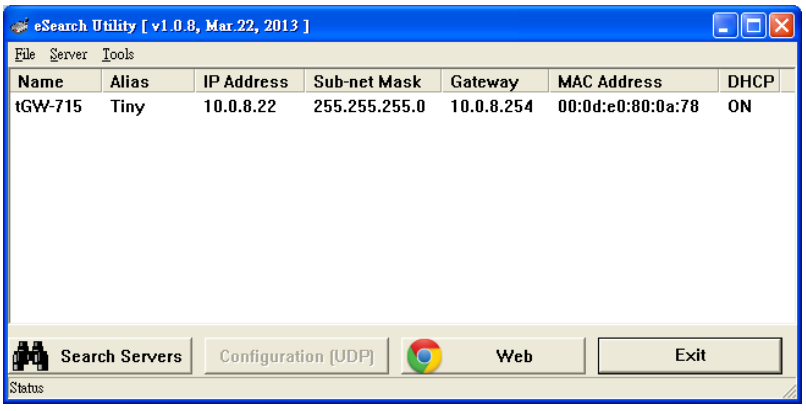
分類/Classification	☐ tDS ☑ tGW ☐ PETL/tET/tPET ☐ DS/PDS/PPDS ☐ tM-752N ☐ I/O Card ☐ VXC Card ☐ VxComm ☑ Other (LabVIEW)				
作者/Author	Tammy	日期/Date	2015-05-14	編號/NO.	FAQ-041

Q: How to use LabVIEW for working with tGW-700 Modbus TCP/RTU Gateway?

A: Refer to the following for a detailed description of the configuration process:

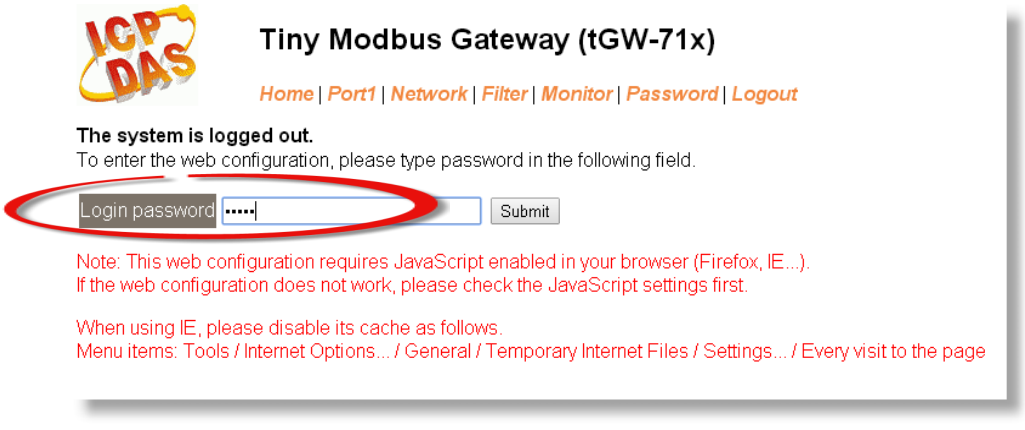
Step 1: Run the eSearch Utility to search for tGW-700 series module connected to the network.



Step 2: Configure the correct network settings for the required tGW-700 series module.

Download the Quick Start Guide.

Step 3: Click the **"Web"** button to log in to the web configuration pages for the tGW-700 series module. Once the login screen is displayed, enter the password in the login password field (**use the default password is "admin"**) to enter the configuration web page.

