User Manual

EasyBuilder Pro Quick Start Guide

This guide explains how to create a simple project file in EasyBuilder Pro and download it for use on an HMI.

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EasyBuilder Pro Quick Start Guide

Creating a simple project file in EasyBuilder Pro involves just a few steps:

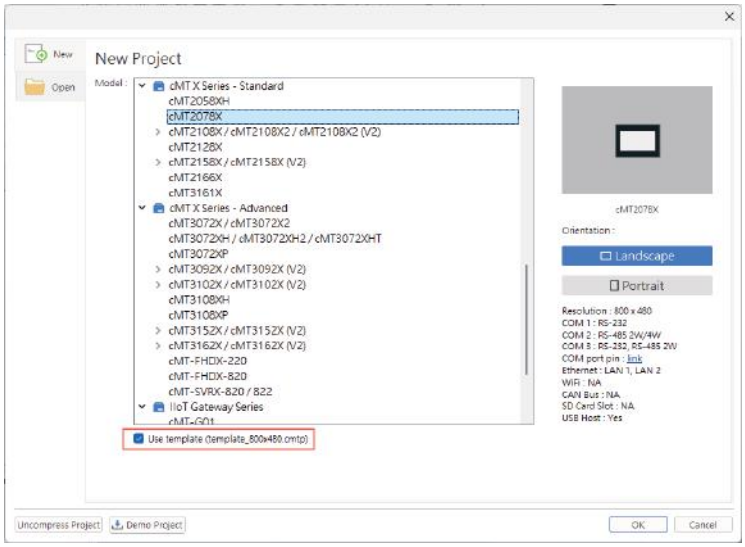
Set PLC Device Parameters → Create Objects → Perform Offline or Online Simulation → Configure HMI IP Address → Download Project File to HMI

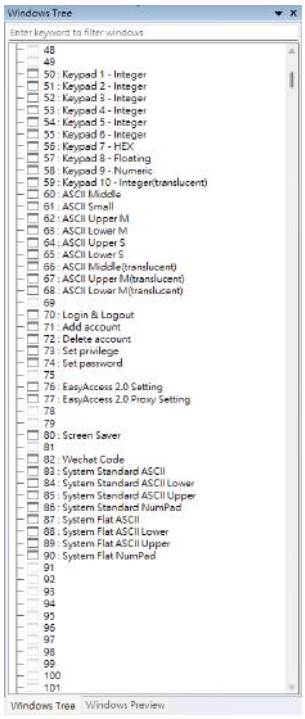
Ensure that EasyBuilder Pro is installed on your computer before starting. This guide uses a cMT2078X HMI and a PLC device with the MODBUS TCP/IP protocol as an example.

1. Set PLC Device Parameters

Step 1. Open EasyBuilder Pro and create a new file.

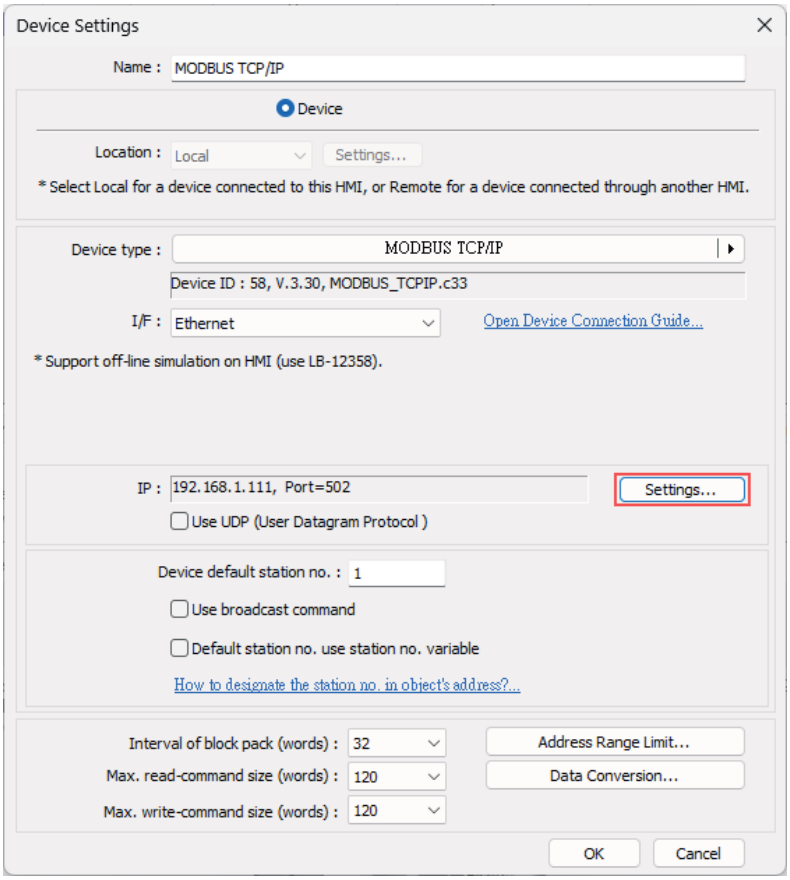
Step 2. Select the model, check [Use template], and click [OK]. The template file includes several preset windows, such as built-in keypads on windows 50 to 68 and 83 to 90, user password setup pages on windows 70 to 74, EasyAccess 2.0 setup pages on windows 76 to 77, and the screensaver page on window 80.



