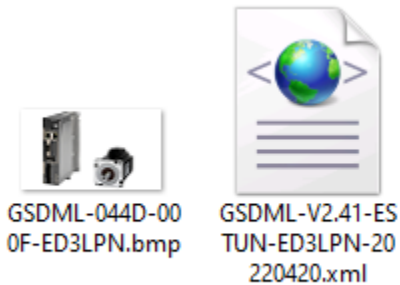


فایل GSDML را به همراه تصویر BMP موجود در فولدر GSD را در روت محل نصب نرم افزار TIA و در فولدر bin کپی نمایید

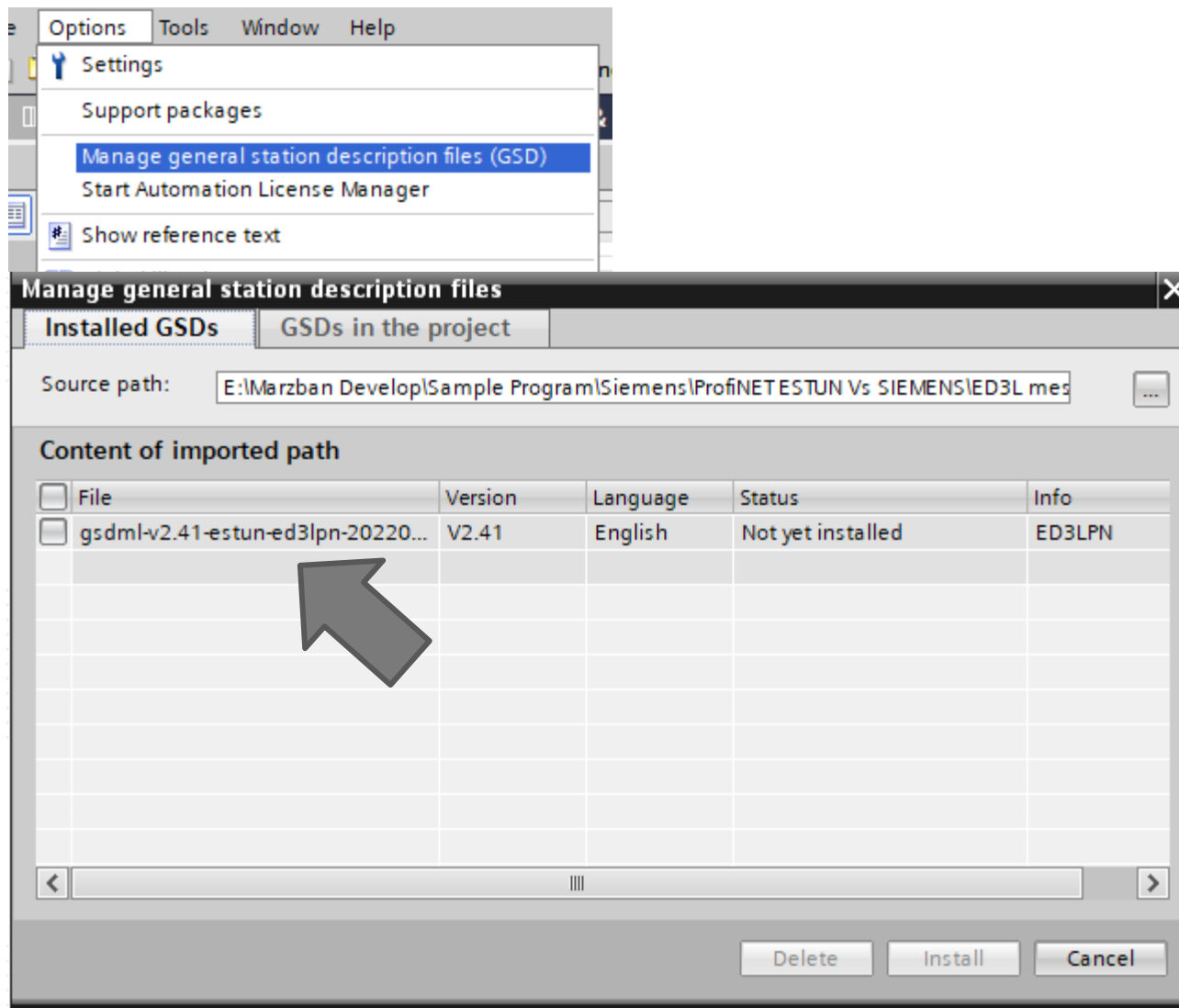


> Local Disk (C:) > Program Files > Siemens > Automation > Portal V16

Name	Date modified	Type	Size
AddIns	12/4/2022 9:38 AM	File folder	
Bin	4/4/2023 5:23 PM	File folder	
Catalog	12/4/2022 9:37 AM	File folder	
Data	12/4/2022 9:41 AM	File folder	
Help	12/4/2022 9:28 AM	File folder	
lib	12/4/2022 9:47 AM	File folder	
Manuals	12/4/2022 9:38 AM	File folder	
Meta	12/4/2022 9:38 AM	File folder	
PublicAPI	12/4/2022 9:38 AM	File folder	
Registry	12/4/2022 9:28 AM	File folder	
Schema	12/4/2022 9:29 AM	File folder	
Services	12/4/2022 9:28 AM	File folder	
Settings	12/4/2022 9:28 AM	File folder	
Setup	12/4/2022 9:41 AM	File folder	
Tour	12/4/2022 9:28 AM	File folder	
VersionInfo	12/4/2022 9:38 AM	File folder	
Win32	12/4/2022 9:37 AM	File folder	



از طریق منوی Option گزینه manage general station description files(GSD) را انتخاب نمایید. در پنجره جدید فایل GSD را پیدا و نصب نمایید.



بعد از نصب فایل GSD در نرم افزار TIA در قسمت کاتالوگ امکان انتخاب سری ED3L فراهم شده و میتوانید آن را به شبکه وارد نمایید.

The screenshot displays the Siemens TIA Portal interface. The main window is in 'Network view' mode, showing a 'Network overview' table. The table lists the following devices:

Device	Type
▼ S7-1200 station_1	S7-1200 station
▶ PLC_1	CPU 1214C AC/DC/...
▼ GSD device_1	GSD device
▶ ED3L	ED3LPN

