Chapter 7. Online

To connect GMWIN to PLC, you must setup a connection option.
(Refer to ' Chapter1.1.2 How to Connect GMWIN to PLC ' for detail description).
After setting the option for connection, you must set a PLC key on REM(Remote Stop) mode to connect with GMWIN.
If you connect GMWIN to PLC in proper order, you can do the following functions.
(reading from PLC, writing to PLC, monitoring, debugging, change a PLC mode, erase PLC data area, set the use of link parameter, PLC information, I/O information, Forced I/O setup, Enable Forced I/O, Set a PLC password, etc.)

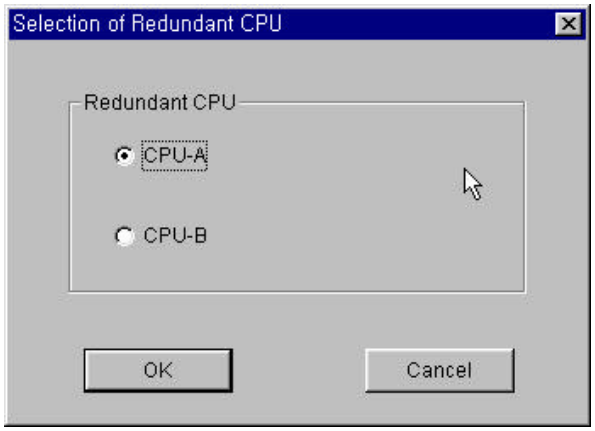
7.1. Connect

7.1.1. Connect + Write + Run + Monitor On

It is a macro command that executes a program at one time. To execute the communication with PLC automatically, select this menu.
This function can download the project created in GMWIN to PLC, make PLC Run and monitor the project at one time.
Prior to perform this menu, confirm the switch in CPU module of the PLC is at REM (Remote Stop) mode.

7.1.2. Connect

◆ Select Online-Connection the pull-down menu.
In case of redundancy, select the CPU to connect.



7.2. Disconnect

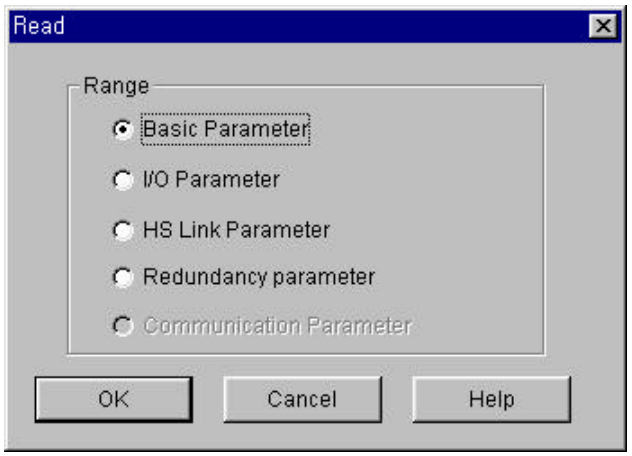
You can disconnect GMWIN with PLC.

◆ Select **Online-Disconnect** in the pull-down menu.

7.3. Read from PLC

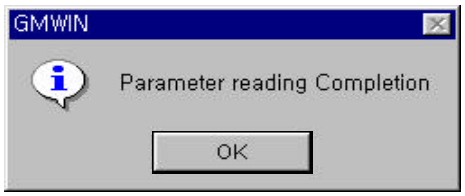
You can read PLC parameters in GMWIN after connecting with PLC.

◆ Select **Online- Read** in menu.



- Basic Parameter : Read only a basic parameter from PLC.
- I/O Parameter : Read only I/O parameter from PLC.
- HS Link Parameter : Read only an express link parameter from PLC.
- Redundancy Parameter : Read only a Redundancy Parameter. (In only case of redundancy, it is activated)
- Communication Parameter : Read only a Communication Parameter. (In only case of Communication, it is activated)

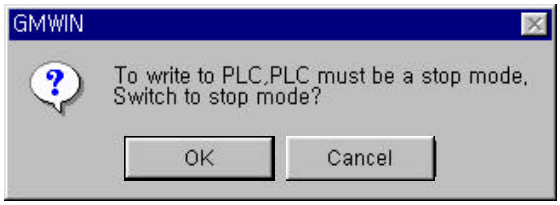
◆ In **Read** dialog box, select the memory area of parameter to read and click **OK** button.



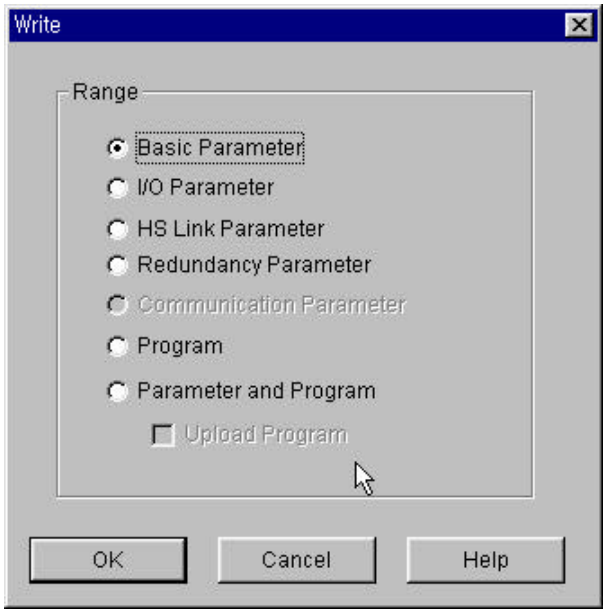
7.4. Write to PLC

This function is used for writing a parameter and program of GMWIN to PLC after the connection with PLC. In GM1 and Resource is more than two, when you write parameter and program to PLC, select the appropriate resource.

