

常问问题 • 11/2014

# 在博途中组态 SIMOTION 与西门子精智屏的连接

TIA Portal, SIMOTION, Comfort Panel

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# 1 概述

从 SCOUT V4.4 之后可以在 TIA Portal V13 中组态 SIMOTION 控制器与西门子精智屏的连接，可以使用 SCOUT TIA 进行 SIMOTION 的组态及调试，使用 WINCC V13 完成精智屏的组态及调试。

SIMOTION 及 HMI 在一个项目中完成组态，实现了 SIMOTION 及触摸屏项目的高度集成。项目组态主要步骤如下：

- (1) 在 TIA Portal 中创建项目
- (2) 创建一个 SIMOTION 设备
- (3) 打开 SCOUT TIA 对 SIMOTION 进行配置及编程
- (4) 在 TIA Portal 中添加 HMI 并进行组态

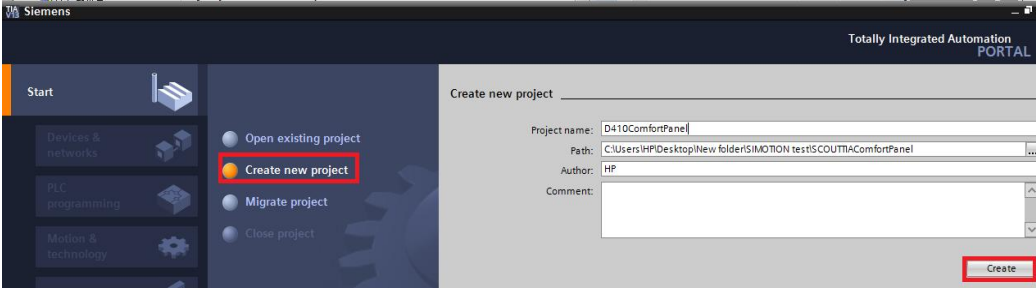
## 2 配置步骤

### 2.1 软硬件要求

- TIA Portal V13 Update2 以上版本、SIMOTION SCOUT TIA V4.4 选件包
- SIMOTION SCOUT V4.4 以上版本
- SIMATIC STEP 7 V5.5 SP4
- 使用 SIMOTION 控制器 Fw V4.3 以上
- WinCC Comfort, WinCC Advanced 或 WinCC Professional V13 以上版本