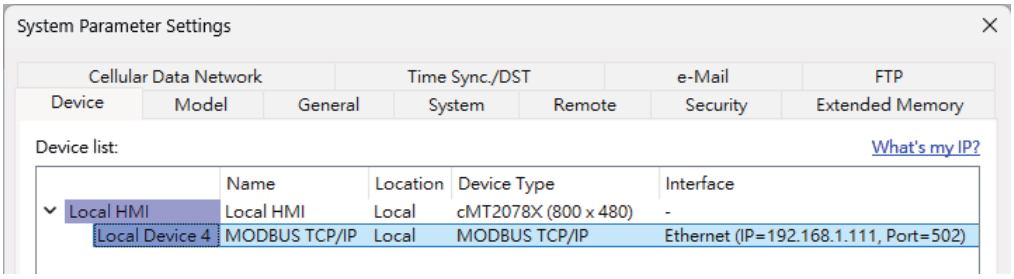


Step 3. On the [Device] tab, click [New Device/Server] to configure the PLC device to be connected.

Step 4. This step uses a PLC device with the MODBUS TCP/IP protocol as an example. Correctly set parameters such as IP address and port.

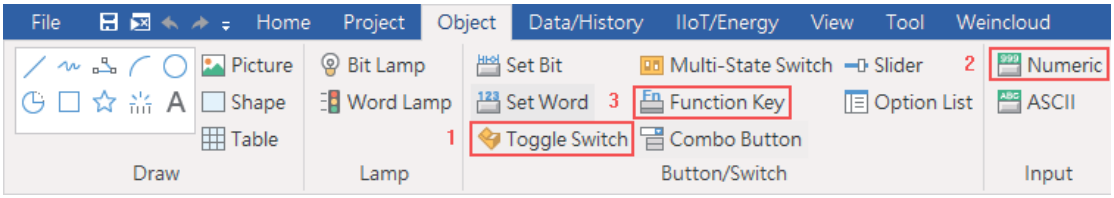


Step 5. After clicking [OK], a new device will be added to the [Device list].



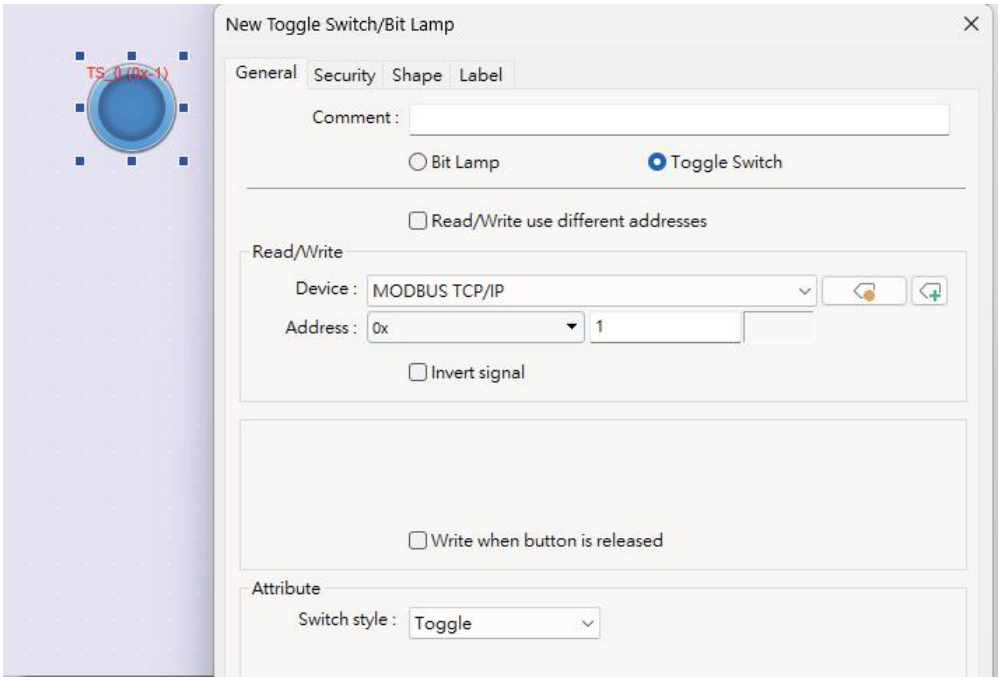
2. Create Objects

The following describes how to create three representative objects and their functions.