◆ Select **Online-Write** in the pull-down menu.
◆ If the state of PLC is **Run**, then following dialog box will appear.



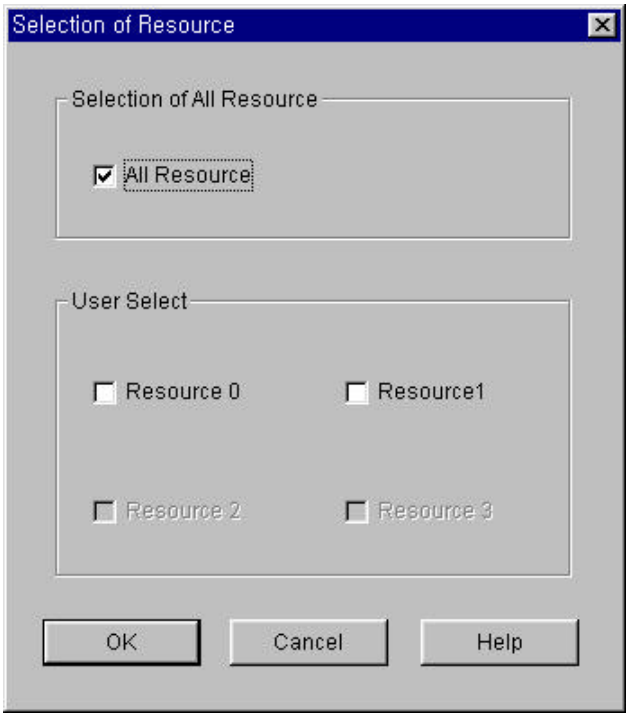
◆ Click **YES** button.



◆ Select the memory area to write to PLC and click **OK** button.

- Basic Parameter : Write only a basic parameter from PLC.
- I/O Parameter : Write only I/O parameter from PLC.
- HS Link Parameter : Write only an express link parameter from PLC.
- Communication Parameter : Write only a Communication Parameter. (In only case of Communication, it is activated)
- Redundancy Parameter : Write only a redundancy parameter from PLC.
- Program : Write only a program from PLC.
- Parameter and Program : Write a parameter and program from PLC.
- Upload Program : Write a program from PLC.

◆ When you use a **GM1 Multi CPU**, select a resource in **Selection of Resource** dialog box and click **OK** button.



7.5. Change PLC Mode

To change PLC mode.

Run Mode

- Select **Online-Mode Change-Run** in menu.

Stop Mode

- Select **Online-Mode Change-Stop** in menu.

Pause Mode

- Select **Online-Mode Change** - **Pause** in menu.

Debug Mode

- Select **Online-Mode Change - Debug** in menu.

Master Change

- Select **Online-Mode Change - Master Change** in menu.
  (When you use GM1 Redundancy PLC, this function changes a master CPU)

7.6. Clean PLC Data

- Select **Online-Data Clear** in menu.

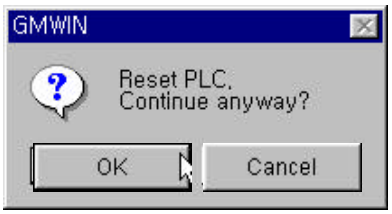
- Click **Yes** button.

7.7. PLC Reset

7.7.1. Reset

- Select **Online - Reset** in menu.

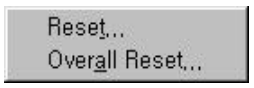
- Select **Reset** in menu.

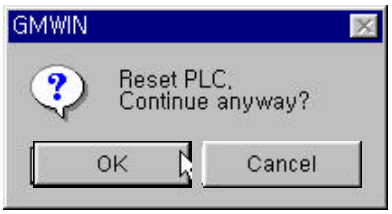


- Click **Yes** button.

7.7.2. Over All Reset

- Select **Online - Reset** in menu
- Select **Overall Reset** in menu.



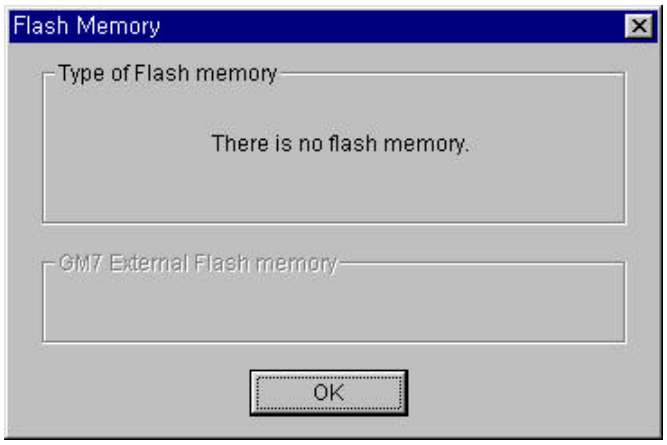


- Click **Yes** button.