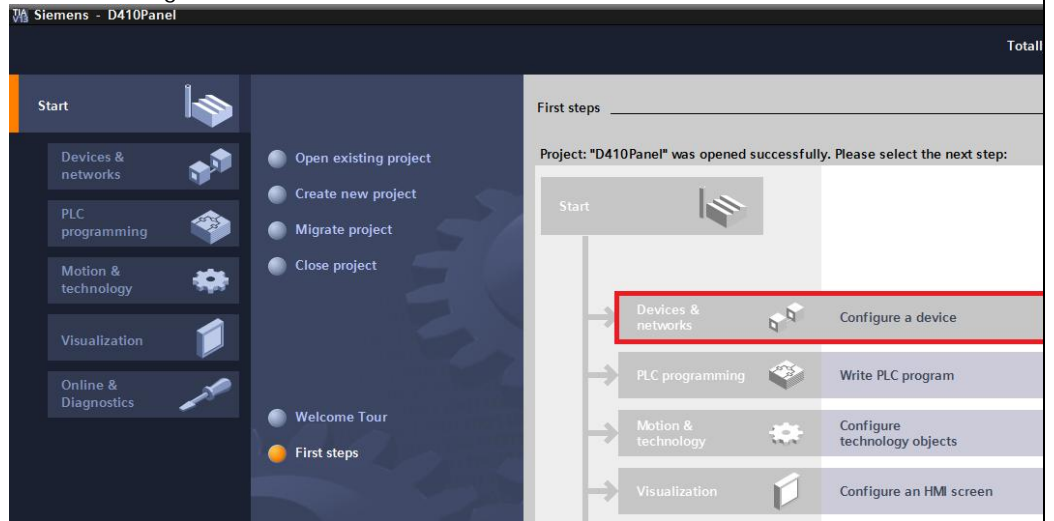
### 2.2 配置步骤

配置过程如表 1-1 所示：

序号	描述
1	<p>双击 TIA Portal V13 打开博途软件，注意请选择“英文”语言，点击“Create new project”：</p> 

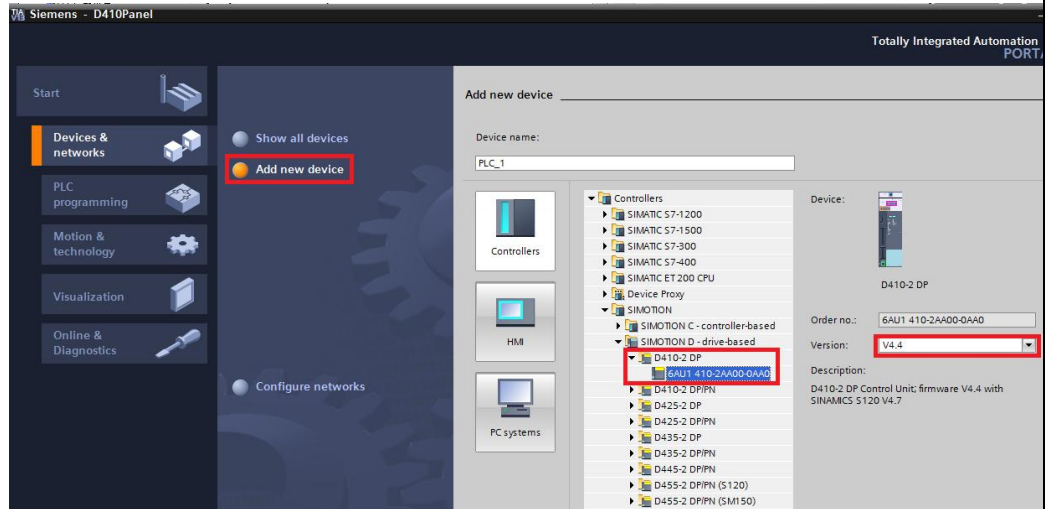
2

点击“ Configure a device” :