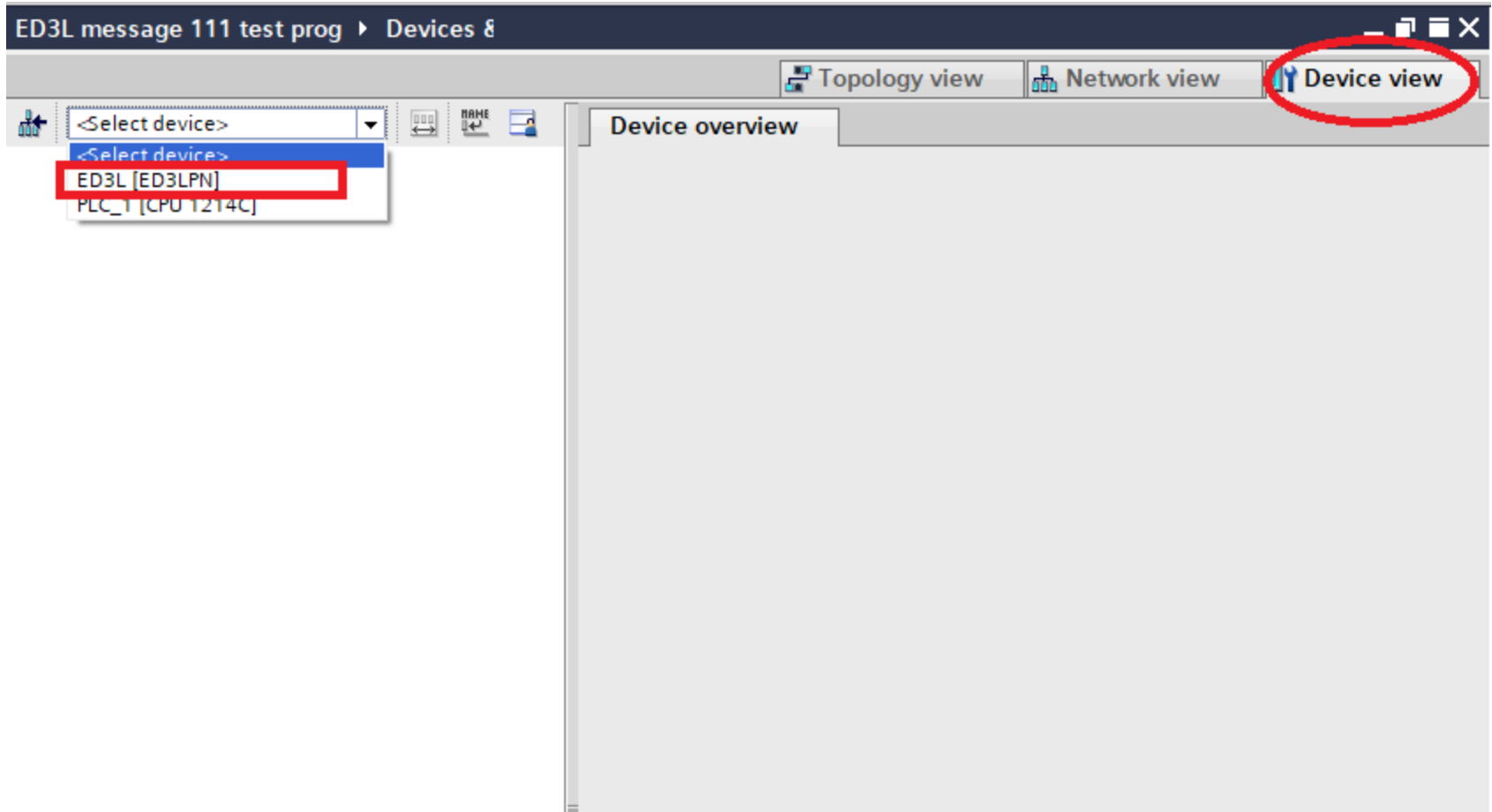
The 'Hardware catalog' on the right side shows the following structure:

- Hardware catalog
- Options
- Catalog
 - Controllers
 - HMI
 - PC systems
 - Drives & starters
 - Network components
 - Detecting & Monitoring
 - Distributed I/O
 - Power supply and distribution
 - Field devices
 - Other field devices
 - Additional Ethernet devices
 - PROFINET IO
 - Drives
 - ESTUN
 - ED3L
 - ED3LPN
 - ED3LPN

