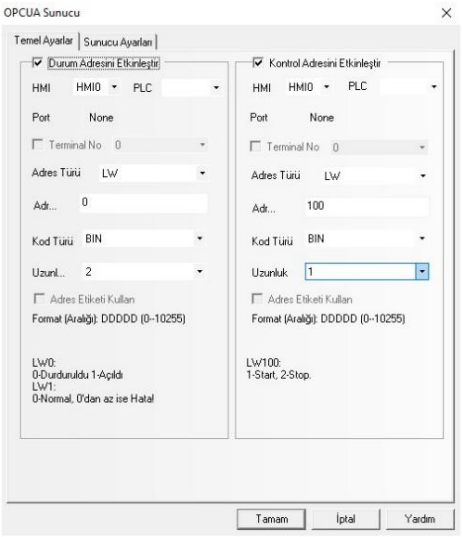
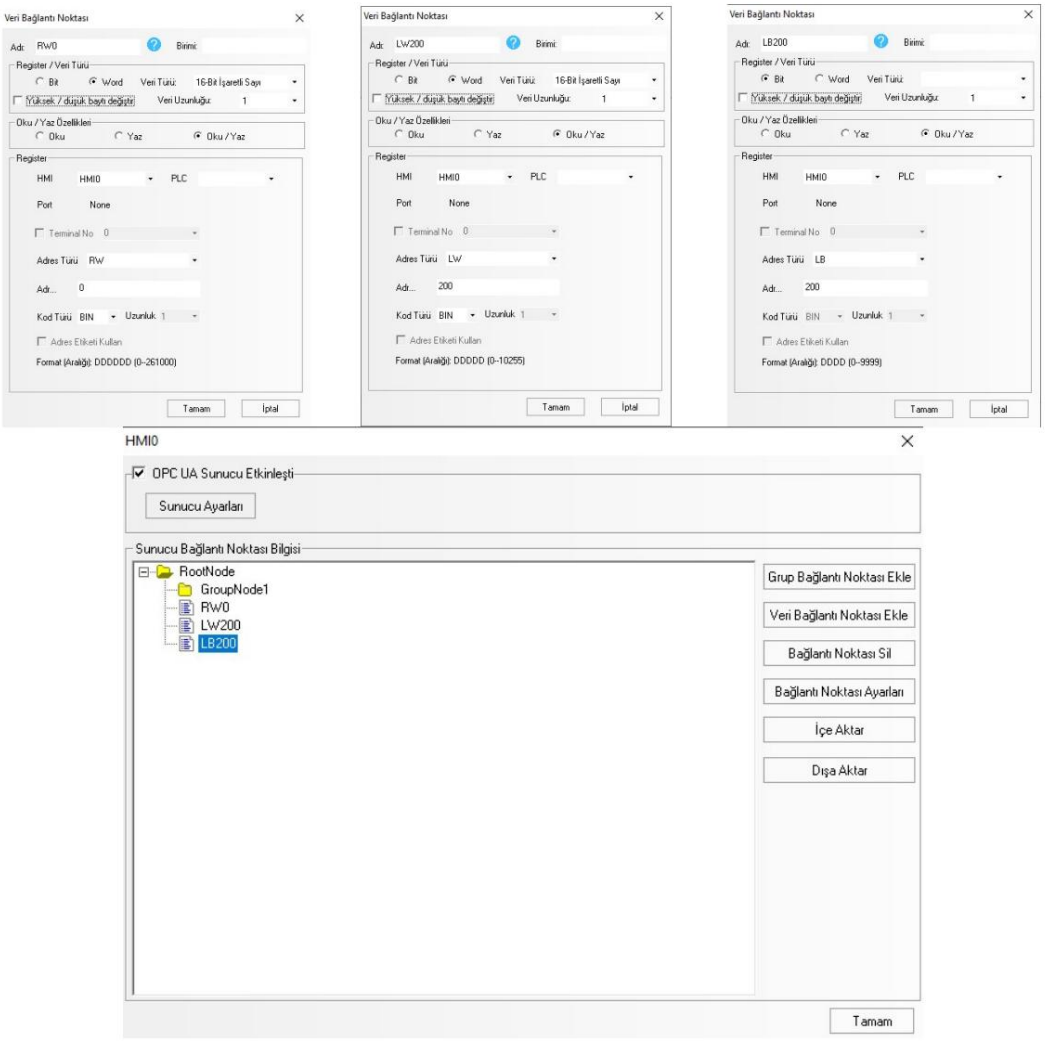
GMTCNT TSG SERVICE HMI DA OPC UA SERVER USE