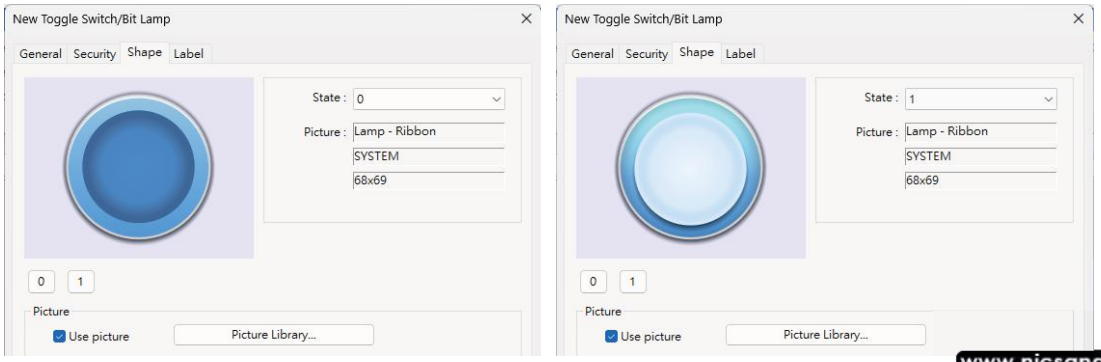


Step 1. Create a [Toggle Switch] Object:

If there is a switch for a light on the PLC device and the goal is to control its switch on the HMI, create this object. It is commonly used for operating bit addresses. Click [Object] » [Toggle Switch], and under Read/Write, set the corresponding MODBUS addresses for the light. Refer to the PLC Connection Guide for address mapping.

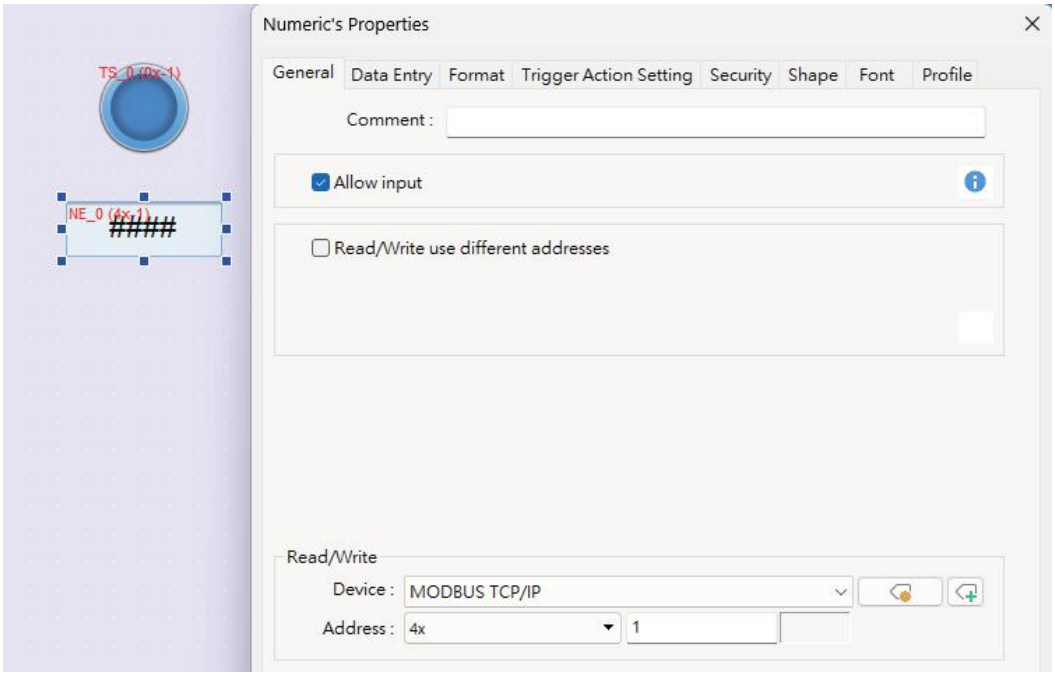


Set the switch style to Toggle, meaning that if the initial state is 0 (OFF), clicking it once will set it to 1 (ON). Besides the default images included in the system, it is also possible to add or modify images for each state in the Shape tab.



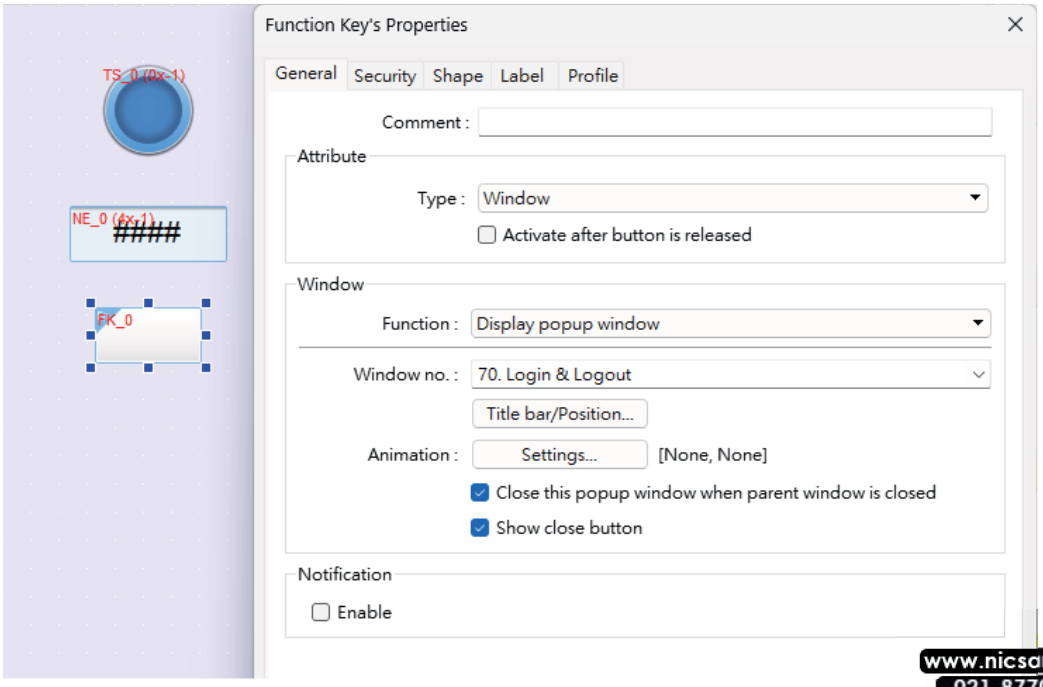
Step 2. Create a [Numeric] Object:

Various data such as temperature and humidity from sensors often exist in PLC devices. This object can display the data or set parameters. Click [Object] » [Numeric] and configure, including the read/write addresses.

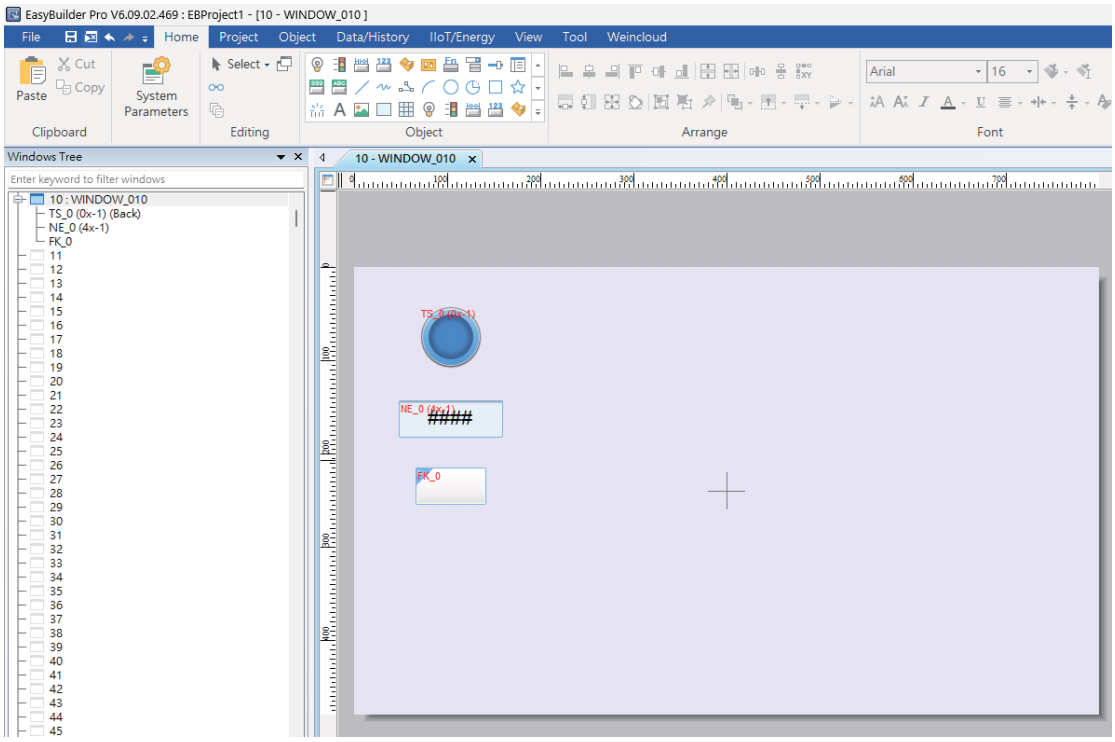


Step 3. Create a [Function Key] Object:

To create an intuitive project interface, it is often necessary to display popup windows or switch between full-screen windows. Use [Function Key] to create these functional buttons. Click [Object] » [Function Key] and configure the functions as needed.



Step 4. Properly place the objects in the editing window to complete a simple project file.



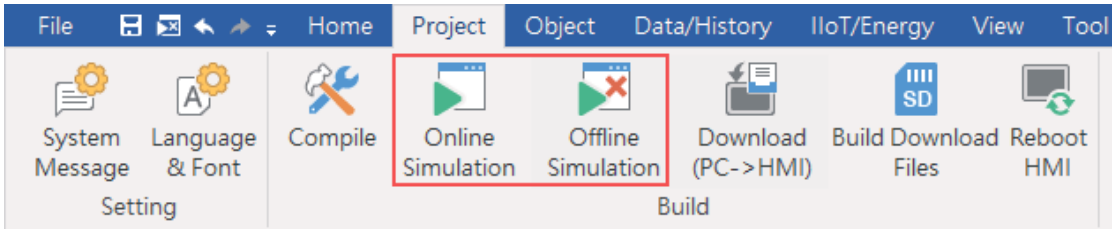
EasyBuilder Pro offers a variety of objects with different functions. When designing project files, select objects according to needs. For details on available objects, refer to the EasyBuilder Pro User Manual.