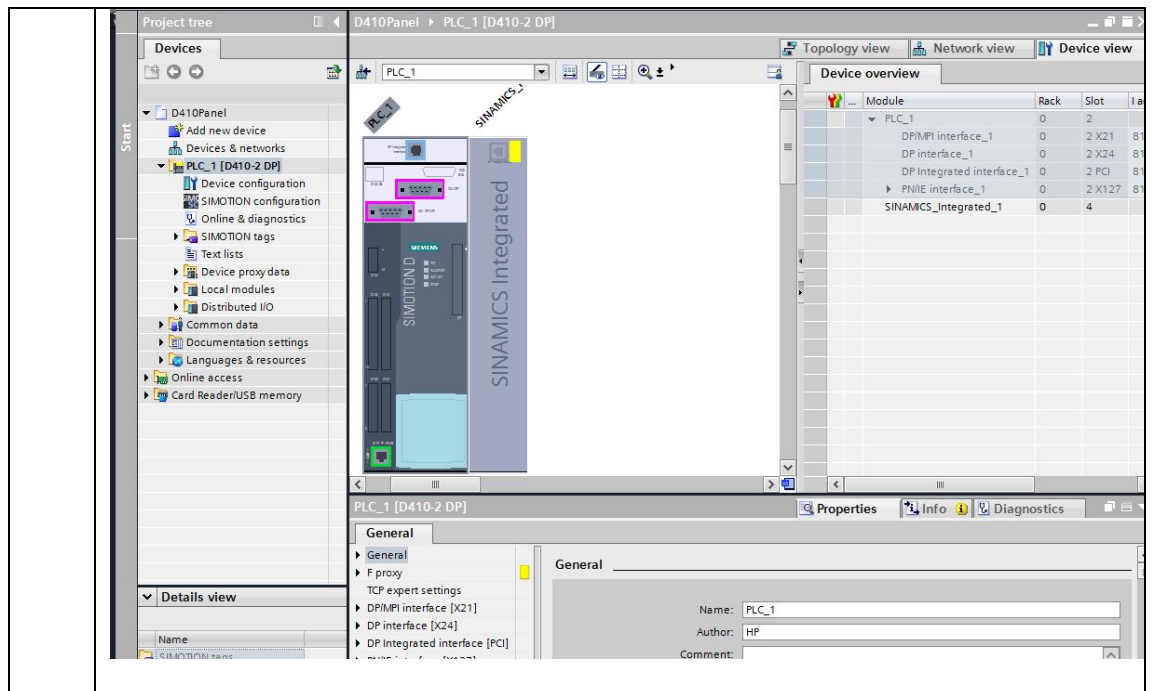


3

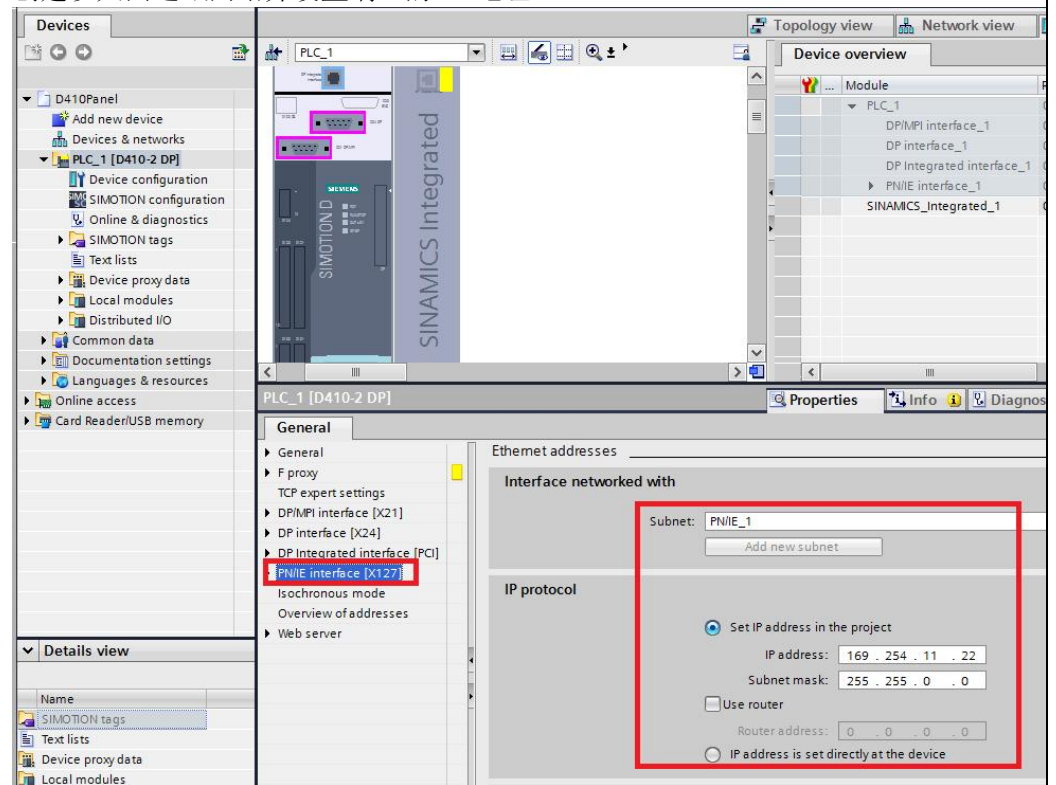
点击“ Add new device”，输入设备名称并在控制器列表中选择 SIMOTION 设备及相关版本:



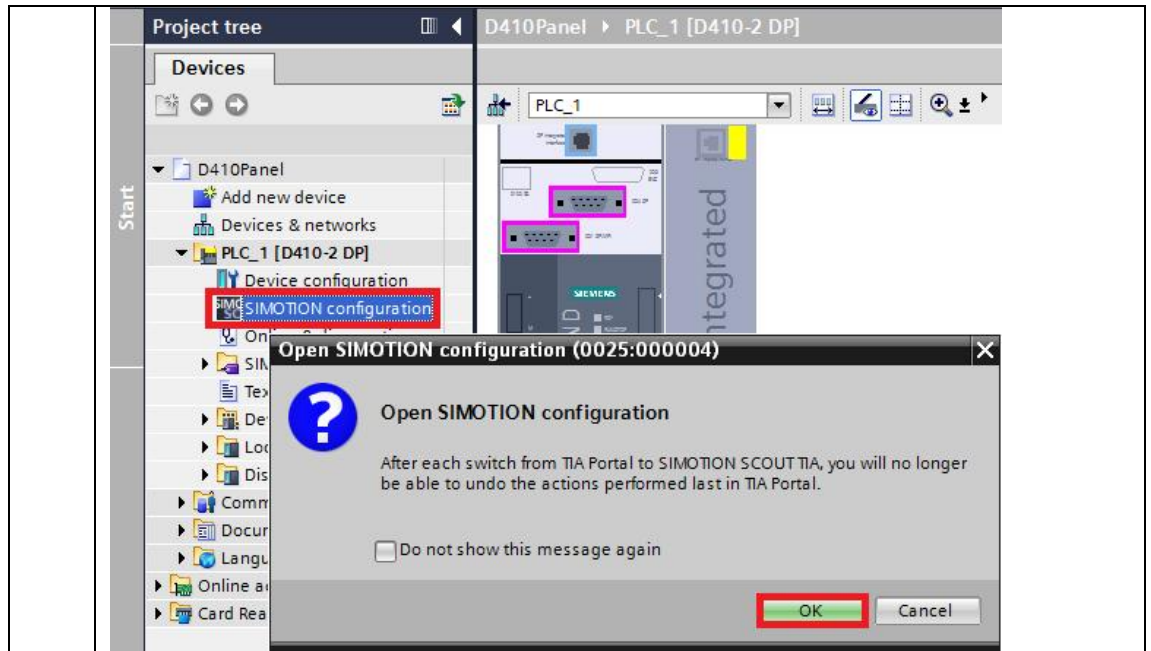
添加设备后会自动打开设备视图:



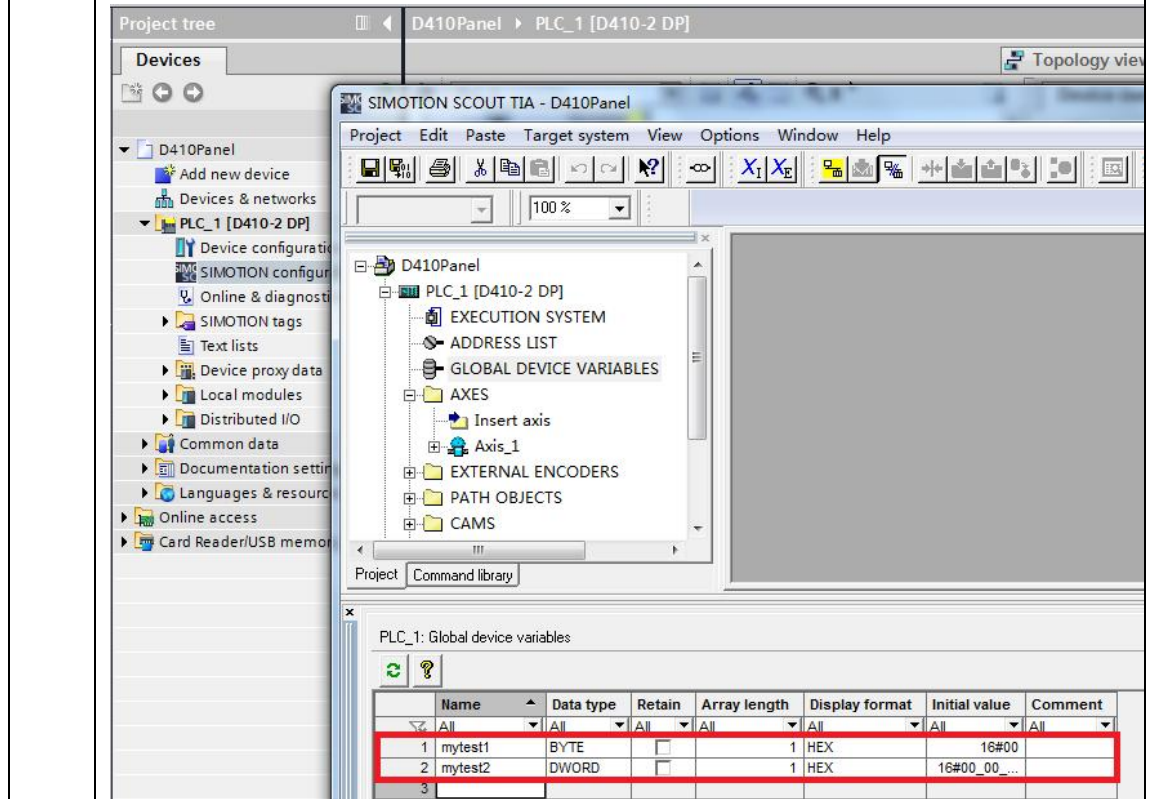
4 创建以太网通讯网络并设置端口的 IP 地址:



4 双击目录树中“ SIMOTION configuration” 条目，打开 SIMOTION SCOUT TIA 配置软件进行 SIMOTION 的组态及编程:



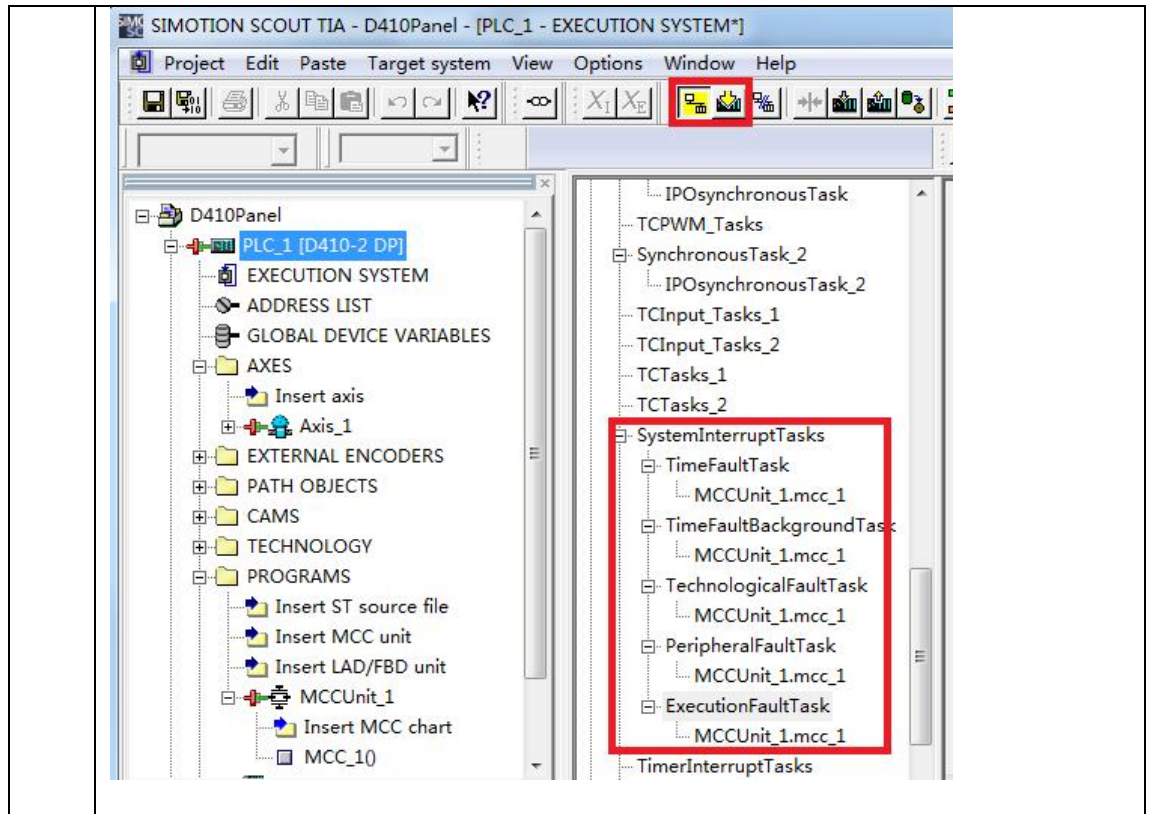
4 在打开的 SIMOTION SCOUT TIA 配置软件中创建全局变量后对项目进行保存编译：



