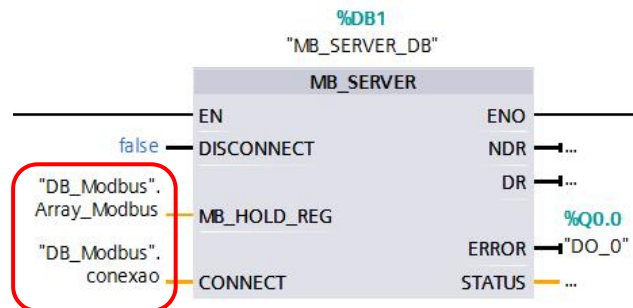
S7_1200_Modbus_Server ▸ PLC_1 [CPU 1214C AC/DC/Rly] ▸ Program blocks

Devices

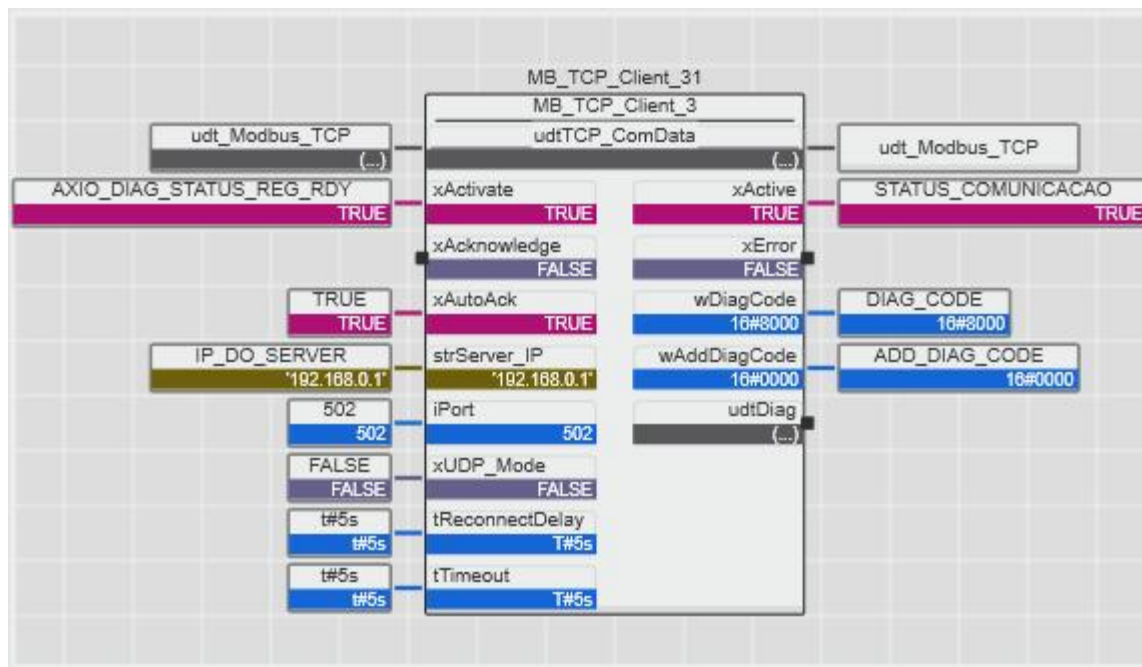
- S7_1200_Modbus_Server
 - Add new device
 - Devices & networks
 - PLC_1 [CPU 1214C AC/DC/Rly]
 - Device configuration
 - Online & diagnostics
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 - Add new block
 - Main [OB1]
 - DB_Modbus [DB2]**
 - System blocks
 - Technology objects
 - External source files
 - PLC tags
 - PLC data types
 - Watch and force tables