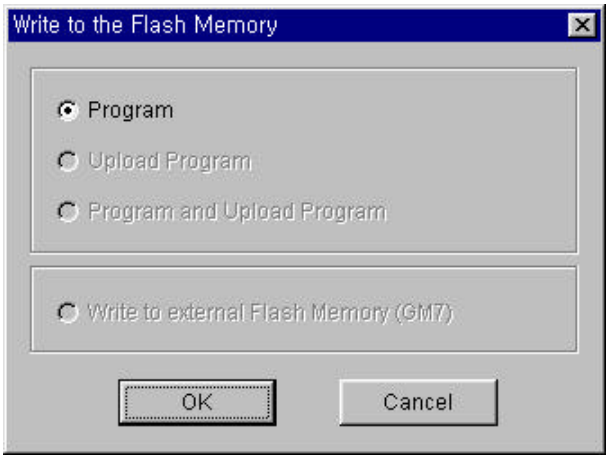
7.8. Flash Memory

This function is used for confirming a flash memory type mounted on CPU module or transferring a program in data RAM of PLC to flash memory.

- Select **Online-Flash Memory-Flash Memory Type** in menu.



- Select **Online-Flash Memory - Flash Memory Write** in menu



Select item(s) to be written into the flash memory, and press 'OK' button.

The GM6 CPU series has built-in flash memory.
The GM7 series has built-in flash memory, also an external memory module is avaiable.
When write into the external memory module, select 'Write to external Flash memory (GM7)'.

◆ Click **Yes** button.

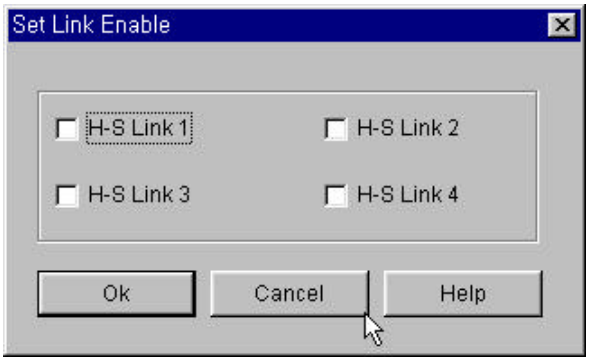
In the state that flash memory is mounted on CPU module, if you execute **Online-Write** menu, the following dialog box appears when GMWIN finishes writing a program.

◆ Click **Yes** button and you can write the current program to memory module directly.

7.9. Setup Link Enable

This allows you to designate the block for the link parameter use.

◆ Select **Online-Setup Link Enable** in menu.



◆ Click **OK** button after selecting the HS Link

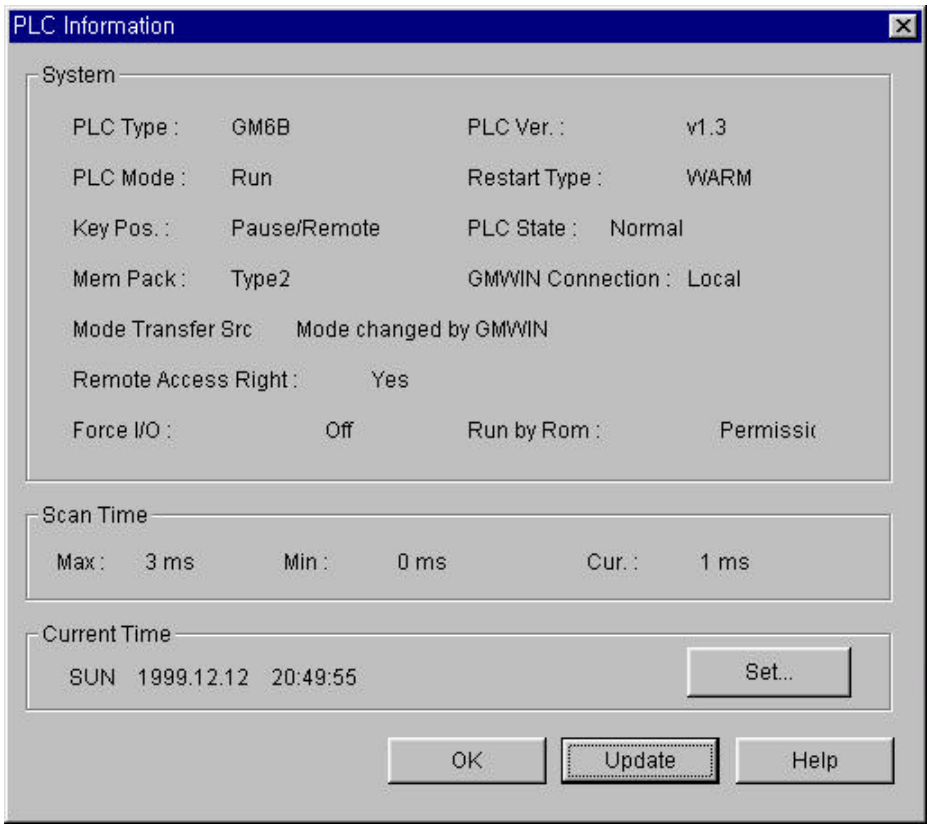
7.10. PLC Information

It is the function that indicates various information for PLC system such as 'System info', 'Error/Warning info', 'AC Fail history', 'Error history', 'Mode change history', 'I/O module fault info', and 'Base unit info'.