3. Simulate the Project File

EasyBuilder Pro offers two types of simulation:

Offline Simulation: Operates without a connection to the PLC device and is used to verify whether the project file functions as designed.

Online Simulation: Communicates with the PLC device to reflect actual HMI-PLC behaviors.

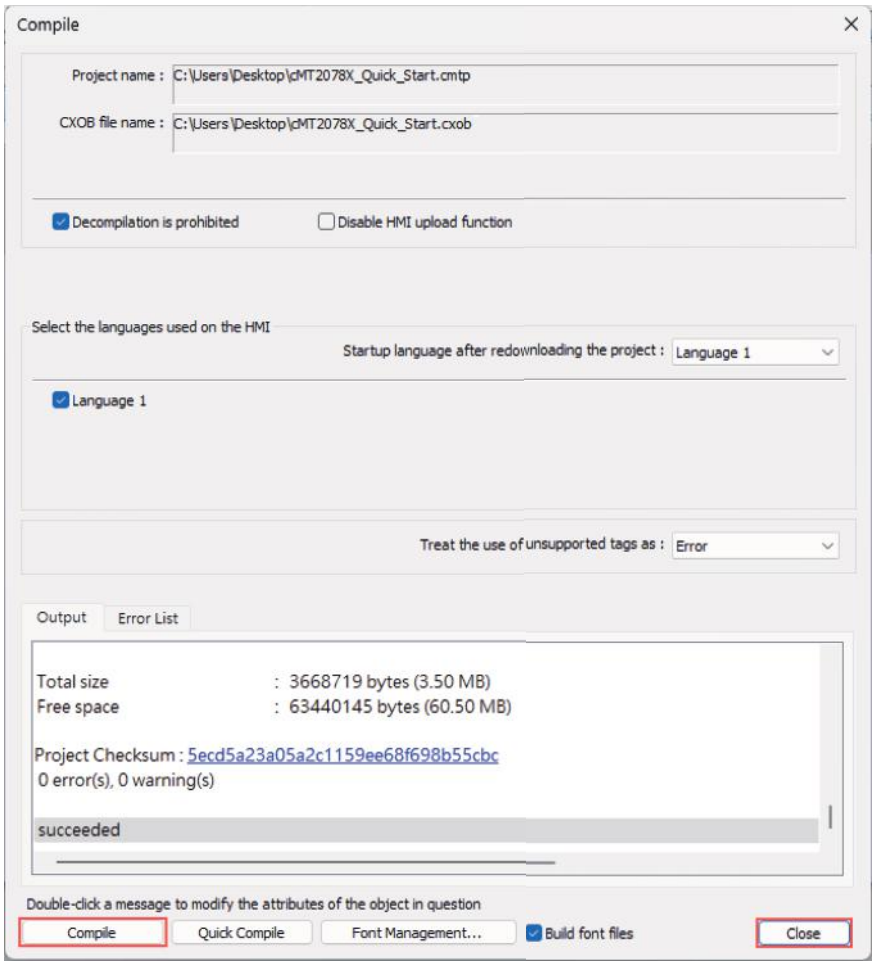


Offline Simulation

Step 1. Save the project file.

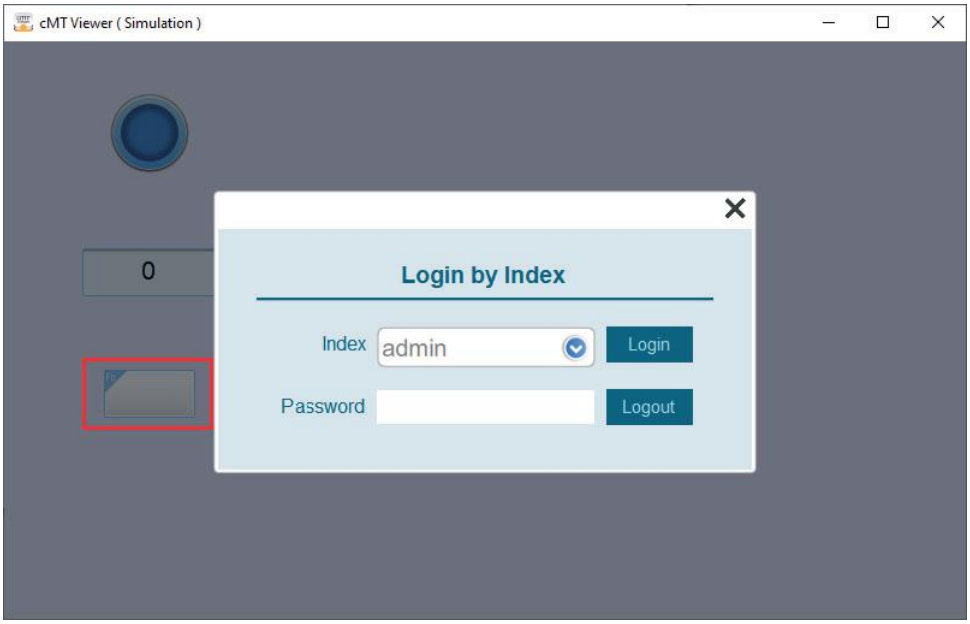
Step 2. Click [Project] » [Compile].