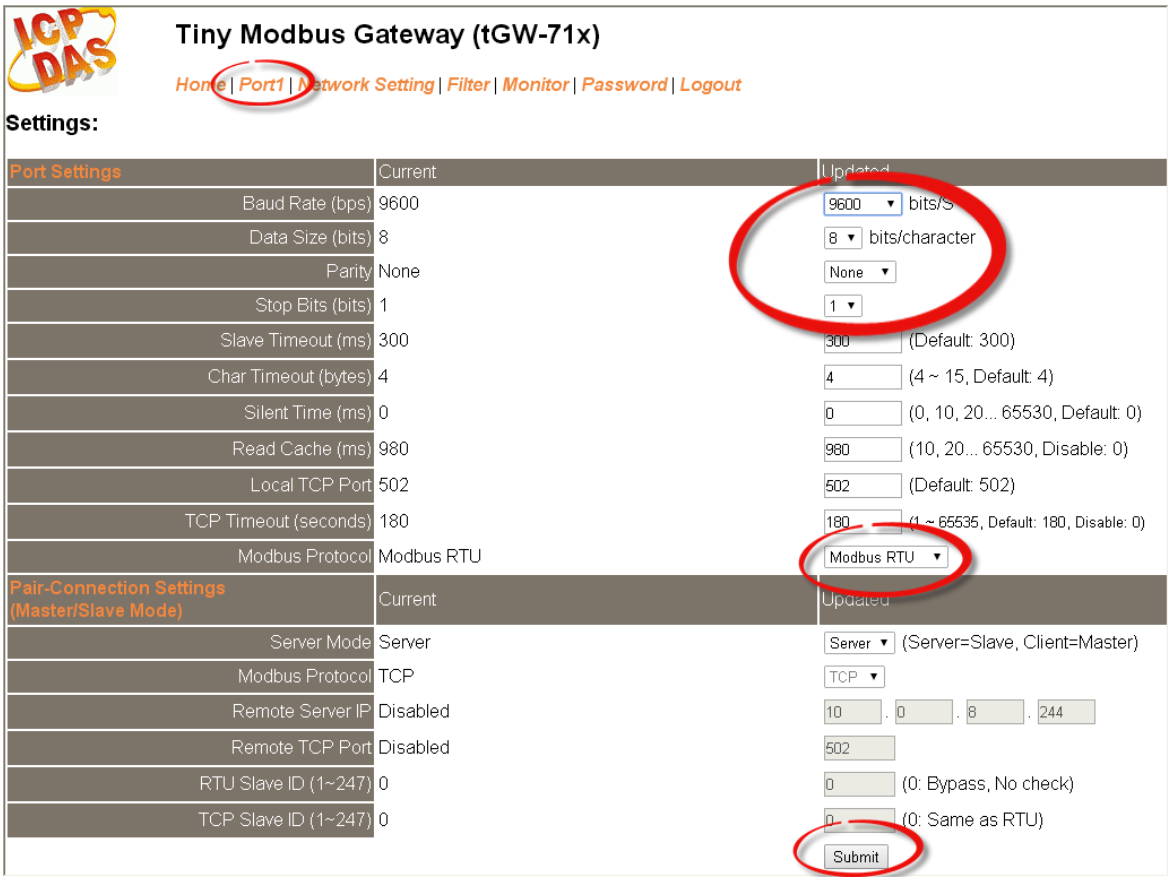


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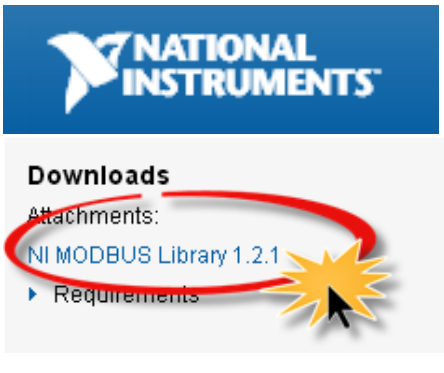
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Step 4: Click the **"Port1"** tab to display the Port1 Settings page.

Step 5: Select the appropriate **Baud Rate, Data Format and Modbus Protocol** settings (e.g. 9600, 8N1, Modbus RTU) from the relevant drop down options depend on the Modbus device (e.g., M-7022).



Step 6: Download the **NI MODBUS Library** and decompress it to a temp folder. The **NI MODBUS Library** can be downloaded from the National Instruments (NI) web site:
http://www.ni.com/example/29756/en/