7.10.1. System Information

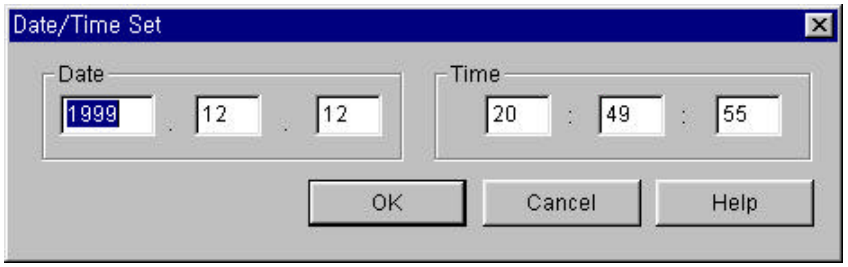
It is the function that indicates the constructive state of PLC system.
You can see system information, scan time, current time and error status.
You can also setup current time.

◆ Select **Online-PLC Information-System Info..** in the pull-down menu.



If you want to setup or edit current time,

◆ Select **Set…** button of current time in **PLC Information** dialog box.



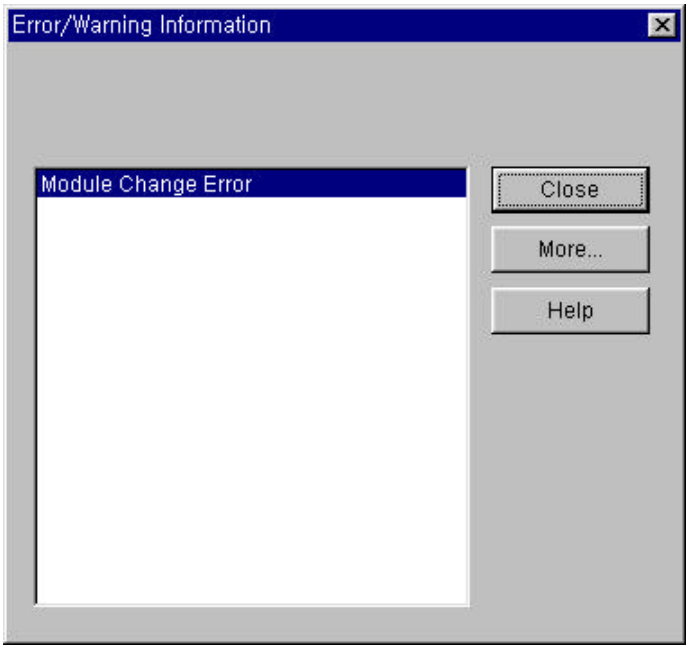
◆ Setup Date and Time in **Date-Time Set** dialog box.

7.10.2. Error/Warning Information

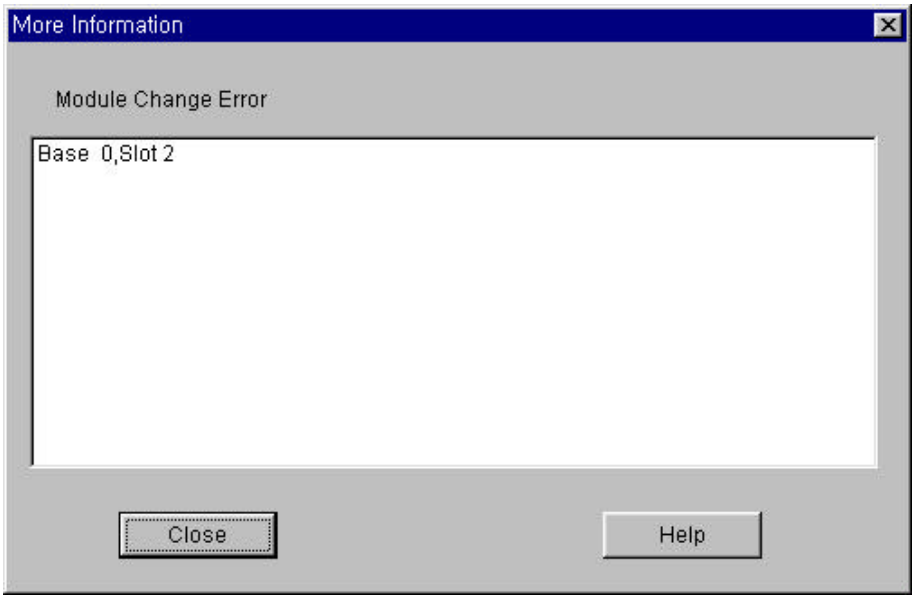
When the following error occurs, you can confirm the detail information about an error.