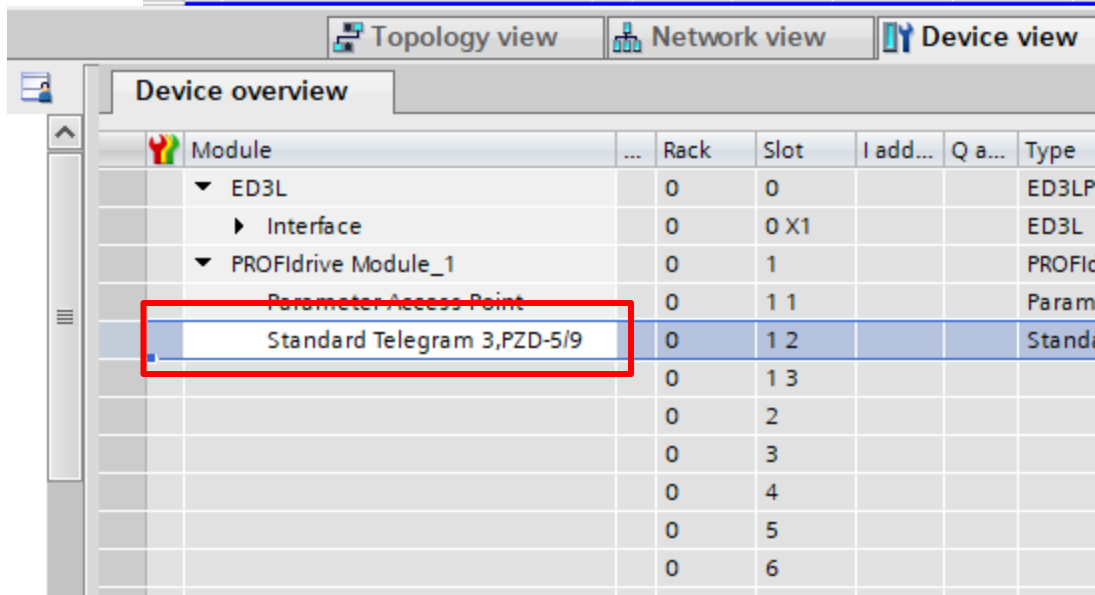
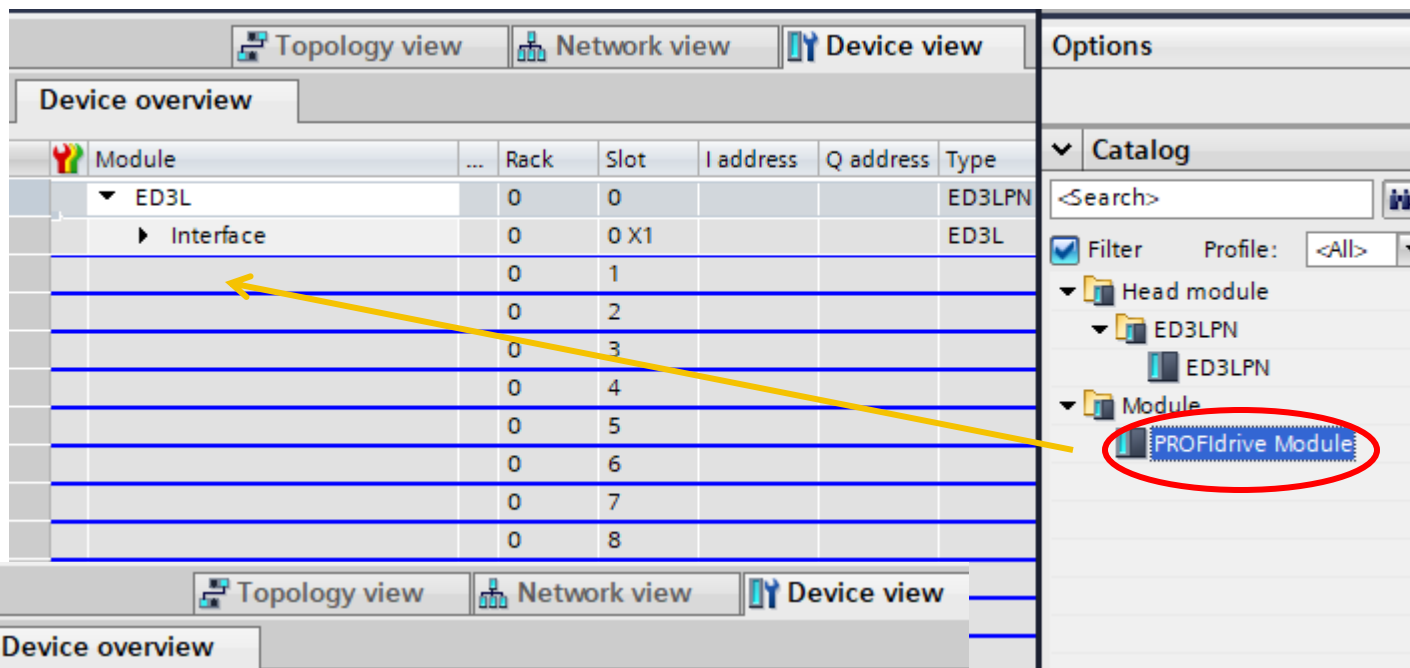
A yellow arrow points from the 'ED3LPN' device in the 'Hardware catalog' to the 'ED3L' device in the 'Network overview' table. The 'Network view' tab and the 'ED3L' device in the table are circled in red.