Step 3. Click [Compile], and after completion, click [Close].



Step 4. Click [Offline Simulation] to verify the relative position and basic operation of objects.

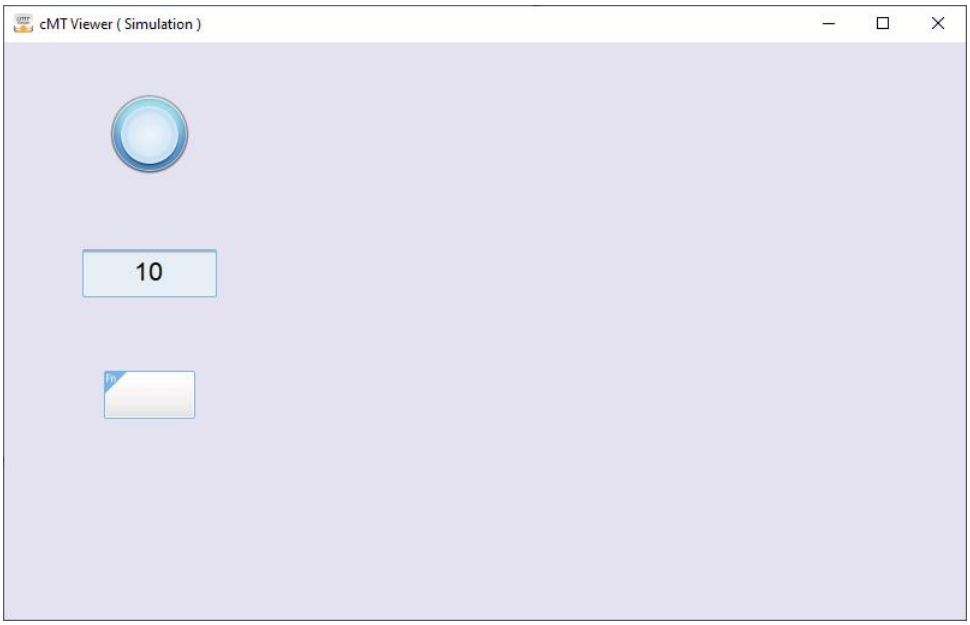
Step 5. The [Toggle Switch] and [Numeric] objects display offline without attempting communication with the PLC device. Check if the [Function Key] object operates the popup window correctly.



Online Simulation

Step 1. Ensure computer communication with the PLC device, and after clicking [Online Simulation], verify communication with the device.

Step 2. The software will reflect the actual values in the PLC device.



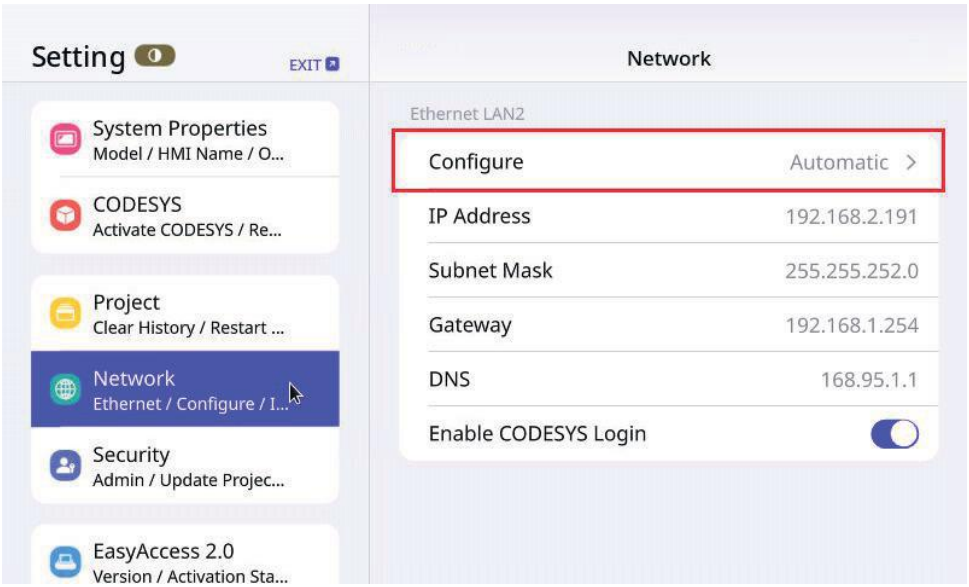
4. Configure HMI IP Address

Automatic IP Configuration

Step 1. Power on the HMI and connect to LAN. Ensure there is a DHCP server on the LAN.