HMI(PDesigner) SETTINGS

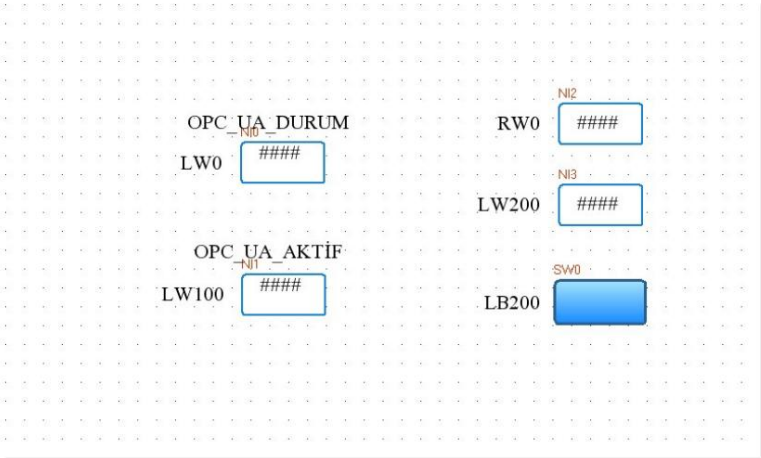
The settings to be made in the PDesigner program for OPC UA Communication must be made in the following order. First, the correct hardware must be added to the configuration section. An IP address must be assigned to the added HMI. In our application, we defined the IP address 192.168.235.137 to the HMI. Then, in the OPC UA section, the OPC UA server of the HMI is activated by selecting OPCUA ---> OPCUA Server from the IOT tab at the top of the PDesigner program. After activation, Status Address and Control Address are activated from the Server Settings --> Basic Settings tab and the address type and address values are selected and entered. In practice, we chose LW0 as the Status Address and LW100 as the Control A



After the settings in this section are made, click "OK". Then a new group port is created and then a new data port is added.
In the window that opens after the added data port, selections such as Data Type, Read/Write feature, address type and address number of the variable with which you want to communicate are made. In practice, we will communicate RW0, LW200 and LB200 addresses, so we added 3 data ports and entered the variable information as you see below.



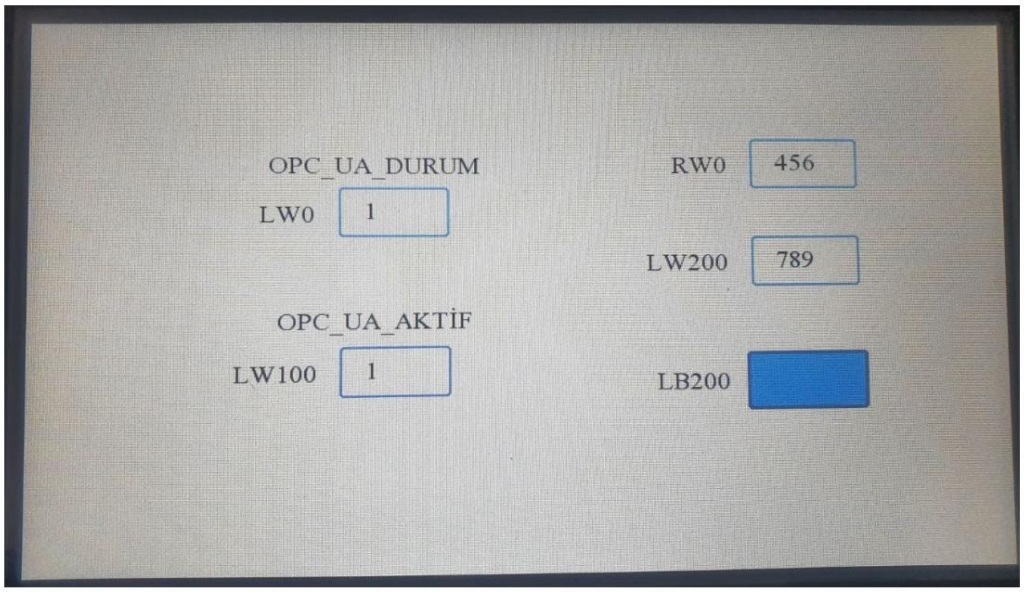
After the settings in this section are made. HMI's window design is created. To activate OPC UA, the number component with address LW100 must be added to the 0th window of the HMI, and then "start" operation is performed by writing 1 to this variable, and "stop" operation is performed by writing 2 to this variable. The value of the LW0 address must be 1 along with “start”. If this value remains 0, it indicates that a communication error has occurred.

