Weintek USA, Inc.                                              Rev. Oct 9, 2018

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# Weintek HMI to ABB AC500-eCo-CPU PLC

**Introduction:** This instruction discusses how to communicate between Weintek cMT3090 HMI and ABB AC500-eCo-CPU PLC via Codesys Ethernet protocol. The purpose of this document is to show how to correctly set up communications, including exporting tags from ABB Automation Builder and importing tags into Easybuilder Pro.
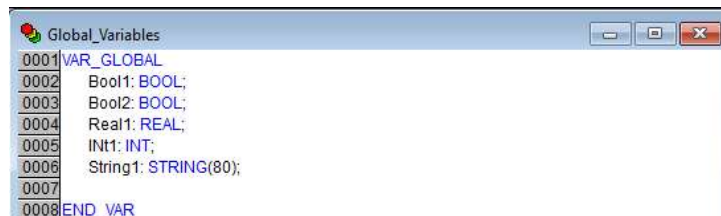
**Equipment:**

A) Weintek cMT3090 HMI
B) ABB PM554-ETH PLC(AC500-eCo-CPU)

     Note: Easybuilder Pro version 6.01.02 and greater supports importing the .SYM file format, which is a tag file generated by ABB Automation Builder.
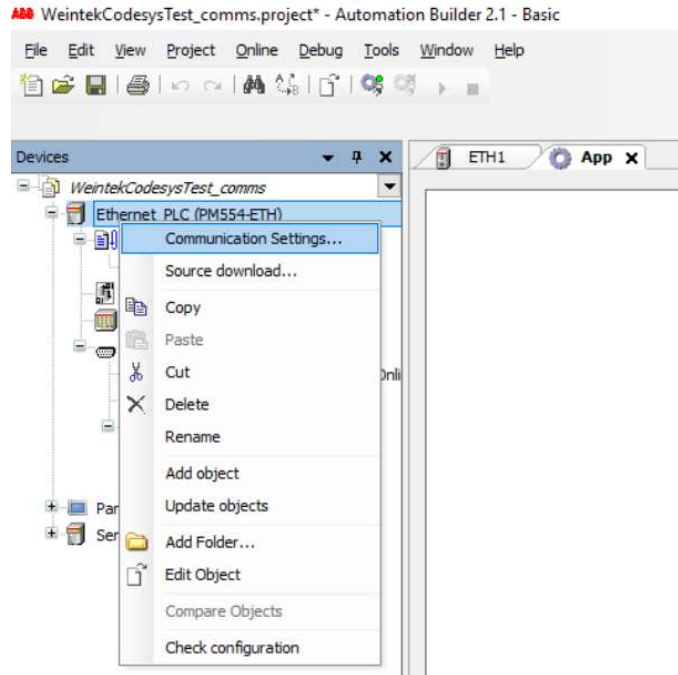
**Details of the Communication Setting (PLC Side):**

1. Launch ABB Automation Builder and choose the PLC model PM554-ETH.
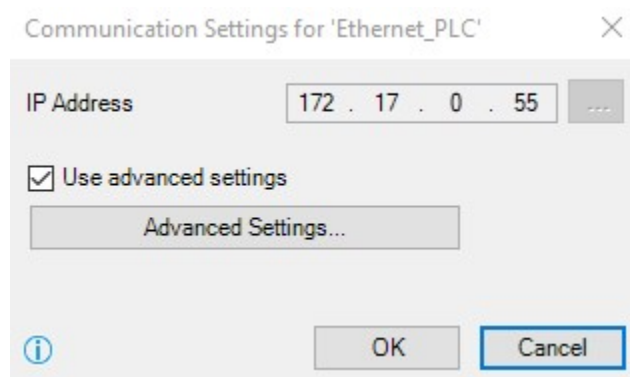2. Create tags on the Global_Variables window.

