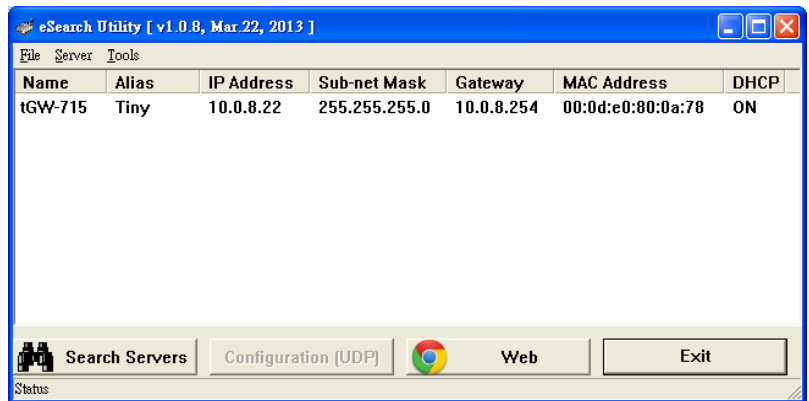


分類/Classification	<input type="checkbox"/> tDS	<input checked="" type="checkbox"/> tGW	<input type="checkbox"/> PETL/tET/tPET	<input type="checkbox"/> DS/PDS/PPDS	<input type="checkbox"/> tM-752N
	<input type="checkbox"/> I/O Card	<input type="checkbox"/> VXC Card	<input type="checkbox"/> VxComm	<input checked="" type="checkbox"/> 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.



### Tiny Modbus Gateway (tGW-71x)

[Home](#) | [Port1](#) | [Network](#) | [Filter](#) | [Monitor](#) | [Password](#) | [Logout](#)

The system is logged out.

To enter the web configuration, please type password in the following field.

Note: This web configuration requires JavaScript enabled in your browser (Firefox, IE...). If the web configuration does not work, please check the JavaScript settings first.

When using IE, please disable its cache as follows.

Menu items: Tools / Internet Options... / General / Temporary Internet Files / Settings... / Every visit to the page

**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).

**Tiny Modbus Gateway (tGW-71x)**

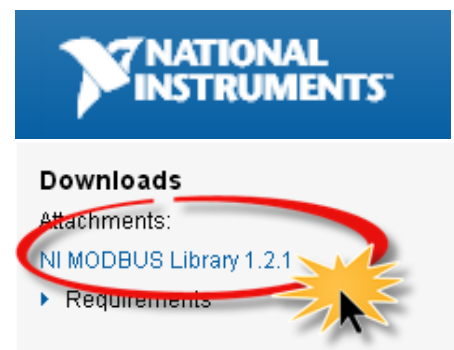
Home | **Port1** | Network Setting | Filter | Monitor | Password | Logout

**Settings:**

Port Settings	Current	Updated
Baud Rate (bps)	9600	9600 bits/s
Data Size (bits)	8	8 bits/character
Parity	None	None
Stop Bits (bits)	1	1
Slave Timeout (ms)	300	300 (Default: 300)
Char Timeout (bytes)	4	4 (4 ~ 15, Default: 4)
Silent Time (ms)	0	0 (0, 10, 20... 65530, Default: 0)
Read Cache (ms)	980	980 (10, 20... 65530, Disable: 0)
Local TCP Port	502	502 (Default: 502)
TCP Timeout (seconds)	180	180 (1 ~ 65535, Default: 180, Disable: 0)
Modbus Protocol	Modbus RTU	Modbus RTU
Pair-Connection Settings (Master/Slave Mode)	Current	Updated
Server Mode	Server	Server (Server=Slave, Client=Master)
Modbus Protocol	TCP	TCP
Remote Server IP	Disabled	10 . 0 . 8 . 244
Remote TCP Port	Disabled	502
RTU Slave ID (1~247)	0	0 (0: Bypass, No check)
TCP Slave ID (1~247)	0	0 (0: Same as RTU)
<input type="button" value="Submit"/>		

