

## FAQ-025: How to detect controller Fault ?

I-7188EG : ver. 2.05 or later      I-7188XG : ver. 2.04 or later  
I-8xx7 : ver. 3.07 or later      W-8x37 : ver. 3.17 or later

There is two type of controller fault. One is "Global" fault. The other is "Local" fault. When Global fault happens, the ISaGRAF project will stop running. Waiting the new modified project to be download. When Local fault happens, the ISaGRAF project still runs.

HMI / PC can request the controller fault state by using Modbus protocol.

Word address of 9999 is the controller fault state. 0: Ok , 1: Controller fault.

Word address of 9998 is the controller fault type.

101 : **Global fault**

**(other value is Local fault)**

102: S\_R\_R error, invalid REAL value

103: R\_MB\_REL error, invalid REAL value

104: INT\_REAL error, invalid REAL value

105: RETAIN\_F error, invalid REAL value

106: RETAIN\_X error, invalid REAL value

107: Real value divided by 0

108: Integer value divided by 0

109: F\_READ\_F error, invalid REAL value (For Wincon-8x37/8x36 only)

110: I-87K IO board in slot 0 to 7 not found.

When Local fault happens, the project is still running, the ISaGRAF project can use R\_MB\_ADR( 1, 9999) to get controller\_state and R\_MB\_ADR(1, 9998) to get fault\_type. To clear the value in Network address 9999 & 9998, please use W\_MB\_ADR(1, 9999, 0) and W\_MB\_ADR(1, 9998, 0)

Example:

(\* When controller "Local Fault" happens, the ISaGRAF program can detect it and then program can do the right action \*)

(\* is\_fault & fault\_type are declared as internal integer \*)

(\* tmp is declared as internal boolean \*)

(\* PC / HMI can request controller fault state & type by Modbus protocol at No.=9999 & 9998 \*)

(\* to get controller state \*)

is\_fault := R\_MB\_ADR(1,9999); (\* 0: Ok , 1: controller fault happens \*)

(\* To get controller fault type

101 : Global fault : project stop running, only HMI/PC can request it by Modbus No. 9999 & 9998

--- other value is Local fault ---

102: S\_R\_R error, invalid REAL value

103: R\_MB\_REL error, invalid REAL value

104: INT\_REAL error, invalid REAL value

105: RETAIN\_F error, invalid REAL value

106: RETAIN\_X error, invalid REAL value

107: Real divided by 0

108: Integer divided by 0

109: F\_READ\_F error, invalid REAL value (For Wincon-8x37/8x36 only)

110: I-87K IO board in slot 0 to 7 not found.

\*)

fault\_type := R\_MB\_ADR(1,9998);

if is\_fault=1 then

(\* Do action here when "Local Fault" happens \*)

(\* ... \*)

(\* **Only for Wincon-8x37**: Stop program running & reset all output in slot 0 to 7 \*)

(\* tmp := Stop\_APL( ); \*)

(\* To clear the value in Network address 9999 & 9998 when Local fault happens \*)

tmp := W\_MB\_ADR(1, 9999, 0);

tmp := W\_MB\_ADR(1, 9998, 0);

end\_if;