① In case that I/O parameters are different from practically mounted modules.
② In case that module configurations are changed in Run mode.
③ In case that the fuse of module is blown.
④ In case that GMWIN cannot normally read or write program or parameter in I/O module.
⑤ In case that normal interface is impossible in special or communication module.
⑥ In case that the position of error is incorrect or there is a trouble in peripheral device.
⑦ In case that there is a collision between tasks.

◆ Select **Online-PLC Information-Error/warning Information**.



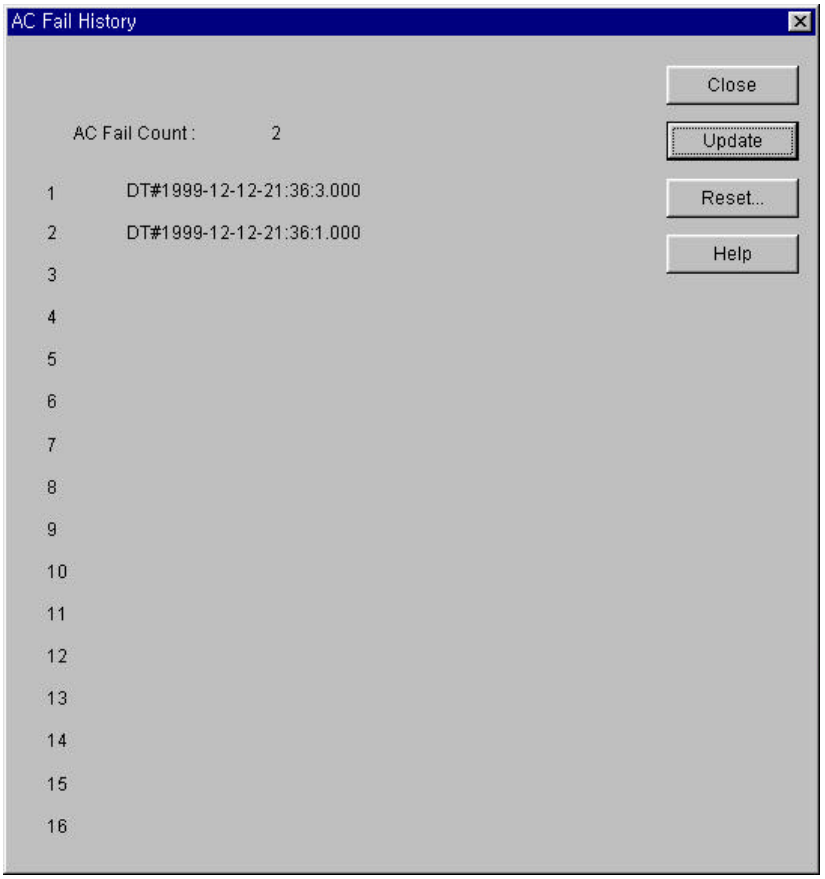
◆ Click **More** button.



7.10.3. AC Fail History

AC Fail History shows the history of AC Fail that has occurred in PLC.

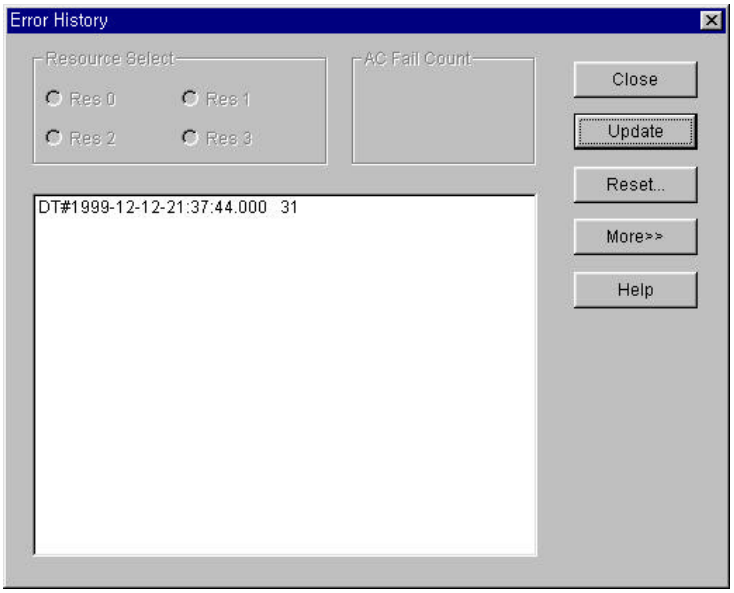
◆ Select **Online-PLC Information-AC History** in the pull down menu.



7.10.4. Error History

Error history shows the history of errors that has occurred in PLC.

◆ Select **Online-PLC Information-Error History** in the pull-down menu.