DB_Modbus

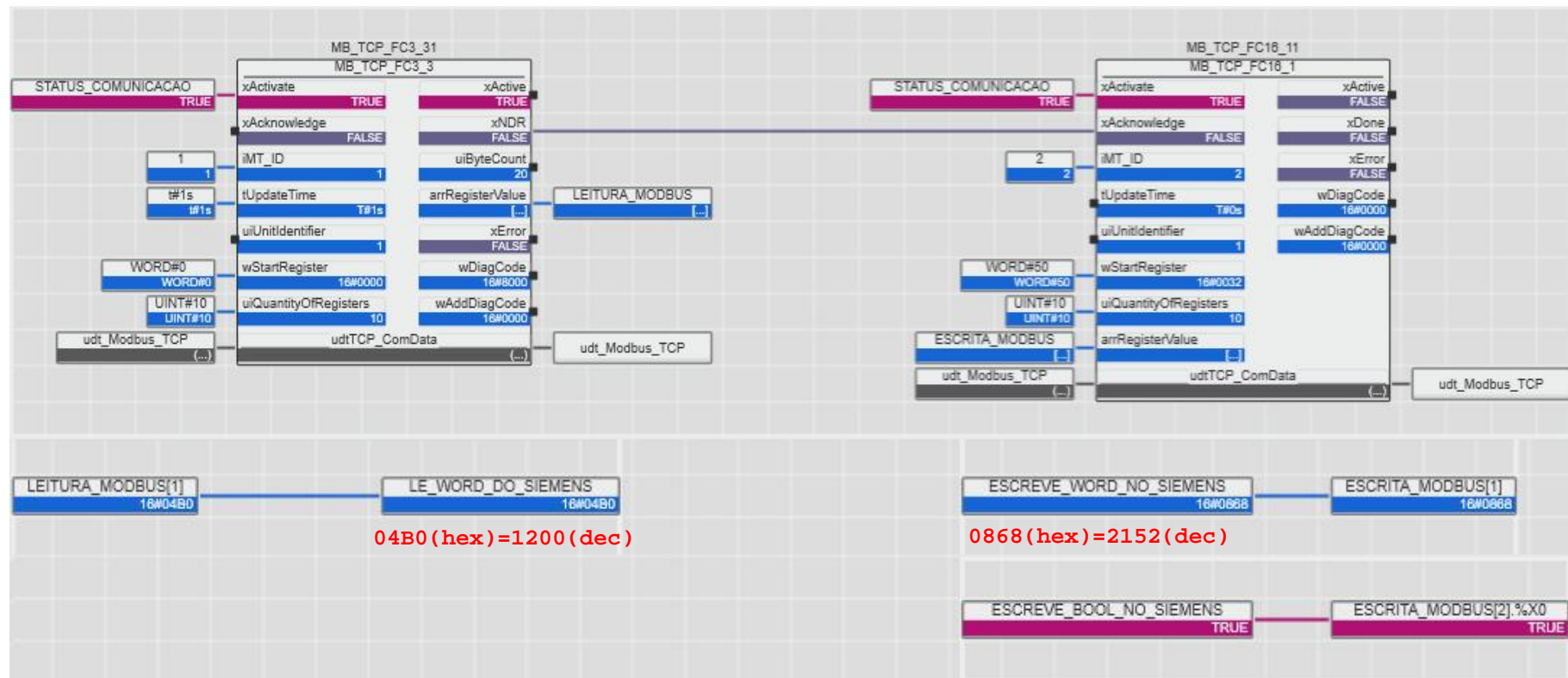
Name	Data type	Start value
Static		
Array_Modbus	Array[0..99] of Int	
conexao	TCON_IP_v4	
InterfaceId	HW_ANY	64
ID	CONN_OUC	1
ConnectionType	Byte	11
ActiveEstablished	Bool	false
RemoteAddress	IP_V4	
RemotePort	UInt	0
LocalPort	UInt	502
INFORMA_VALOR	Int	1200
RECEBE_VALOR	Int	0
STATUS	Word	16#0



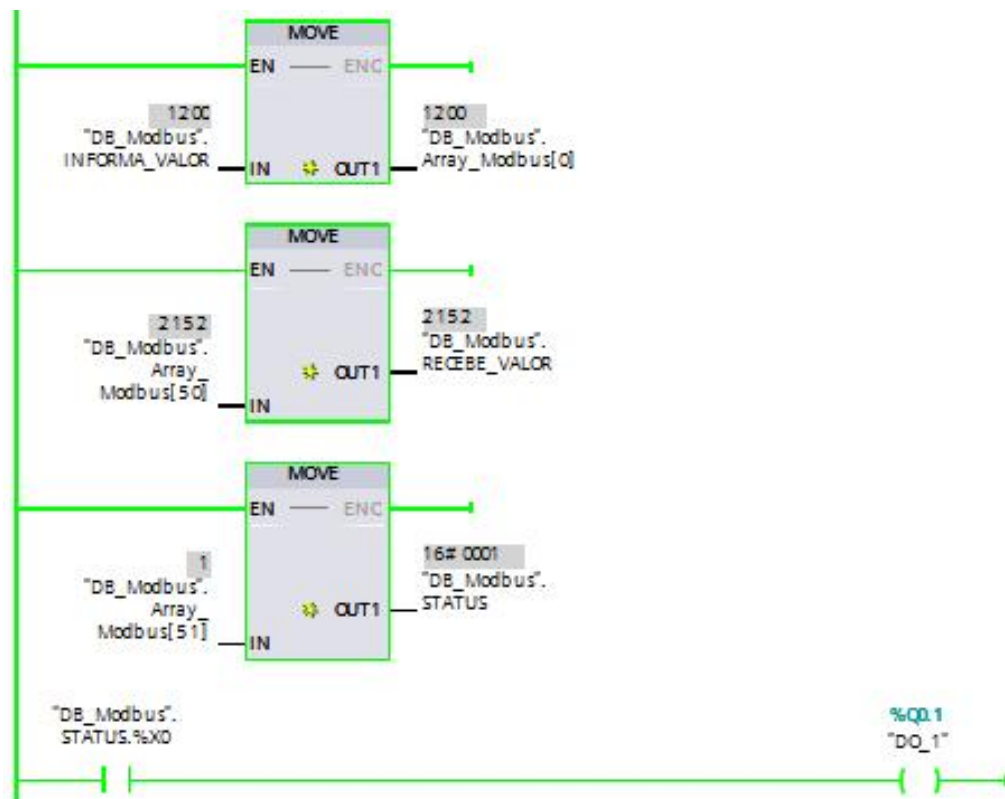
PLCnext Engineer em modo online



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TIA Portal em modo online



Apresentação



Rodrigo Richter

Eng. de aplicação e desenvolvimento de negócios.

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Pronto!!!

Configuração realizada e comunicação estabelecida.
Agora você já pode iniciar a programação.