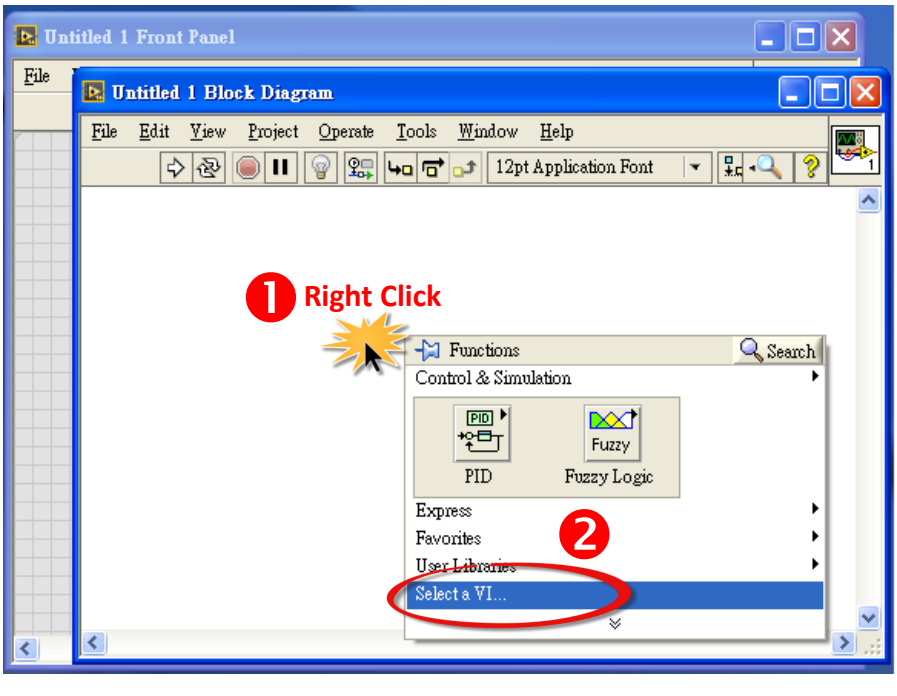
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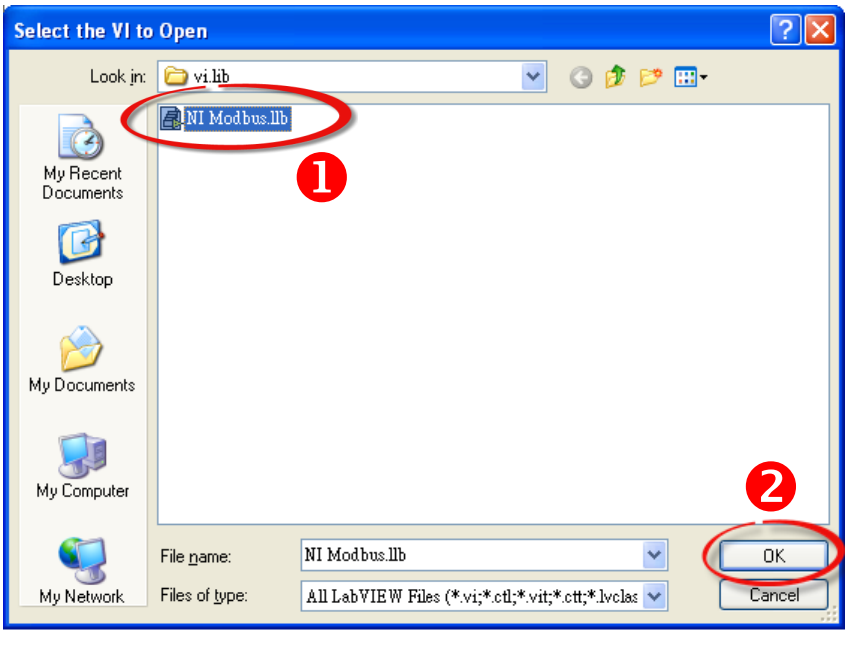
Step 7: Launch the LabVIEW.

Step 8: **Right click** on the **Block Diagram** to open the **Functions Palette**.
(Or select the **"Function Palette"** item from the **"View"** menu.)

