How to Use the Win-GRAF PAC to Connect the Modbus TCP Slave Device that Has Two IP Addresses (Redundancy Settings)?

Click the link for more Win-GRAF FAQ

This section will list the way to create the redundant "Modbus Master Request", when one IP of the Modbus TCP Slave devices is disconnected, the other IP can still normally to be read/written data.

In addition, the user can refer the FAQ-009 and FAQ-011 to know how to enable the Win-GRAF PAC as the Modbus RTU/ASCII Master or Modbus TCP/UDP Master.

Application Diagram:
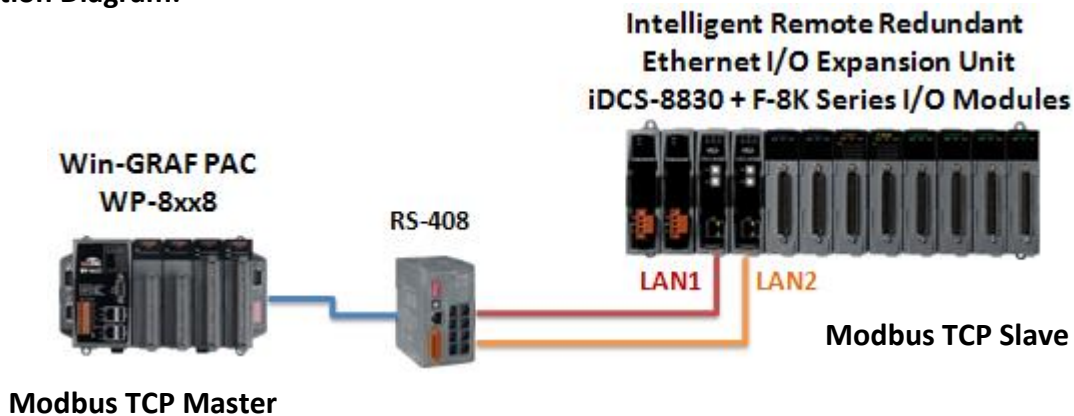
Follow The Steps:

1. Click the "Open MODBUS:", and then click the menu bar "Tools" > "Export".

Each Modbus TCP Master can only set to connect one Slave IP address, so here we will show the way to copy and generate the second Modbus Master to connect the second Slave IP address.
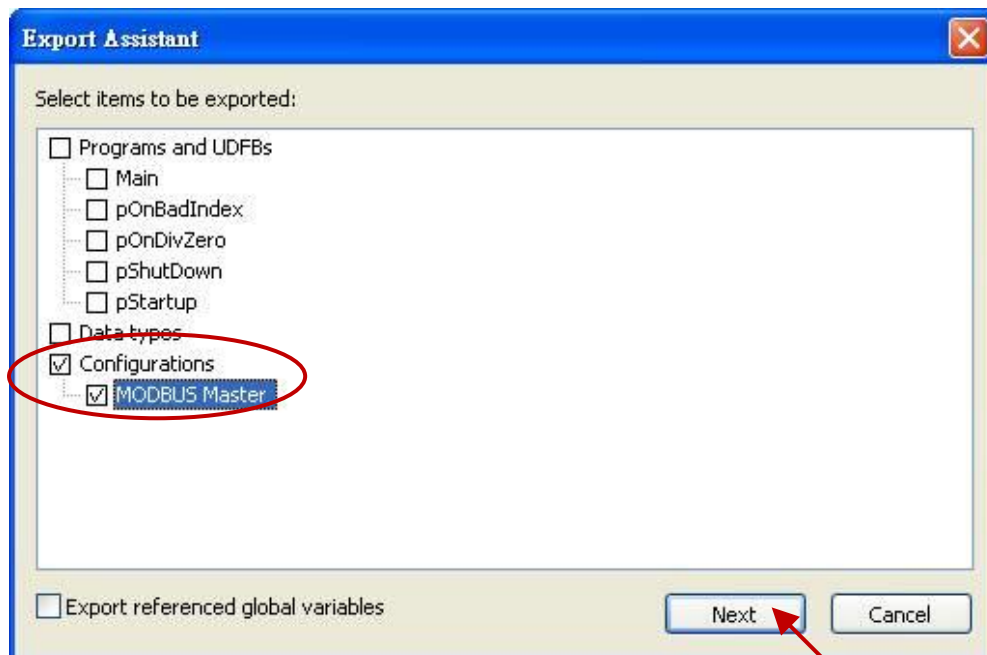
2. In the "Export Assistant" window, click "Export some project items (XNL)" and "Next".