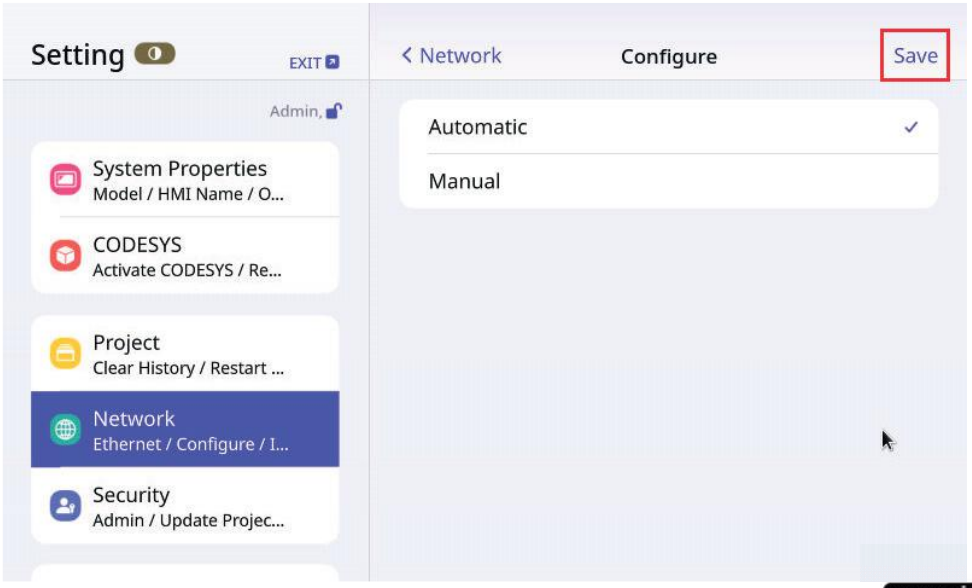
Step 2. Tap the icon in the top left corner of the HMI.

Step 3. Tap [Network] from the left menu, then [Configure] on the right, and try to modify settings.



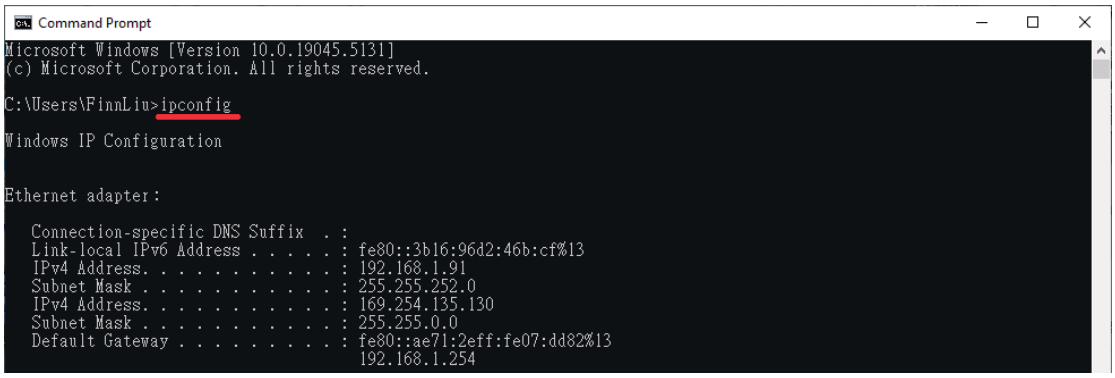
Step 4. To modify settings, log into the system settings. Enter the default password 111111 and press enter.

Step 5. Select [Automatic] and click [Save]. Once successful, the HMI will obtain a LAN IP address.

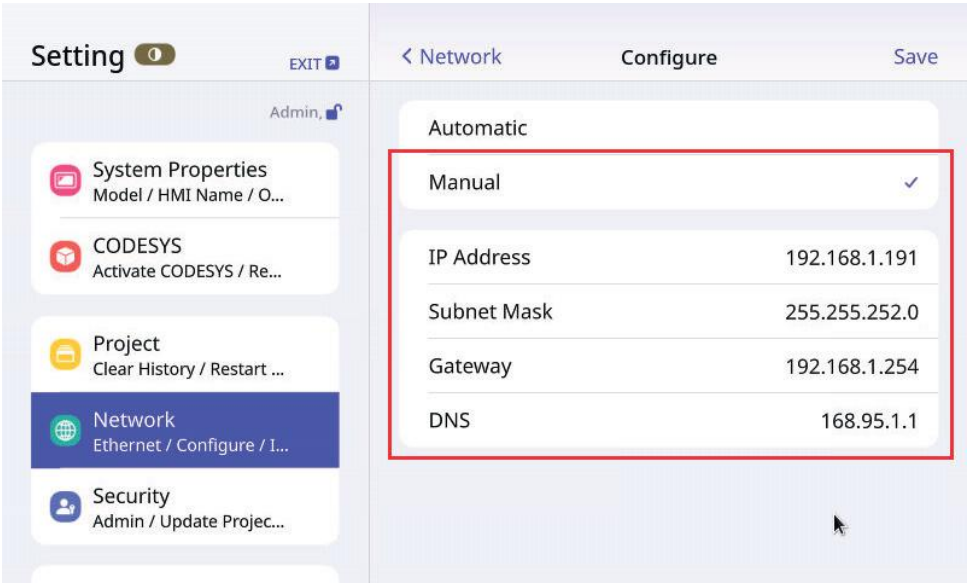


Manual IP Configuration

Step 1. If the LAN has no DHCP server, open the command prompt by typing 'cmd' in the computer's search interface. Then, use the command 'ipconfig' to check the computer's network settings.