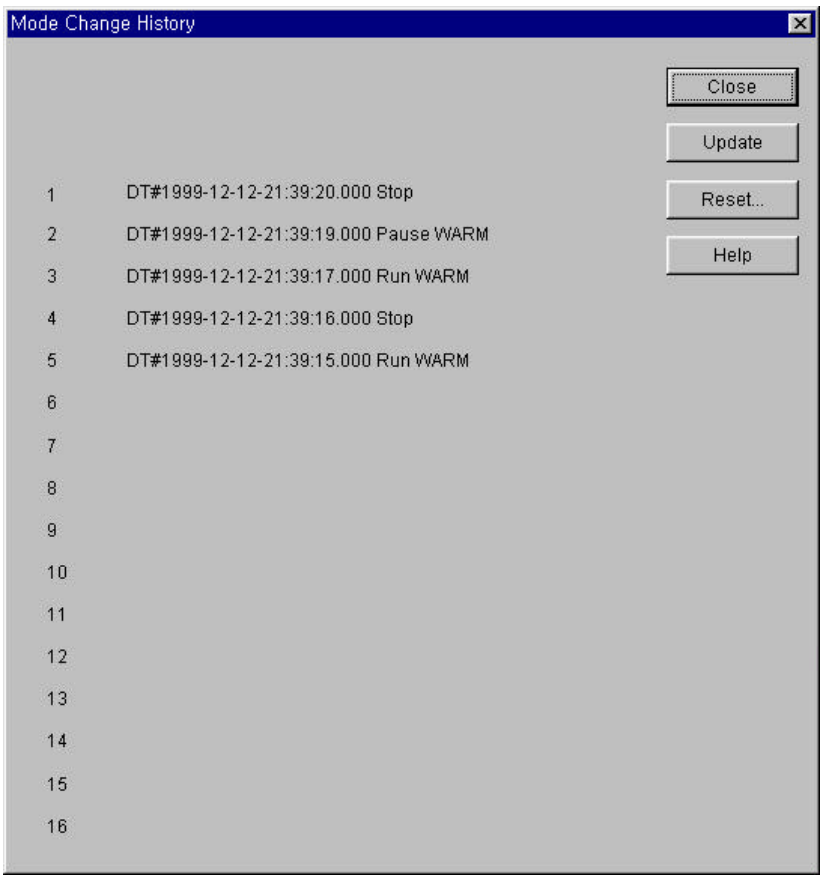


If you want to see detail information about the history of occurred error,
select the item to see the detail information in list box and click **Detail** button.

7.10.5. Mode Change History

This shows the history that has changed PLC mode.

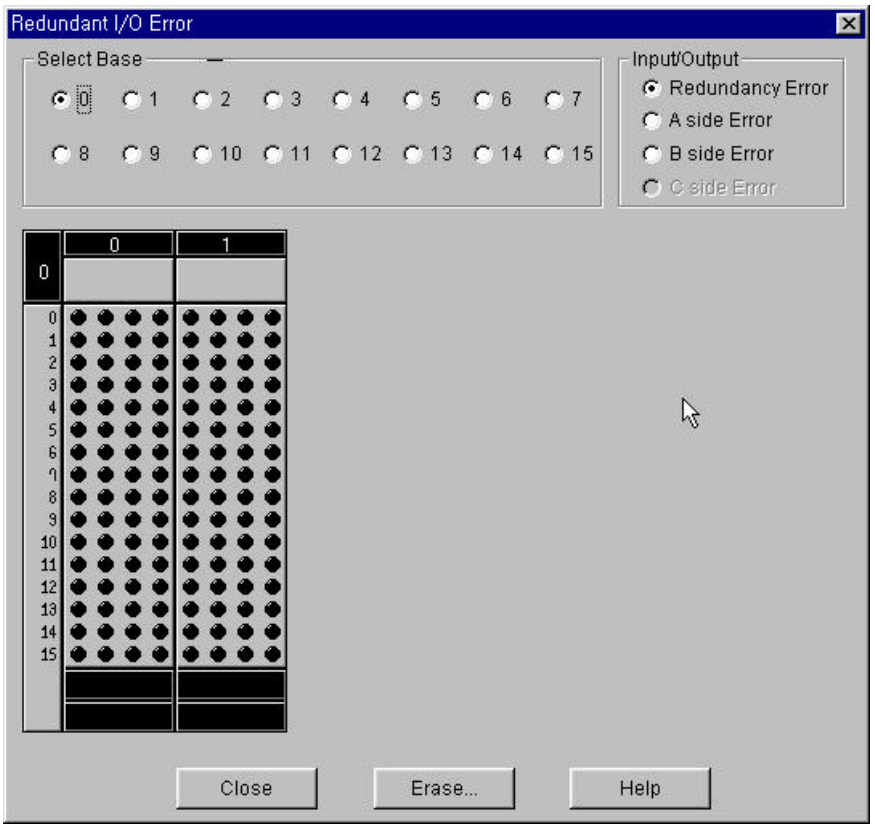
◆ Select **Online-PLC Information-Mode Change History** in the pull-down menu.



7.10.6. I/O Module Fault Information

This shows information about the fault of input/output contacts in redundant system.

◆ Select **Online-PLC Information-I/O Module Fault Info** in the pull-down menu.



◆ If you want to erase the detail information about error, click **Erase...** button.

When PLC is connected as a master, you can erase a redundancy error and C side error
And when PLC is connected to each CPU, you can erase A side terror and B side error.