وارد Device view شوید و ED3L را انتخاب نمایید.



از منوی Module بر روی profidrive Module دبل کلیک نمایید تا لیست آن در Device overview اضافه شود



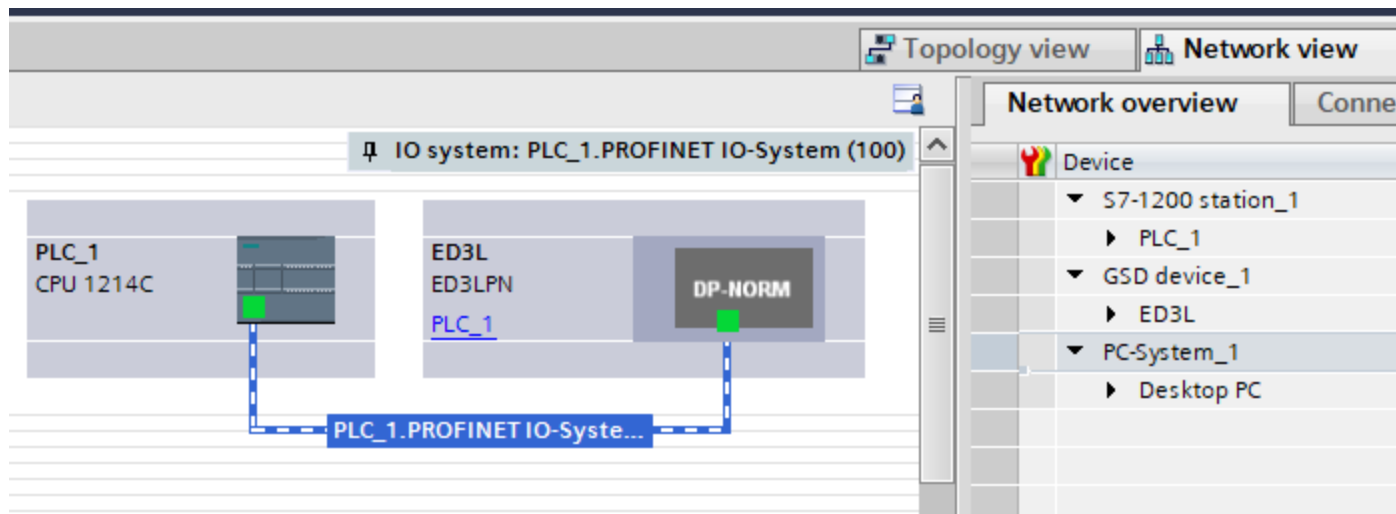
جهت اضافه کردن message 111 ابتدا 3 standard telegram را حذف نمایید

از طریق منوی submodule اقدام به اضافه نمودن standard telegram 111 را اضافه نمایید

The screenshot displays the 'Hardware catalog' window in SIMATIC Manager. The 'Device overview' table on the left shows the configuration of an ED3L module. The 'Standard Telegram 111, PZD-12/12' entry is highlighted in blue, with a yellow arrow pointing to it from the 'Submodules' list in the 'Catalog' pane on the right. The 'Catalog' pane shows a tree view of hardware components, with 'Standard Telegram 111, PZD-12/12' circled in red.

Module	Rack	Slot	I add...	Q a...	Type
ED3L	0	0			ED3LPN
Interface	0	0 X1			ED3L
PROFIdrive Module_1	0	1			PROFId...
Parameter Access Point	0	1 1			Parame...
Standard Telegram 111, PZD-12/12	0	1 2			Standar...
	0	1 3			
	0	2			
	0	3			
	0	4			
	0	5			
	0	6			
	0	7			
	0	8			
	0	9			
	0	10			
	0	11			
	0	12			
	0	13			

در قسمت Network view پورت PLC را به سرودر ایو ESTUN ED3L متصل نمایید تا کانکشن Profinet بین تجهیزات برقرار گردد.