Step 9: In the **Functions Palette**, select the **"Select a VI..."** item



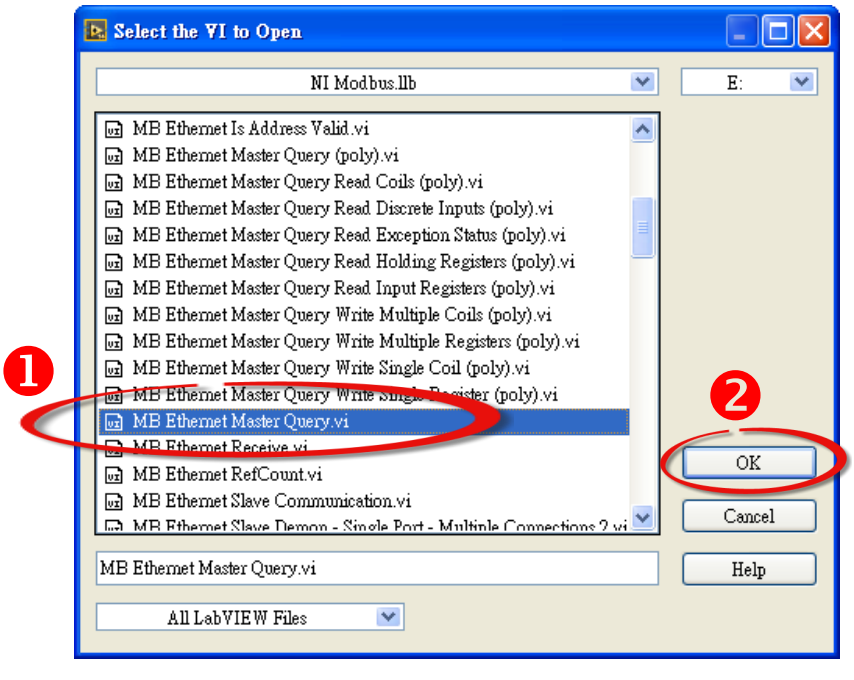
Step 10: Select a "**NI Modbus.llb"** file which is in self-extracting folder in the **"Select the VI to Open"** dialog box.



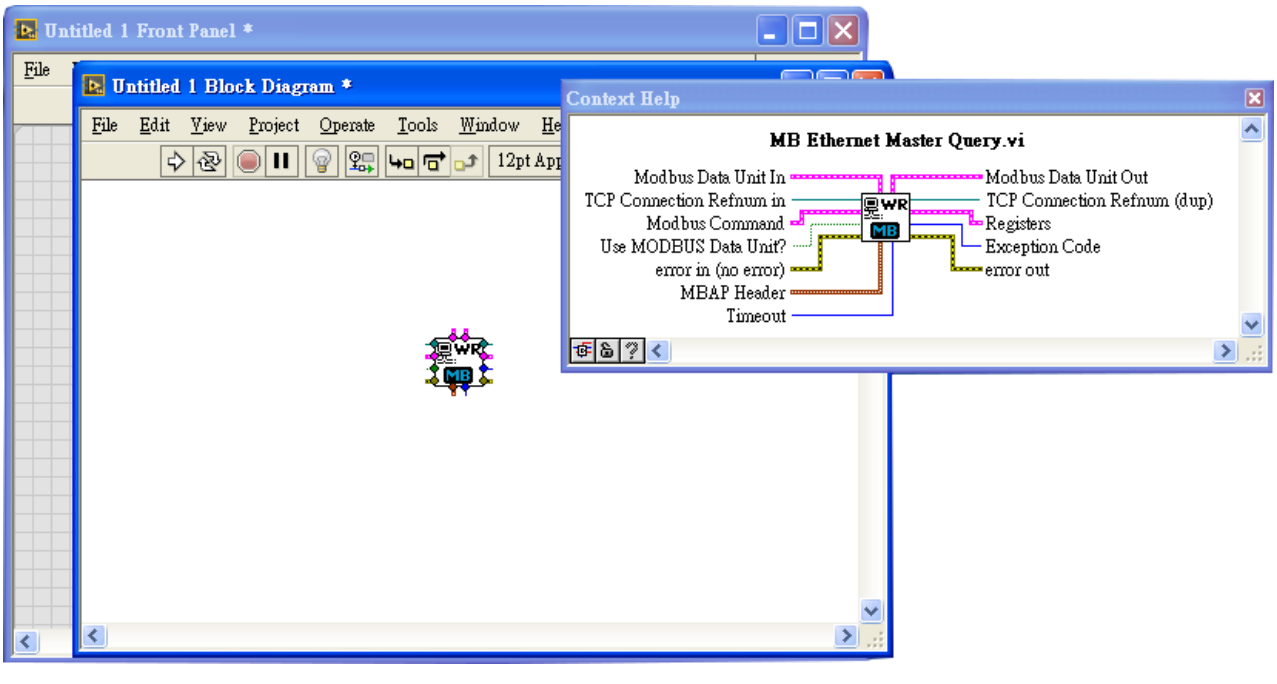
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Step 11: Highlight the "**MB Ethernet Master Query.vi**" and click on the **"OK"** button.