3. Right click on the PLC and go to [Communication Settings].
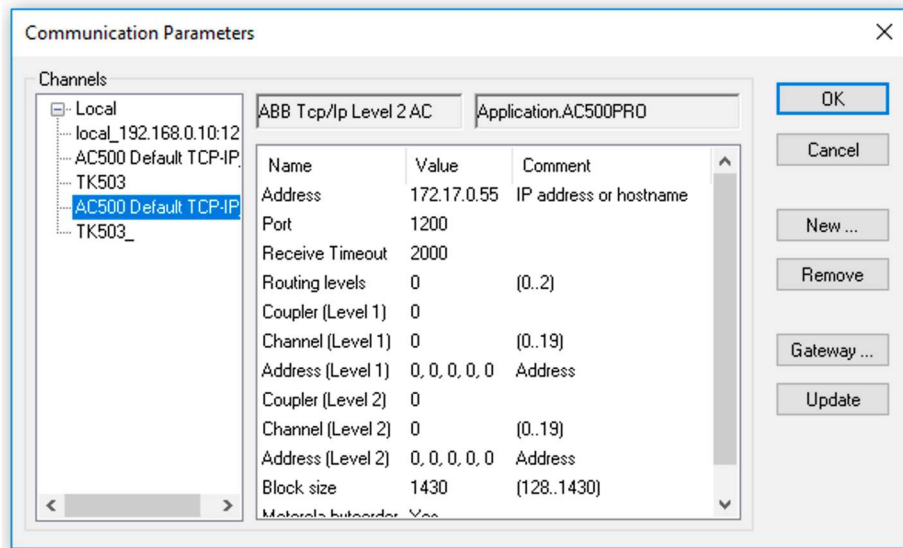


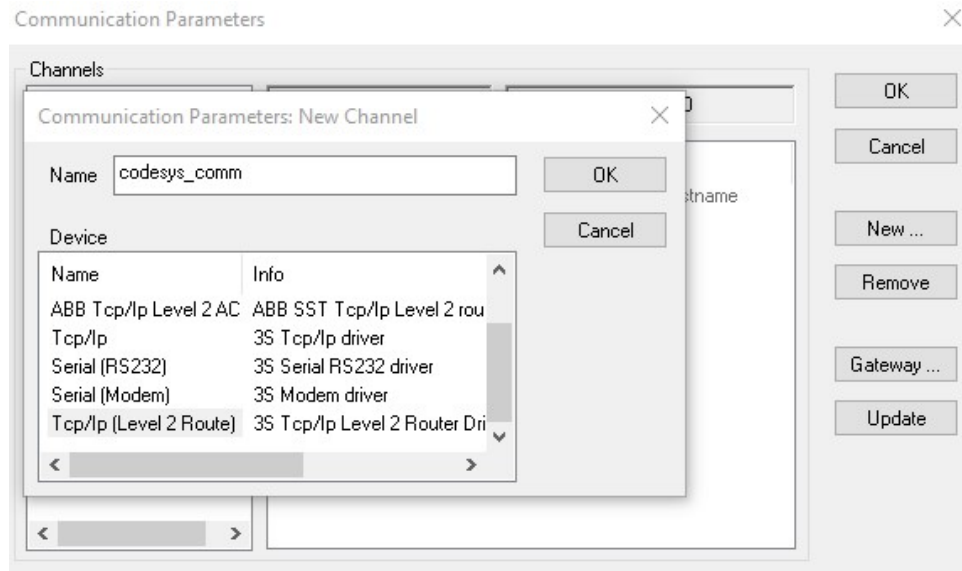4. Check the [Use Advanced Settings] checkbox, and then click the [Advanced Settings] button.

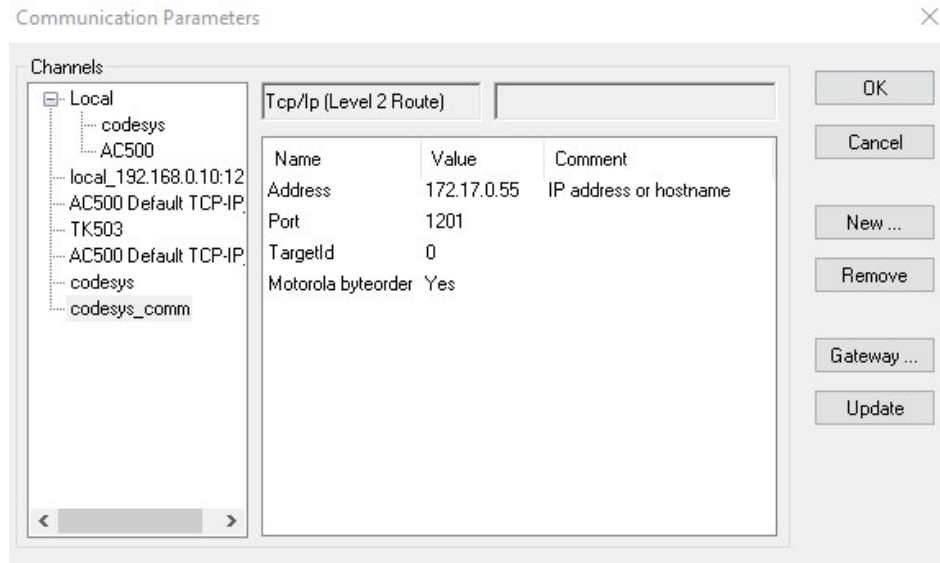5. This window shows all the communication settings.