بر روی ماژول شبکه استون راست کلیک نموده و گزینه assign device name را انتخاب نمایید

The screenshot displays the SIMATIC Manager interface in Network view. The main workspace shows an IO system named 'PLC_1.PROFINET IO-System (100)'. It contains a PLC_1 CPU 1214C and an ED3L DP-NO module. A context menu is open over the DP-NO module, listing various actions. The 'Assign device name' option is highlighted in blue. The 'Network overview' table on the right shows the device hierarchy.

Device	Type
57-1200 station_1	S7
PLC_1	CP
GSD device_1	GS

- Device configuration
 - Change device
 - Write IO-Device name to Micro Memory Card
 - Start device tool...
- Cut (Ctrl+X)
- Copy (Ctrl+C)
- Paste (Ctrl+V)
- Delete (Del)
- Rename (F2)
- Assign to new DP master / IO controller
- Disconnect from DP master system / IO system
- Highlight DP master system / IO system
- Go to topology view
- Compile
- Download to device
- Go online (Ctrl+K)
- Go offline (Ctrl+M)
- Online & diagnostics (Ctrl+D)
- Assign device name**
- Update and display forced operands
- Show catalog (Ctrl+Shift+C)



در پنجره جدید دکمه update list را بزنید و نام سرودر ایو استون را انتخاب نمایید

Assign PROFINET device name.

Configured PROFINET device

PROFINET device name: ed3l

Device type: ED3LPN

Online access

Type of the PG/PC interface: PN/IE

PG/PC interface: Realtek PCIe GBE Family Controller

Device filter

- Only show devices of the same type
- Only show devices with bad parameter settings
- Only show devices without names

Accessible devices in the network:

IP address	MAC address	Device	PROFINET device name	Status

Flash LED

Update list

Assign name

از روی لیست درایوهای موجود در شبکه ED3L را پیدا کنید و بر روی آن کلیک نمایید و در نهایت assign name را بزنید و از پنجره فوق توسط دکمه close خارج شوید.

Assign PROFINET device name.

Configured PROFINET device

PROFINET device name:

Device type:

Online access

Type of the PG/PC interface:

PG/PC interface:

Device filter

- Only show devices of the same type
- Only show devices with bad parameter settings
- Only show devices without names

Accessible devices in the network:

IP address	MAC address	Device	PROFINET device name	Status
192.168.0.2	18-A5-9C-90-04-68	ED3L	ed3l	<input checked="" type="checkbox"/> OK

Flash LED



مراحل فوق را به ترتیب دنبال کنید تا شناسه سخت افزاری را برای دستگاه فوق بدست بیاورید – (۲۷۷)

The screenshot shows the SIMATIC Manager interface. The main workspace displays a rack diagram with a device labeled 'ED3L' and a 'DP-NORM' module. The 'Device overview' table on the right lists the following modules:

Module	Rack	Slot	I address	Q address	Type
ED3L	0	0			ED3LPN
Interface	0	0 X1			ED3L
PROFdrive Module_1	0	1			PROFI...
Parameter Access Point	0	11			Para...
Standard Telegram 111, PZD-12/12	0	12	68...91	64...87	Stand...
	0	13			
	0	2			
	0	3			
	0	4			
	0	5			
	0	6			
	0	7			
	0	8			
	0	9			
	0	10			
	0	11			
	0	12			
	0	13			
	0	14			
	0	15			
	0	16			

The 'System constants' tab is active, showing the following table:

Name	Type	Hardware identi.	Used by	Comment
ED3L-PROFdrive_Module_1-Standard_Telegram_11...	Hw_SubModule	277	PLC_1	

از قسمت کتابخانه TIA Portal نسبت به وارد نمودن کتابخانه مربوط به توابع حرکتی زیرمنس اقدام نمایید و بعد از آن فانکشن SINA_POS را به OB1 اضافه کنید.