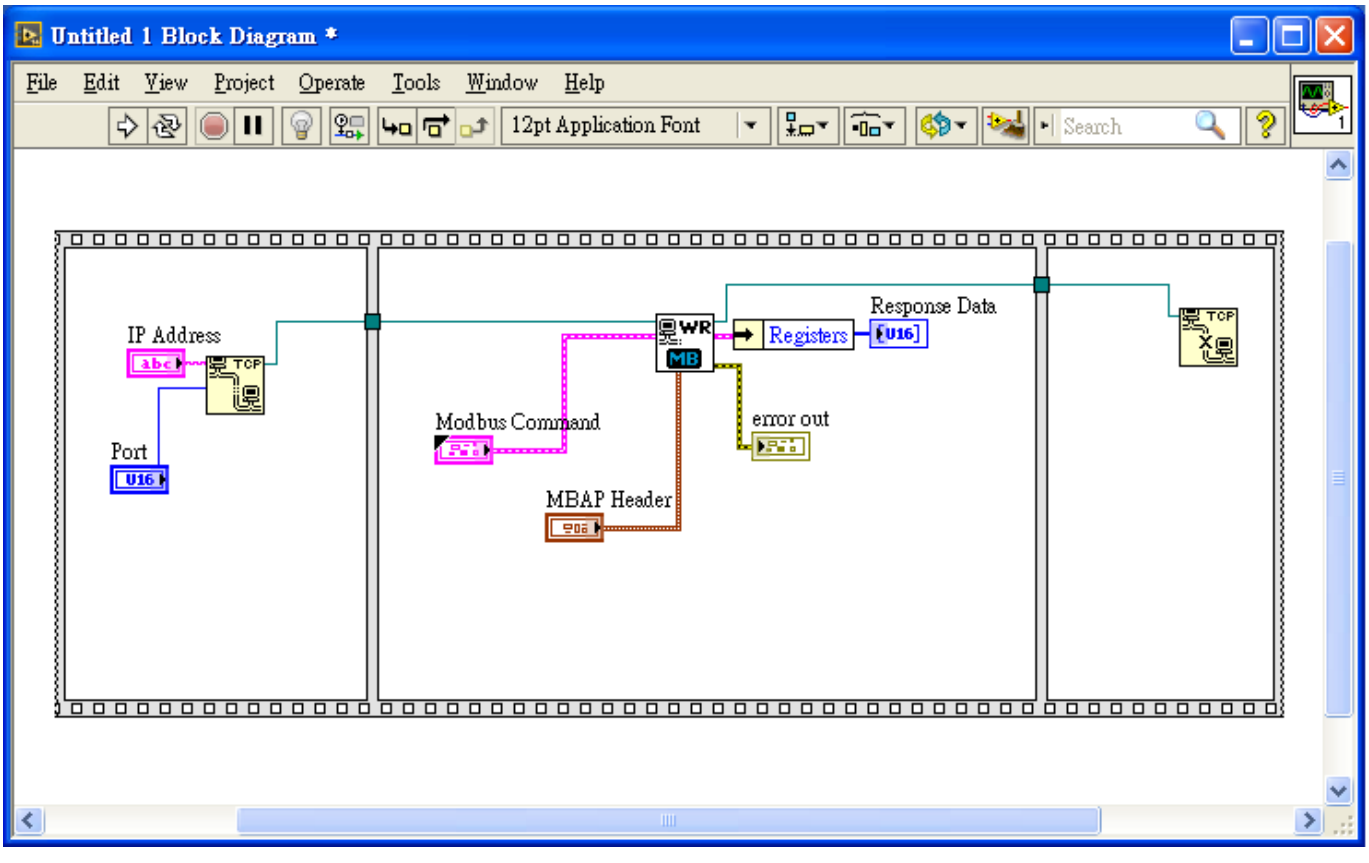
Step 12: Put the icon of the sub-vi to where desired. The simple arguments of a sub-vi are showed in help window.