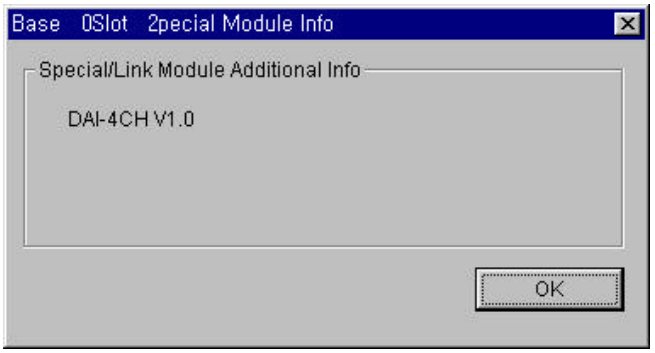
7.11. I/O Information

This shows the configuration of I/O modules in PLC system.

◆ Select **Online-I/O information** in the pull-down menu.

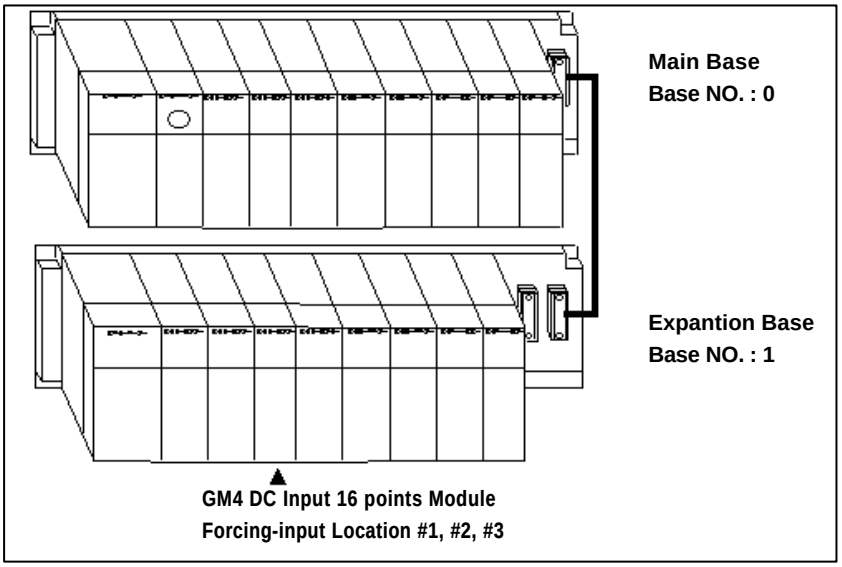
◆ Select the base number in **Base Select** list box.

◆ If you select the slot number in **I/O Configuration** dialog box, you can read the information of special module.

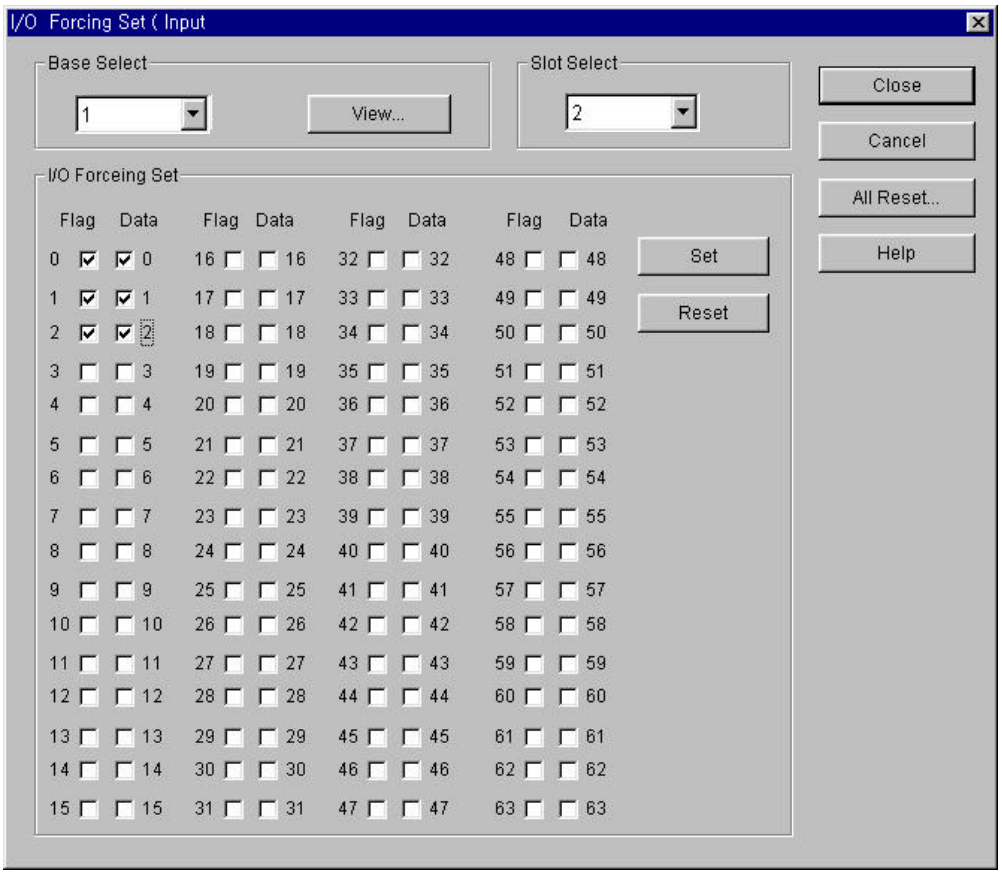


7.12. Forced I/O Setup

This is a function that sets up forced input/output of refresh area in PLC.
It is different from Forced writing of variable in program.
In the following PLC system, how to setup Forced Input of the part marked with ( ) is as below.