6. Click on [New] to add a new protocol. Enter a name and choose [TCP/IP (Level 2 Route)], which is an Ethernet protocol defined by 3S company, for the HMI communication protocol. Click [OK].
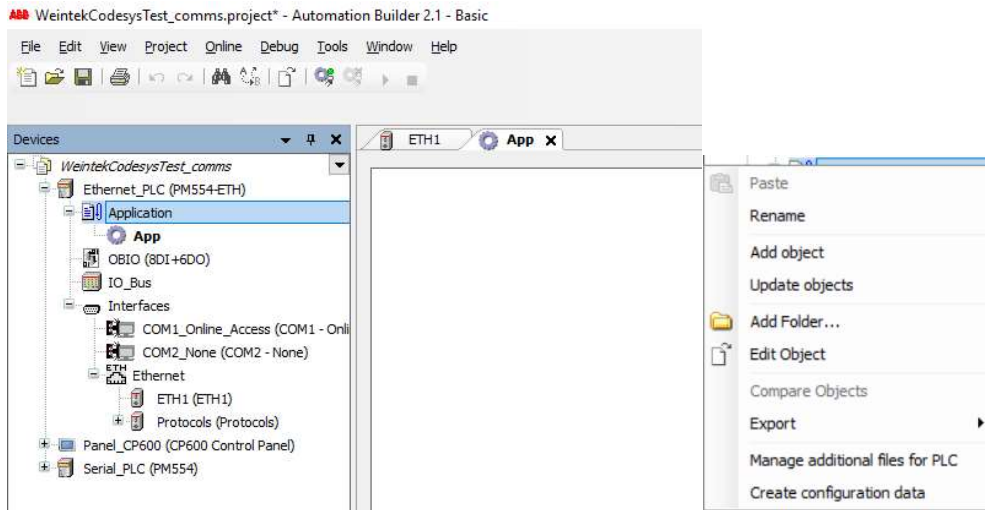
7. Enter an IP address. Click [OK].



**Export tag file-**

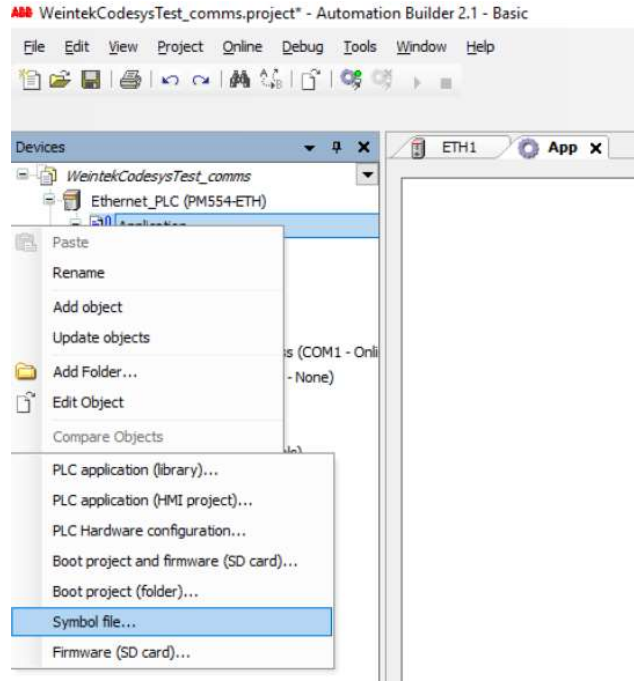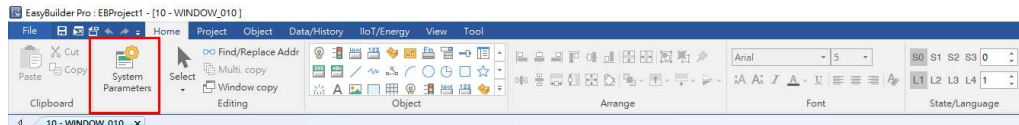8. Right click on [Application].

9. Click [Export] » [Symbol file]. Select a desired location folder to save the .SYM file on the PC.



**Details of the Communication Settings (HMI Side):**

1. Open a new project in Easybuilder Pro and choose the HMI model cMT3090.
2. To get the HMI taking to the PM554-ETN PLC, go to [Home] » [System Parameters].