5 设置 SIMOTION 的在线访问节点：

The image shows two screenshots from the SIMOTION SCOUT TIA - D410Panel software. The top screenshot displays the 'Target device' context menu for 'PLC\_1 [D410-2 DP]', with the 'Online access ...' option highlighted in a red box. The bottom screenshot shows the 'Online access' configuration window, where the 'Go online' button is highlighted in a red box. The window also shows a network diagram with a laptop and a PLC unit, and configuration fields for interface type, connection, and device address.

6 在 SIMOTION 项目中创建一个空程序，将它分配到“ System interrupt task” 中，编译项目后在线下载项目：

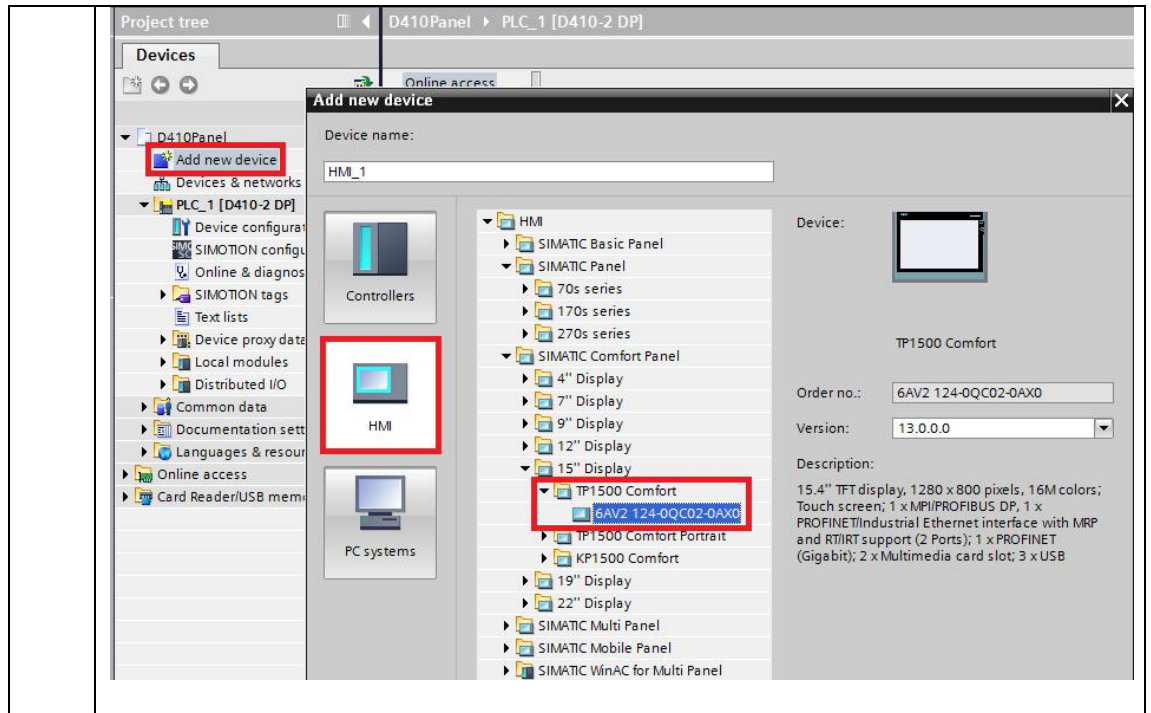


7 使 SIMOTION 进入到运行状态:

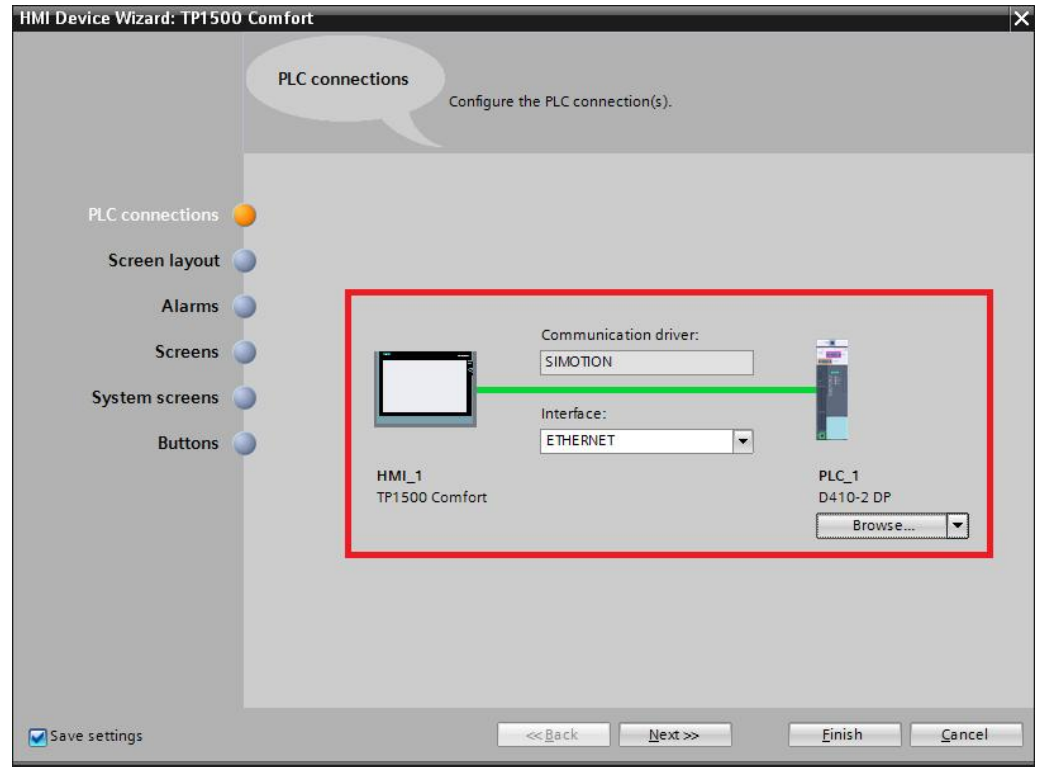


8 在 TIA Portal 中添加触摸屏, 点击“ Add new device”, 选择触摸屏:





9 选择与触摸屏连接的 SIMOTION，选择通讯接口并选择通讯驱动：



10 打开网络视图检查并设置两个设备的 IP 地址：

The image displays two screenshots of the Siemens SIMATIC Manager software interface, specifically the 'Devices & networks' section for a project named 'D410Panel'. Both screenshots show a network topology view with a PLC (PLC\_1, D410-2 DP) and an HMI (HMI\_1, TP1500 Comfort) connected via a 'PN/IE\_1' interface. The 'Network overview' pane on the right lists the devices and their components.

The top screenshot shows the configuration for the 'PN/IE interface\_1 [X127]'. The 'General' tab is active, and the 'Ethernet addresses' section is highlighted with a red box. The 'Interface networked with' dropdown is set to 'PN/IE\_1'. Under the 'IP protocol' section, the radio button 'Set IP address in the project' is selected and highlighted with a red box. The IP address is set to '169 . 254 . 11 . 22' and the subnet mask is '255 . 255 . 0 . 0'. Other options like 'Use router' and 'IP address is set directly at the device' are visible but not selected.

The bottom screenshot shows the configuration for the 'PROFINET Interface\_1 [X1]'. The 'General' tab is active, and the 'Ethernet addresses' section is highlighted with a red box. The 'Interface networked with' dropdown is set to 'PN/IE\_1'. Under the 'IP protocol' section, the radio button 'Set IP address in the project' is selected and highlighted with a red box. The IP address is set to '169 . 254 . 11 . 2' and the subnet mask is '255 . 255 . 0 . 0'. Other options like 'Use router' are visible but not selected.

11 添加触摸屏变量:

11 在触摸屏画面中添加 I/O 域并关连变量:

12 运行测试结果:

Name	Data type	Retain	Array le	Displ	Initial valu	Status value
mytest1	BYTE		1	HEX	16#00	16#08
mytest2	DWORD		1	HEX	16#00...	16#00_00...

表 1-1 配置步骤