**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/>

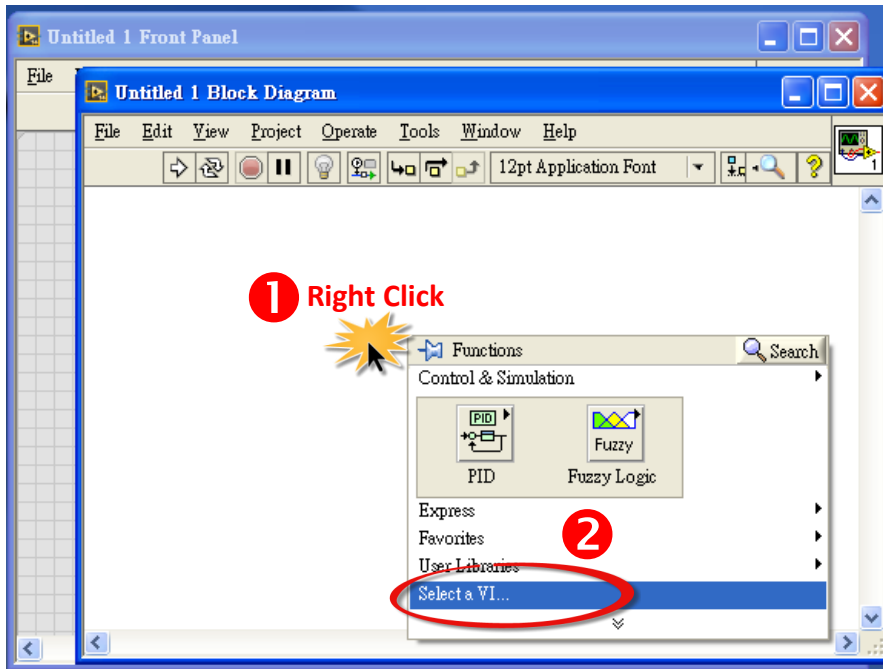


**Step 7:** Launch the LabVIEW.

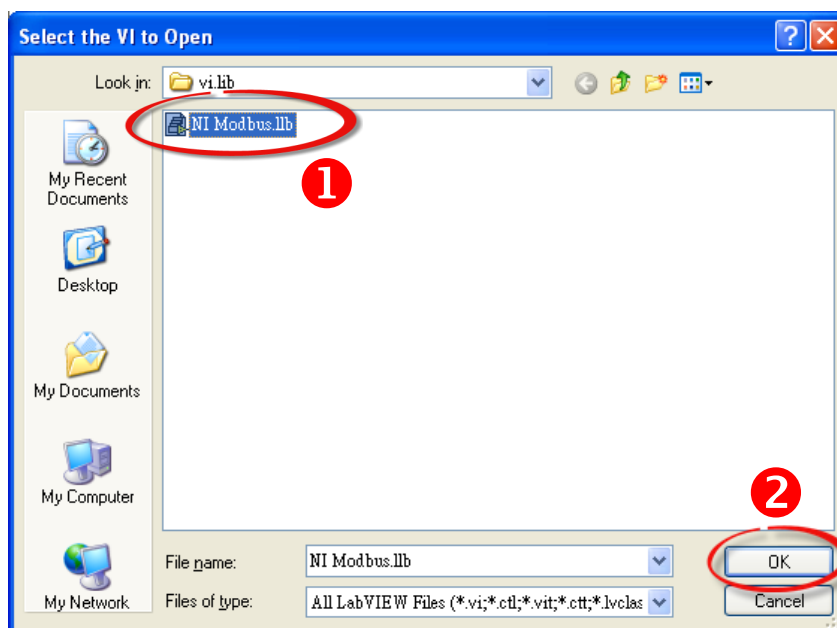
**Step 8:** Right click on the **Block Diagram** to open the **Functions Palette**.

(Or select the “**Function Palette**” item from the “**View**” menu.)