3. Add [Codesys V2(Symbolic Addressing)(Ethernet)] driver to the Device List.



4. Click on [Setting] on the previous window. Enter the IP address and port number. Choose [TCP/IP (Level 2 Route)] and check [Motorola Byteorder] checkbox. Click [OK].

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**Import tag file-**

5.  Click on [Import tags].
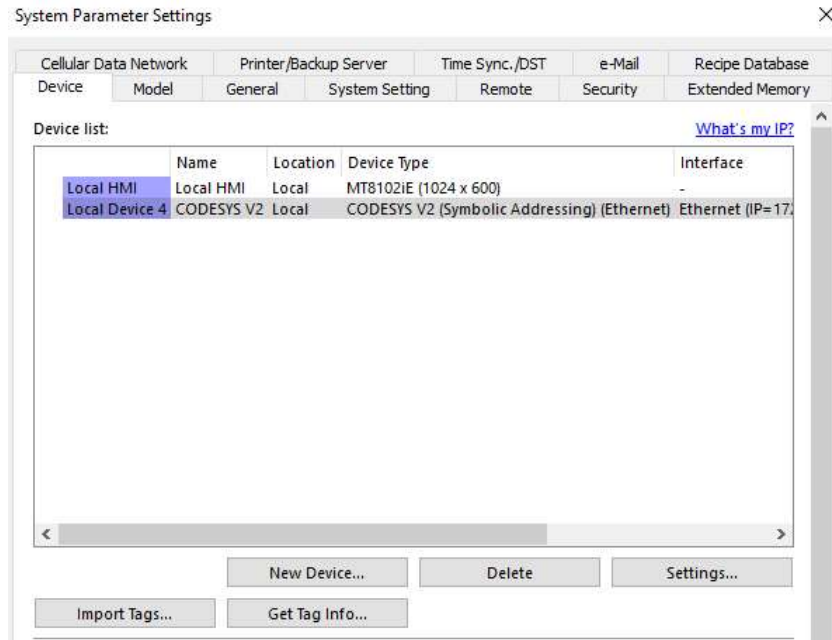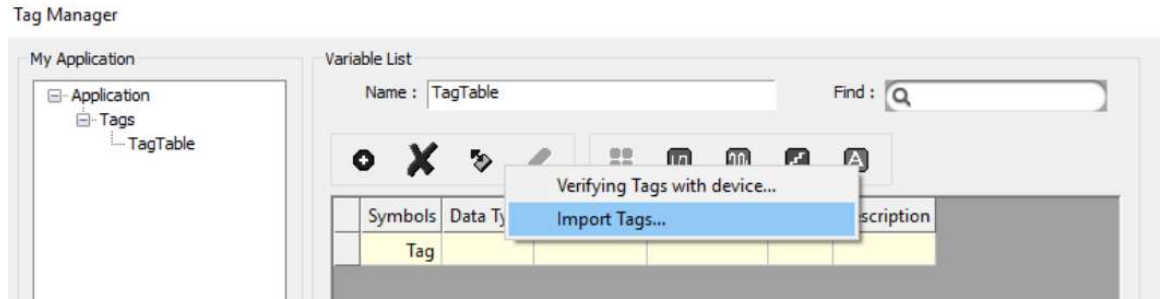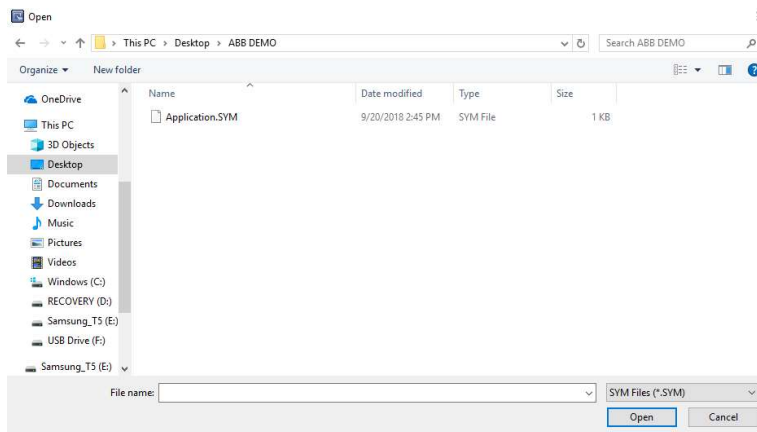