3. Check the "Configurations" and uncheck all other items, and then click "Next".
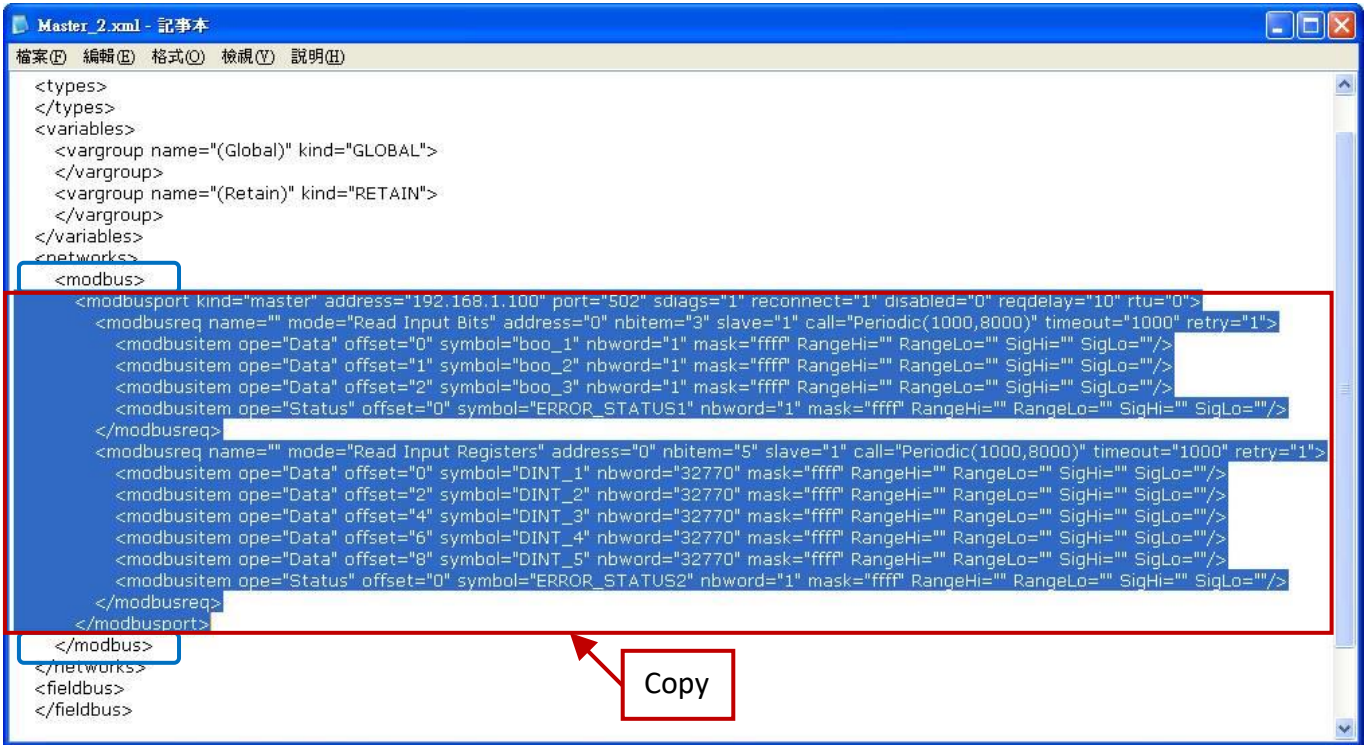
4. Browse a suitable path (default in C:\Win-GRAF\Projects) and named