The image shows two overlapping screenshots from the TIA Portal software. The foreground screenshot is a file explorer window titled 'Open global library'. The 'Look in:' field is set to 'PROFINET'. A table of files is displayed:

Name	Date modified	Type
GSDML	9/28/2022 10:00 AM	File folder
Drive_Lib_S7_1200_1500.zal16	4/5/2023 12:36 PM	Siemens

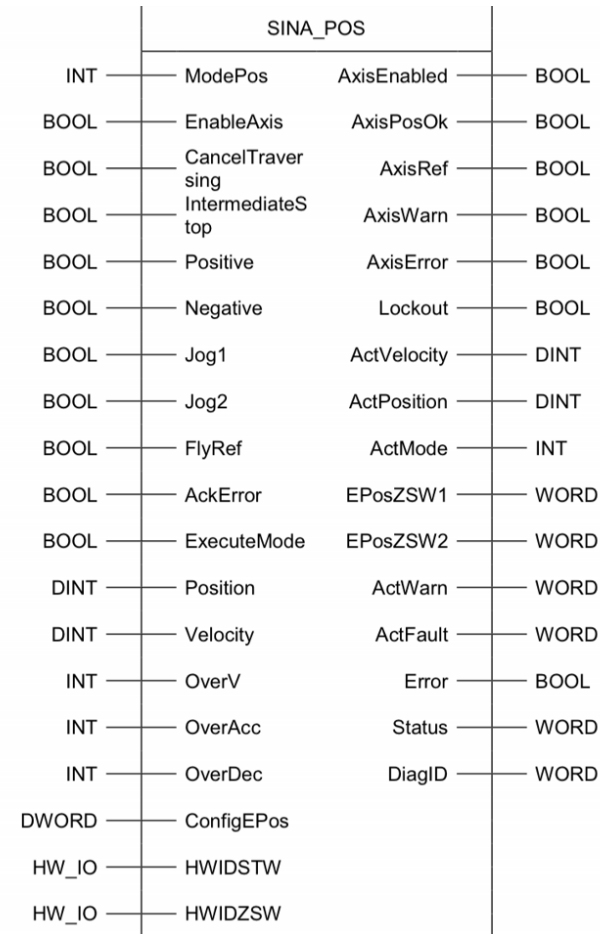
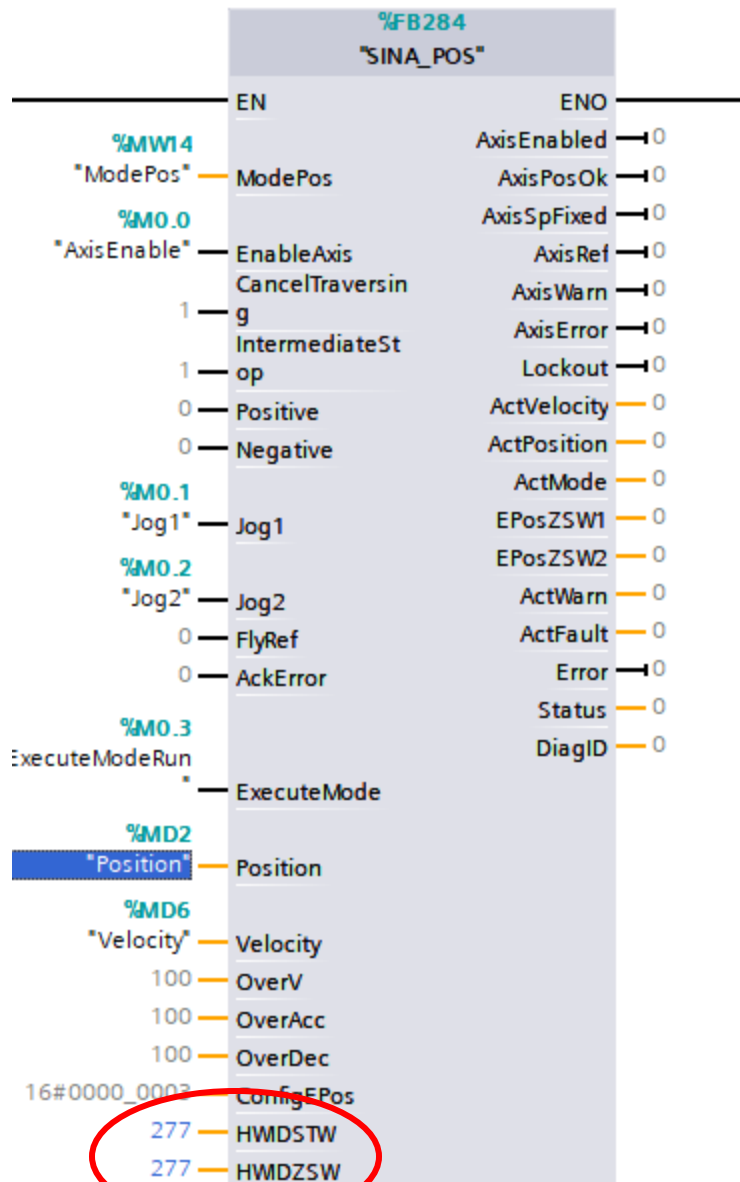
The file 'Drive_Lib_S7_1200_1500.zal16' is highlighted with a red box and labeled with a red '2'. Below the table, the 'File name' field contains 'Drive_Lib_S7_1200_1500.zal16' and the 'Files of type' dropdown is set to 'Compressed libraries (*.zal16;*.zal15_1;*.zal15;*'. The 'Open as read-only' checkbox is checked.