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Step 13: Edit the LabVIEW program as below:

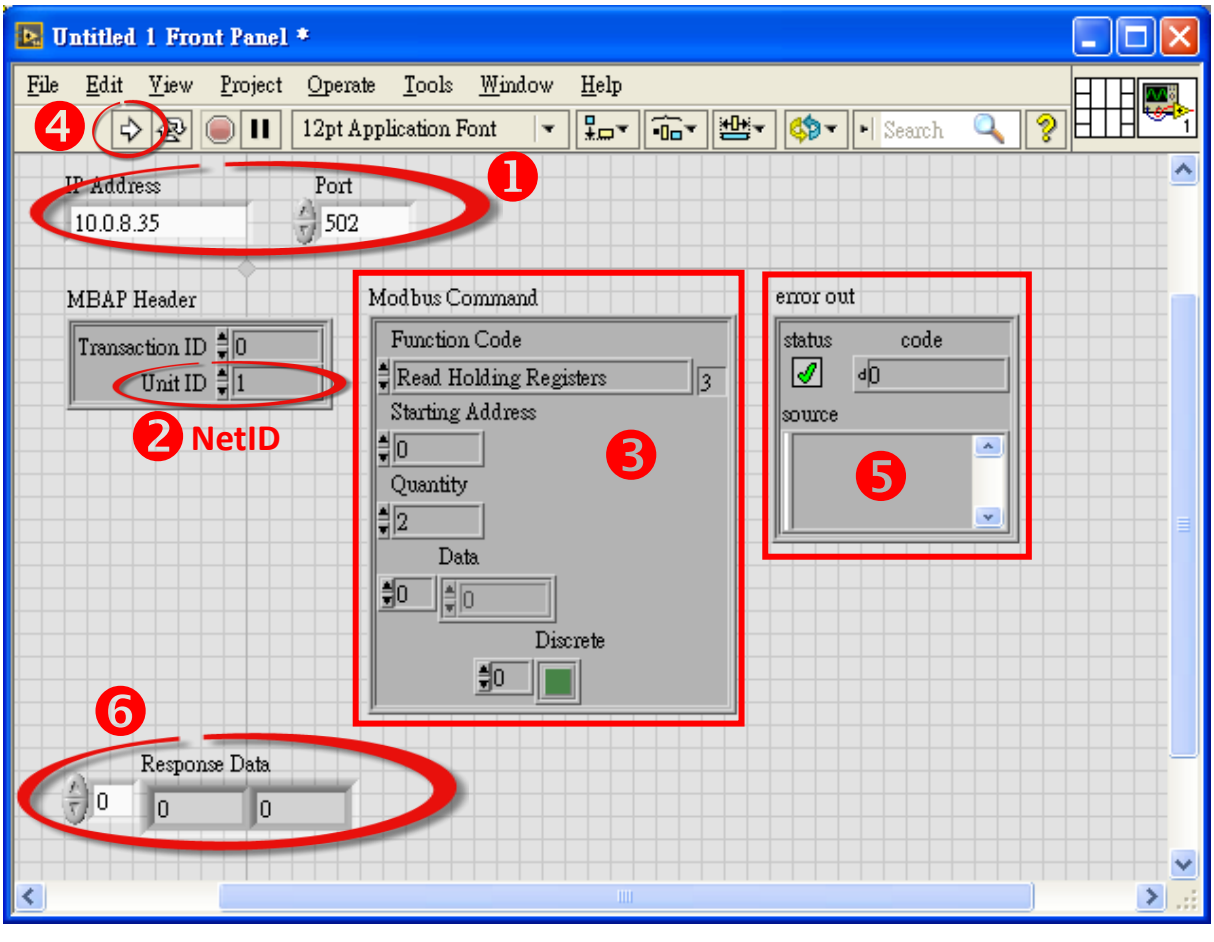


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Step 14: Performing the Modbus TCP to RTU sample program as follows:

1. Enter **IP Address and TCP Port** of remote Modbus slave (e.g. tGW-700).
2. **3.** Enter **Net ID and Modbus Command** depend on the remote Modbus slave (e.g., M-7022).
4. Click the **"Run"** button to start test.
5. Confirm that the **"error out"** dialog box is show **status information** is normal.
6. Confirm that the **Response Data** is correct.



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