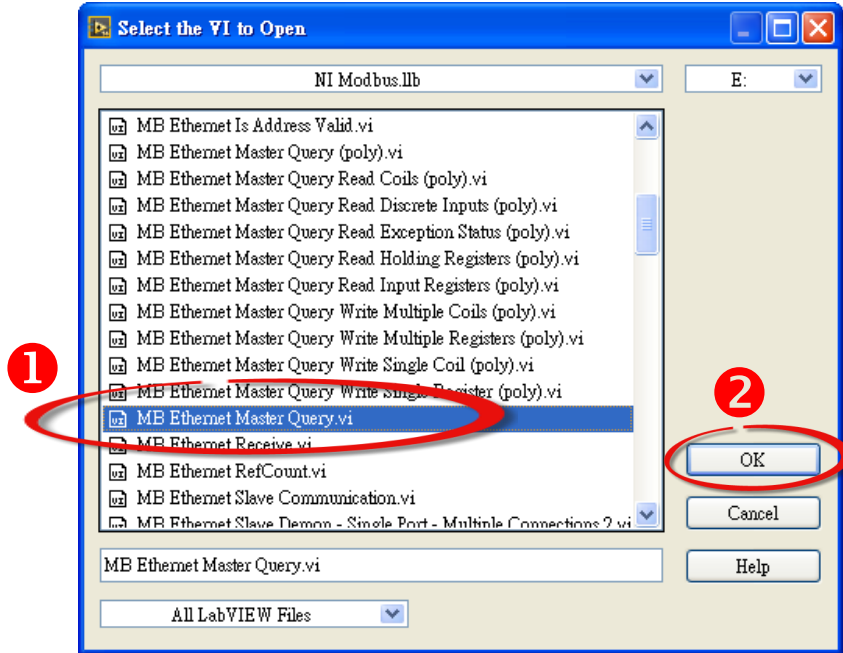
**Step 9:** In the **Functions Palette**, select the “**Select a VI...**” item



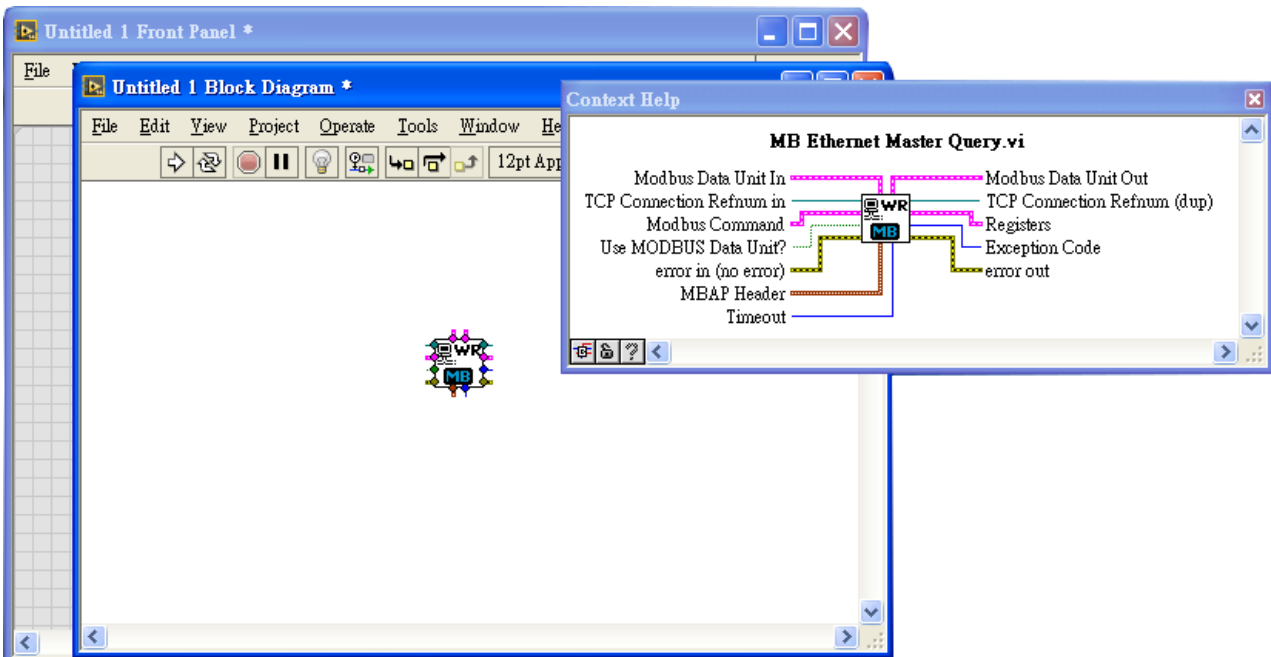
**Step 10:** Select a “**NI Modbus.llb**” file which is in self-extracting folder in the “**Select the VI to Open**” dialog box.