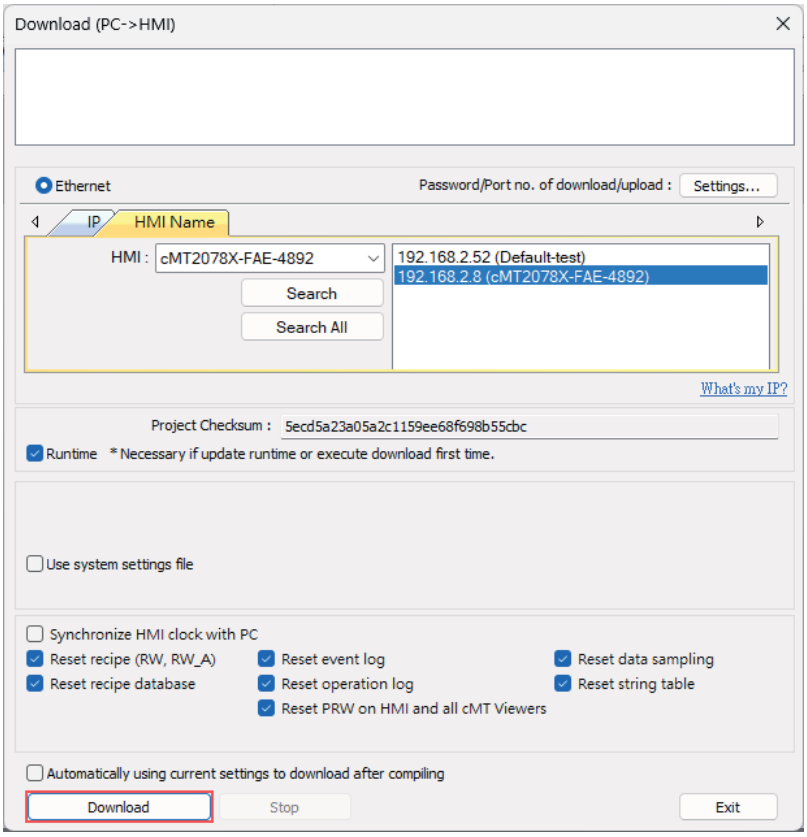
Step 2. Choose [Manual] in Network settings, input the same subnet as the computer, and click [Save]. Once successful, the HMI will obtain a LAN IP address.



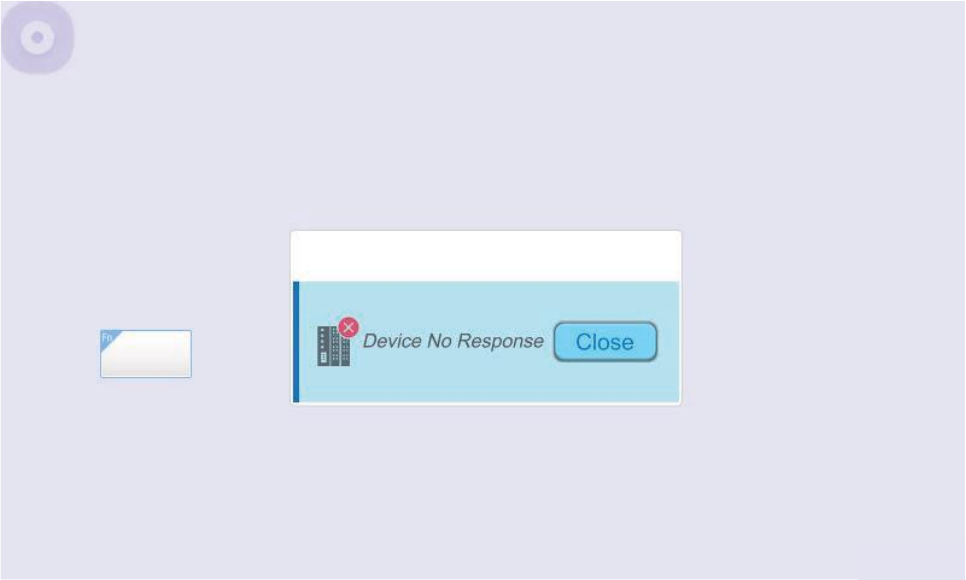
5. Download Project File to HMI

Step 1. Click [Project] » [Download (PC->HMI)].

Step 2. Select the target HMI for download and click [Download].



Step 3. After downloading, verify the HMI interface. If the following screen appears, it indicates communication failure between HMI and PLC. Check connections and communication parameter settings.



Step 4. If the following screen appears, it indicates successful communication between HMI and PLC.