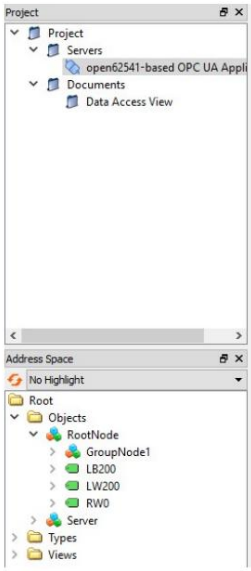


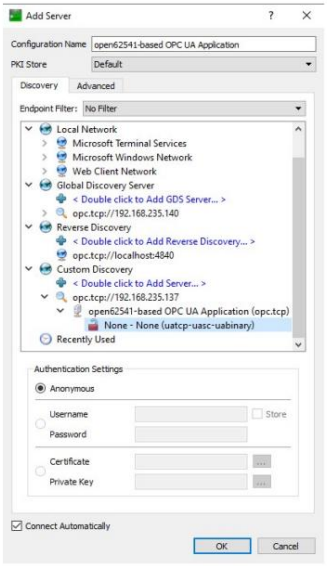
UaExpert SETTINGS

Unified Automation UaExpert program was used for testing.
Before making the settings here, 1 must be written to the LW100 number component on the HMI screen. If LW100 is set to 1 and LW0 is also 1, it means that the communication process has been successful and no communication error has occurred.

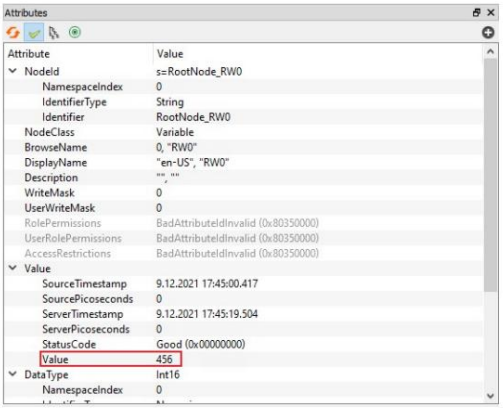
Then, a new project is created in the Unified Automation UaExpert Program and a new server is added by pressing the blue “+” icon at the top of the program. In the window that opens, we write the IP address we gave to the computer in the "Global Discovery Server" section. In the “Custom Discovery” section, we write the IP address of the HMI. Then, if the device is not visible, right-click on the HMI's IP address under "Custom Discovery" and click on the phrase "rebrowse". When the device is found, the open lock icon will appear as shown at the bottom. After this stage, you can exit by pressing the "OK" button.

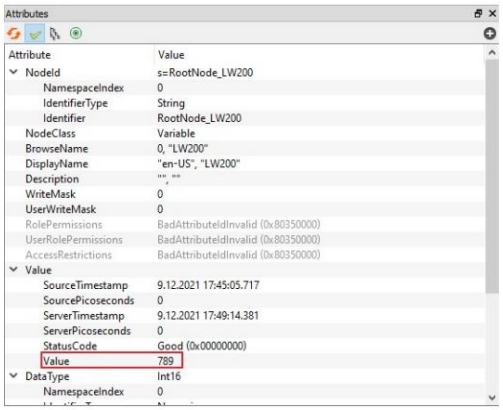


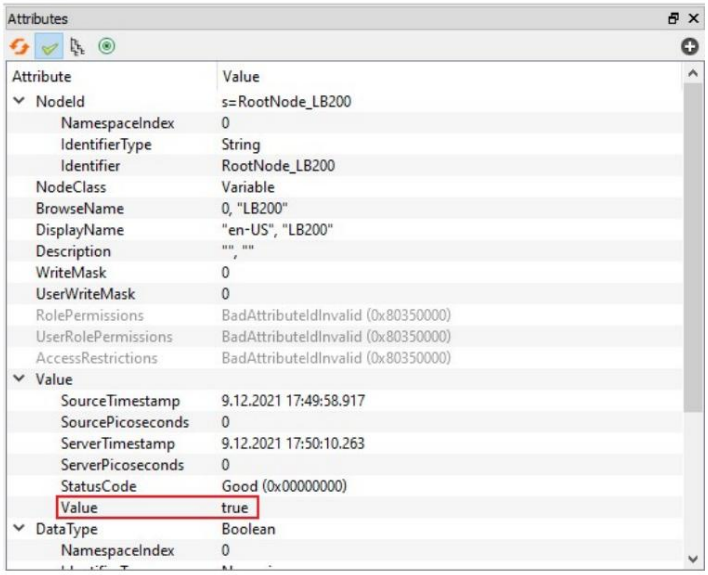




By clicking on the variables under Address Space --> Objects --> RootNode --> GroupNode1, we can read and write the value of the bit or word variable you have selected from the "Value" value in the Attiributes window at the top right.







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