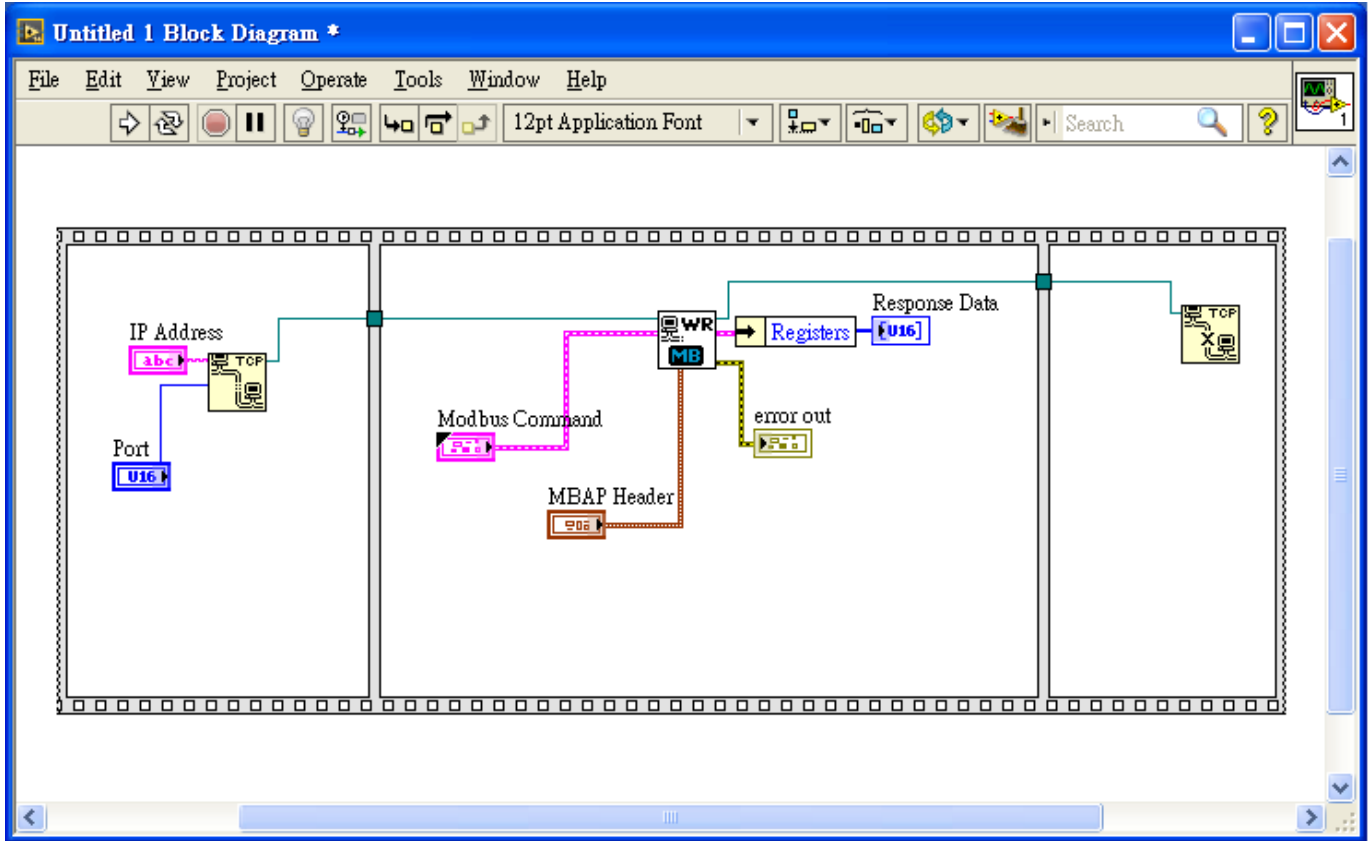
**Step 11:** Highlight the “MB Ethernet Master Query.vi” and click on the “OK” button.



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



**Step 13:** Edit the LabVIEW program as below:



**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.