The background screenshot shows the 'Global libraries' pane in TIA Portal. A red box labeled '1' highlights the 'Add' icon (a green arrow pointing to a book). The 'Libraries' pane on the right is highlighted with a yellow box. The library list includes 'Buttons-and-Switches', 'Long Functions', 'Monitoring-and-control-obj...', and 'Documentation templates'. The 'Drive_Lib_S7_1200_1500' library is expanded, showing sub-libraries like 'Types', 'Master copies', and 'SINA_INFED', 'SINA_PARA', 'SINA_PARA_S', 'SINA_POS', and 'SINA_SPEED'. The 'SINA_POS' function is highlighted with a blue selection bar.



شناسه سخت افزاری (۲۷۷) می بایست در قسمت HWDSTW فانکشن SINA_POS وارد شود.

باقی ورودی و خروجی های فانکشن فوق را می بایست با توجه به نوع دیتای درخواستی فانکشن تعریف نمایید.



مدهای کنترلی ورودی ModePos که بصورت INT می بایست برای فانکشن مشخص شود – به عنوان مثال اگر رجیستر ModePos را برابر با عدد ۷ قرار دهیم عملکرد jog سیستم فعال میشود.

Name	Type	Start value	Function
ModePos	INT	0	Operating mode: 1: Positioning, relative 2: Positioning, absolute 3: Positioning as setup 4: Homing – reference point approach 5: Homing – reference point definition 6: Traversing block 7: Jog mode 8: Jog mode, incremental



Name	Type	Start value	Function
Error	BOOL	FALSE	General fault
Status	WORD	0	Display of status values: 16#7002: no fault 16#8401: Fault in the drive 16#8402: On-inhibit 16#8403: Homing on the fly could not be initiated 16#8600: DPRD_DAT error 16#8601: DPWR_DAT error 16#8202: incorrect mode selected 16#8203: incorrect setpoint values configured 16#8204: incorrect traversing block number selected
DiagID	WORD	0	Extended communication fault
AxisEnabled	BOOL	FALSE	Drive ready
AxisError	BOOL	FALSE	Drive fault active
AxisWarn	BOOL	FALSE	Drive warning active
AxisPosOk	BOOL	FALSE	Axis has reached target position
AxisRef	BOOL	FALSE	Refernce point set
ActVelocity	DINT	0	actual velocity in Length Unit/min
ActPosition	DINT	0	actual position in Length Unit
ActMode	INT	0	currently active mode



جهت استفاده از سیمولیشن HMI زمینس می بایست از طریق control panel و ارد set pg/pc interface ویندوز شوید و سخت افزار ارتباطی خود را بصورت auto تعیین نمایید