for the file (e.g., Master_2.xml), and then click "Save" button. Finally, click "Finish" to export the settings.
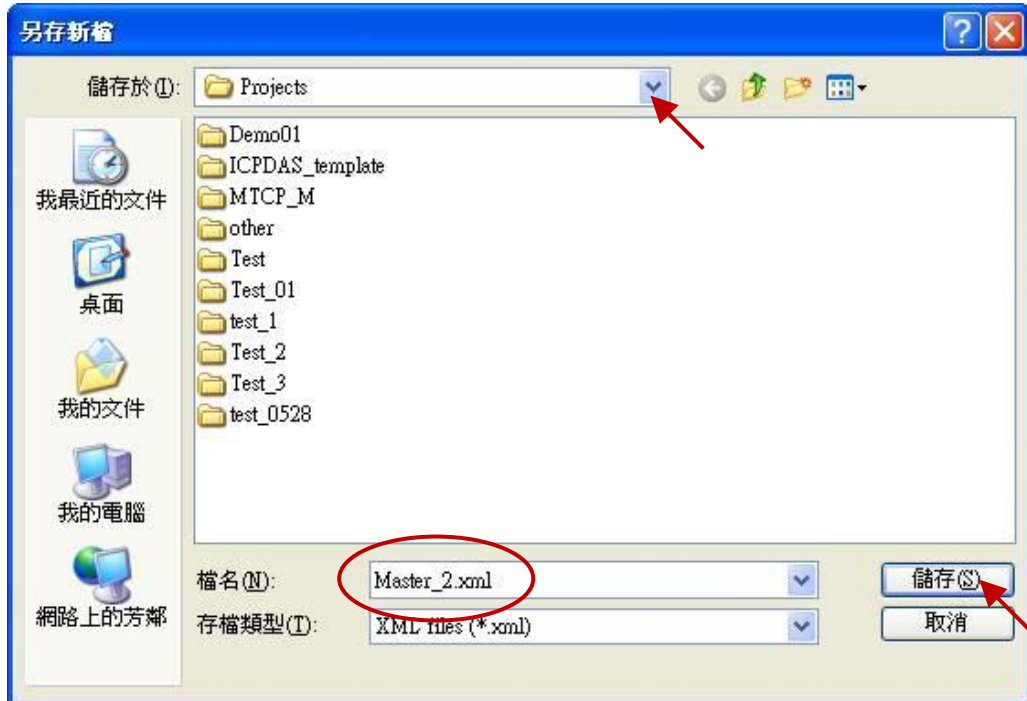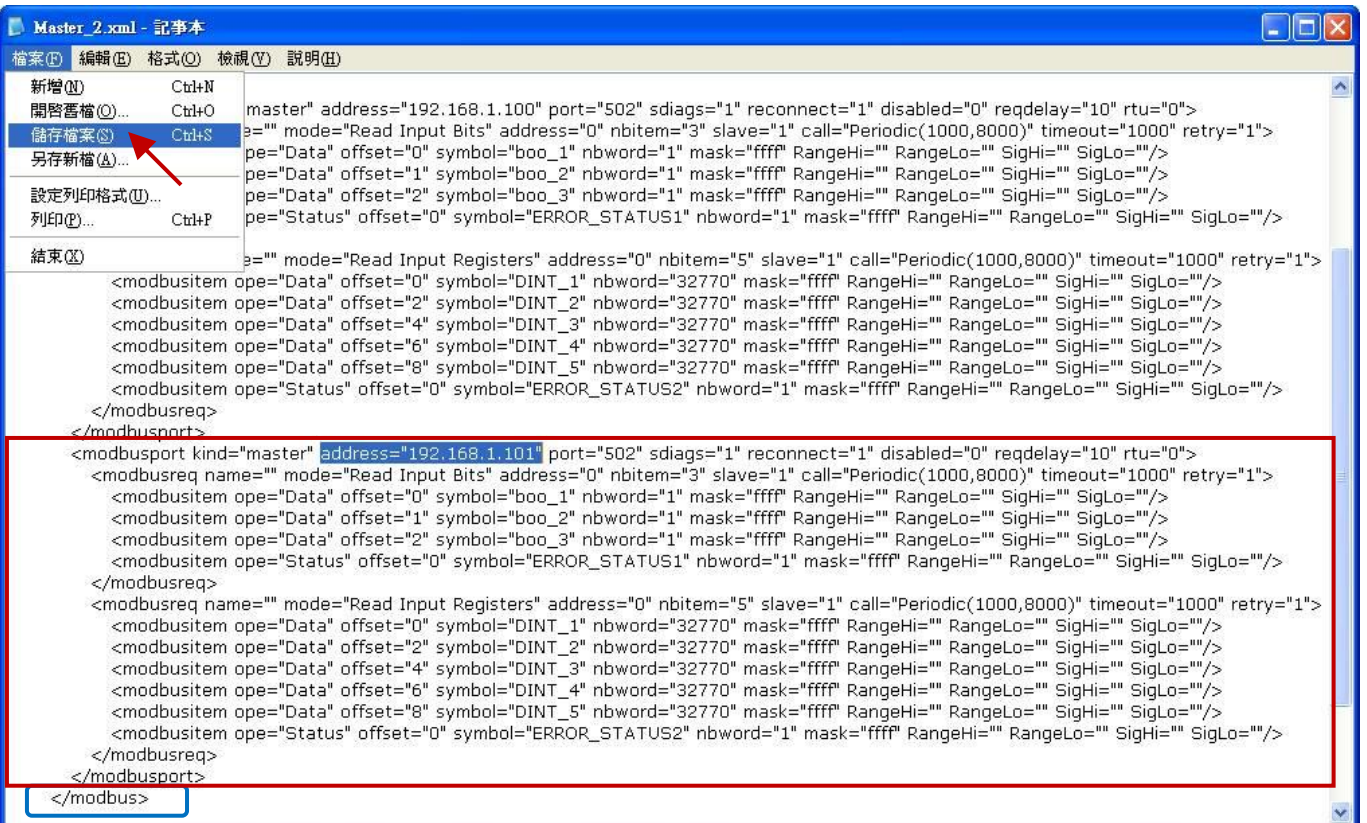
