How to Disable/Enable the Modbus RTU/ASCII (or TCP/UDP) Master Port in the Program?

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The user can refer the FAQ-009 and FAQ-011 to know how to set the Win-GRAF PAC as the Modbus RTU/ASCII (or TCP/UDP) Master.

1.1. To Disable/Enable the Modbus RTU/ASCII Master Port

Modbus RTU/ASCII Master ports that enabled in the Win-GRAF "Fieldbus Configuration" - "IO Drivers" setting window, will automatically work after the PAC is powered on. If the user wants to disable one of the Modbus Master ports, use the **"MBRTU_M_disable"** function (see below).

```
(* Declare To_disable as BOOL *)
If    To_disable    then
   To_disable := FALSE ;
   MBRTU_M_disable (3) ;
End_if;
```

In the above code, if you set "To_disable" as "TRUE", it will disable the Modbus RTU/ASCII Master port - COM3. Moreover, you can enable it again by using the **"MBRTU_M_enable"** function (see below).

```
(* Declare    To_enable as BOOL
   Declare Status_com3 as BOOL *)
If    To_enable    then
   To_enable := FALSE ;
   MBRTU_M_enable (3) ;
End_if;
Status_com3 := MBRTU_M_status (3) ;
```

The **"MBRTU_M_status"** function is used to get the status of the Modbus RTU/ASCII Master port, for example, enabled (True) or disabled (False).

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1.2. To Disable/Enable the Modbus TCP/UDP Master Port

The Modbus TCP/UDP Master ports that are enabled in the Win-GRAF "Fieldbus Configuration" - "IO Drivers" setting window, will automatically work after the PAC is powered on. If the user wants to disable one of the Modbus TCP Master ports, use the **"MBTCP_M_disable"** function (and use the **"MBUDP_M_disable"** function for UDP), see below:

```
(* Declare To_disable as BOOL *)
If    To_disable    then
   To_disable := FALSE ;
   MBTCP_M_disable ( '192.168.71.9' , 502 ) ;
End_if;
```

In the above code, if you set "To_disable" as "TRUE", it will disable the Modbus TCP Master port which connects to the slave device with the IP address "192.168.71.9" (TCP Port_No = 502). Moreover, you can enable it again by using the **"MBTCP_M_enable"** function (using the **"MBUDP_M_enable"** function for UDP), see below:

```
(* Declare    To_enable as BOOL
   Status_tcp as BOOL *)
If    To_enable    then
   To_enable := FALSE ;
   MBTCP_M_enable ( '192.168.71.9' , 502 ) ;
End_if;
Status_tcp := MBTCP_M_status ( '192.168.71.9' , 502 ) ;
```

The **"MBTCP_M_status"** function (and **"MBUDP_M_status"** is for UDP) listed above is used to get the status of the Modbus TCP Master port, for example, enabled (True) or disabled (False).

For easy maintenance, the user can declare a STRING variable (set its length as "20"). For example, declare one "IP_addr2" variable and set its initial value as "192.168.71.9“. Then you can use it as the following code.

```
If   To_disable   then
   To_disable := FALSE ;
   MBTCP_M_disable ( IP_addr2 , 502 ) ;
End_if;
Status_tcp2 := MBTCP_M_status ( IP_addr2 , 502 ) ;
```


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