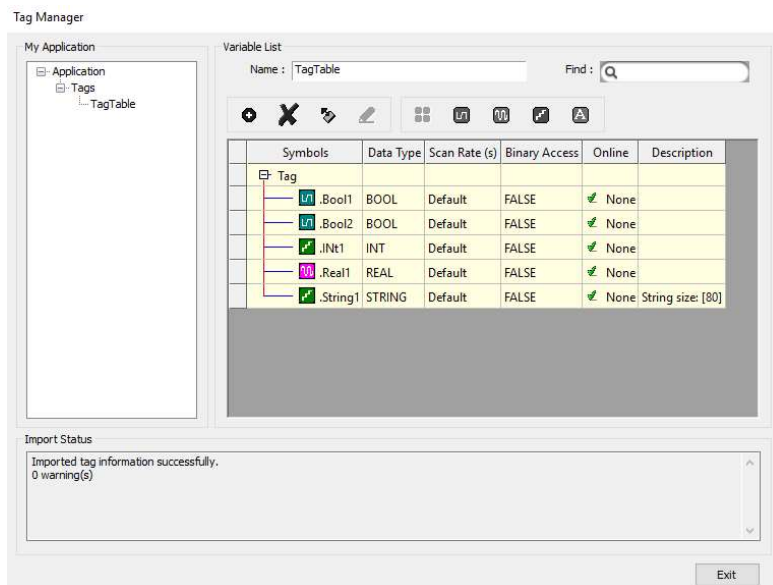6.  Click on the icon highlighted in red.
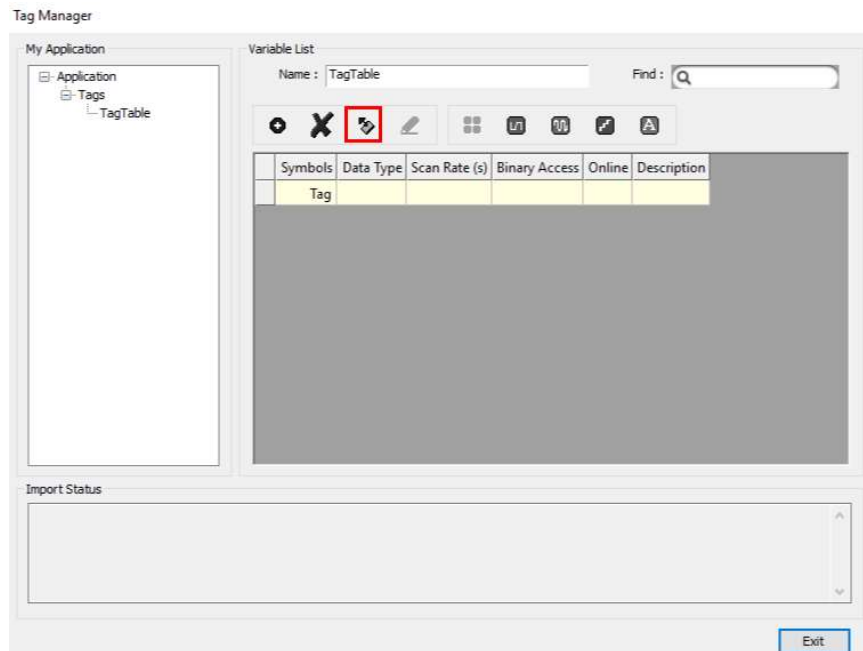
7. Click on [Import Tags].