5. Using the Notepad software to open the file ".xml" that exported in the step 4, and then copy the content between the <modbus> and </modbus>.
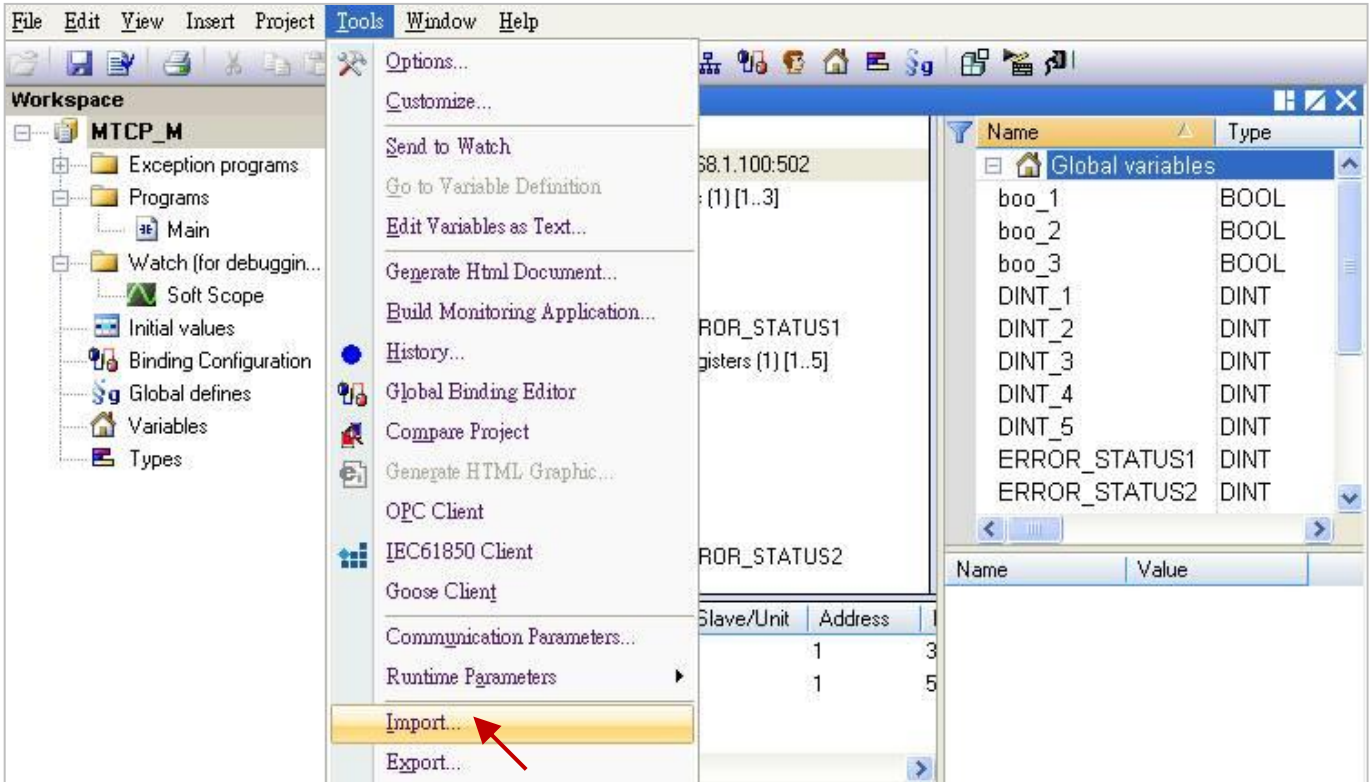

6. Paste the copied content above the </modbus>, and change the address to the second IP address of the Modbus Slave device (e.g., "192.168.1.101"), then save and close the file.

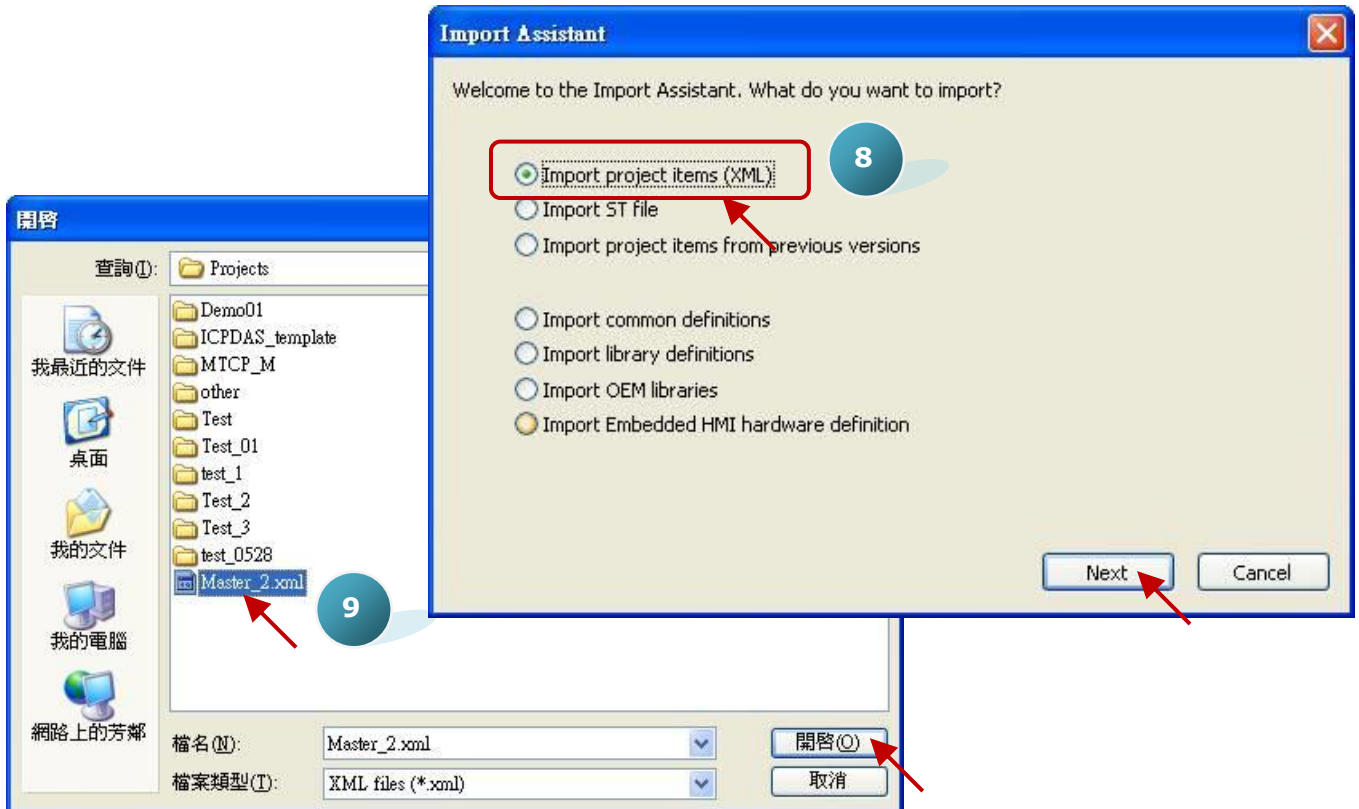7. Click the Win-GRAF menu bar "Tools" > "Import".

8. In the "Import Assistant" window, click "Import project items (XNL)" and "Next".
9. Select the file you want to import (e.g., "Master_2.xml") and click "Open" button.

10. Click "Finish" to finish the import action.

11. In the "IO Drivers" window, there has added a new "Open MODBUS" setting item that includes two "Modbus Master Request" for using to read the DI and AI. One "Error report" is used to check the IP connecting status, so please add two "DINT" variables in the Variable area (e.g., "ERROR_STATUS11", "ERROR_STATUS21") and double click the "Error report" to assign variables.