8. Navigate to the .SYM file. Select this generated file and click [Open].



9. The imported tags will be displayed as shown.
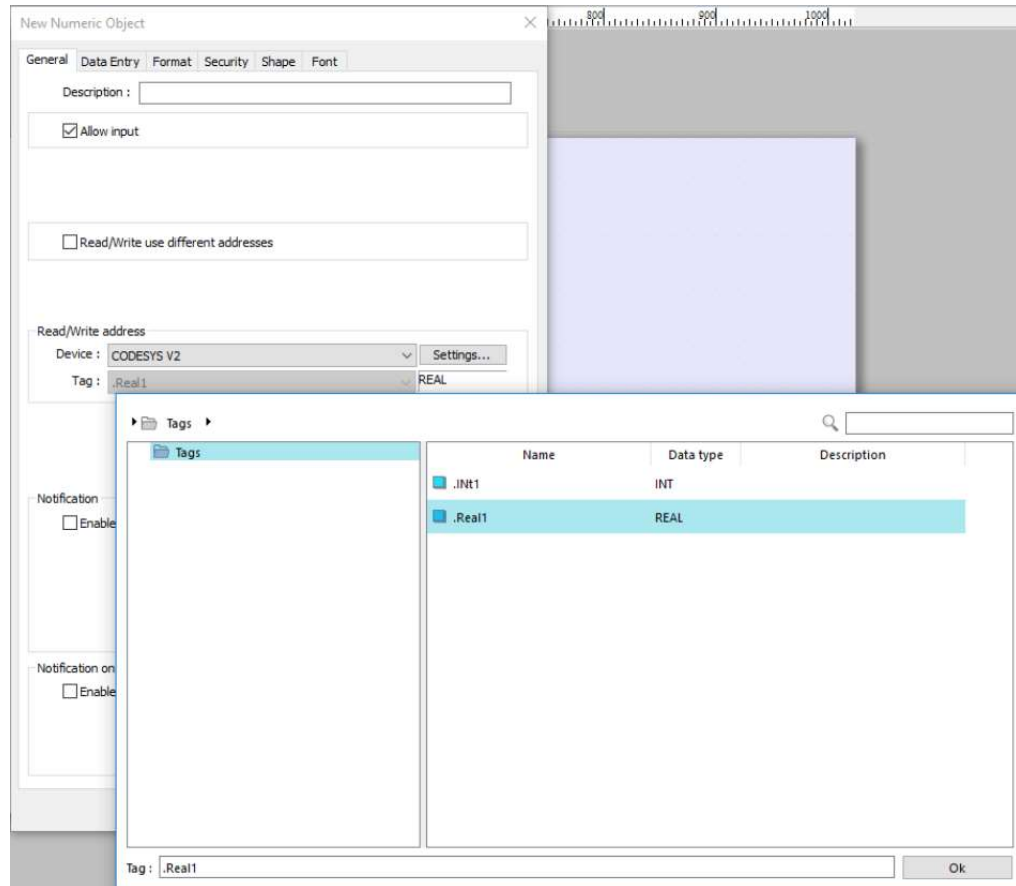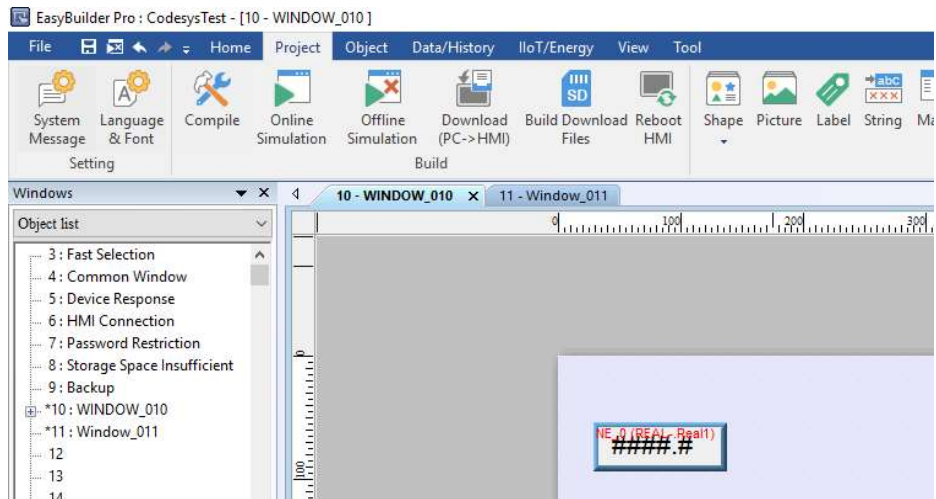
**Programming visualization-**

10. Create a [Numeric] object. Select an address under [Read/ Write address].



11. Go to [Project] » [Online Simulation] to run online simulator.

**References:**

Weintek Labs website: http://www.weintek.com

ABB AC500-eCo-CPU PLC
https://new.abb.com/plc/programmable-logic-controllers-plcs/ac500-eco/cpus

Founded in 1996, WEINTEK LABS is a global-leading HMI manufacturer and is dedicated to the development, design, and manufacturing of practical HMI solutions. WEINTEK LAB's mission is to provide quality, customizable HMI-solutions that meet the needs of all industrial automation requirements while maintaining customer satisfaction by providing "on-demand" customer service. WEINTEK LABS brought their innovative technology to the United States in 2016, WEINTEK USA, INC., to provide quality and expedient solutions to the North American industrial market.

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