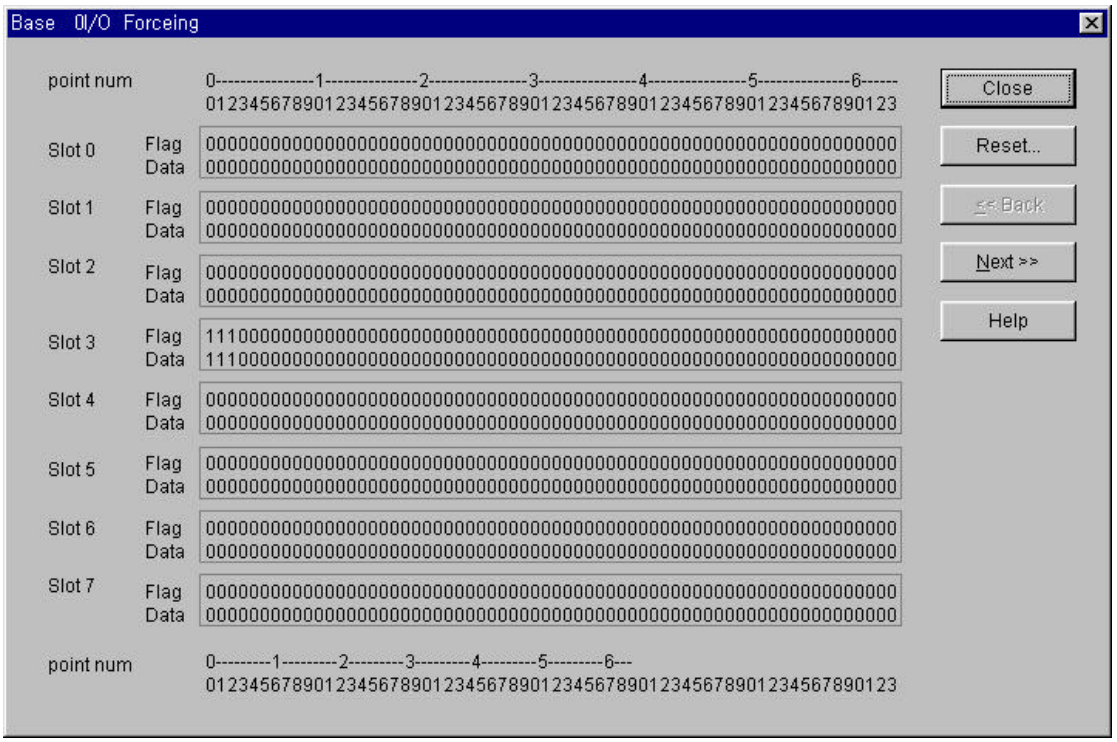


◆ Select **Online-I/O Forcing-Input** in the pull-down menu.



◆ Input Base Select1, Slot Select2 in dialog box.
◆ Setup the forced data and flag(0 2) in I/O forcing set of dialog box.
◆ Click **Close** button.

◆ If you click View button in dialog box, you can see the content of forced I/O setup.



Forced Output setup is same as the Forced input setup.

◆ Select **Online-I/O Forcing-Output** in the pull-down menu.
◆ Select a base and slot in dialog box.
◆ Setup the forced data and flag in I/O Forcing set of dialog box.
◆ Click **Close** button.

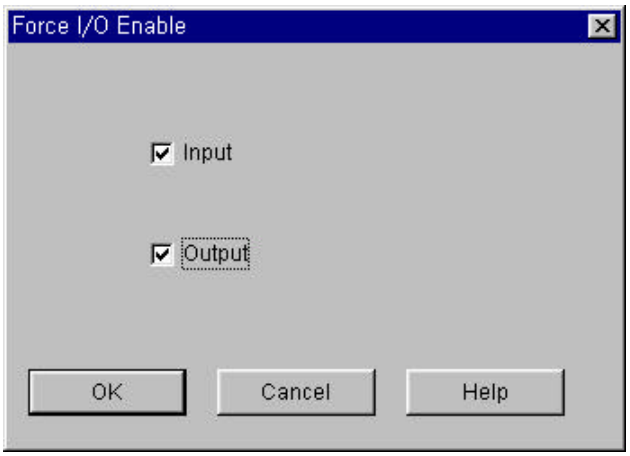
Note

To input/ output the data that you setup, you should setup Enable I/O Forcing in section 7.13

7.13. Enable I/O Forcing

It allows you to enable the execution of Forced input/output.

◆ Select **Online-I/O Forcing-Output** in the pull-down menu.

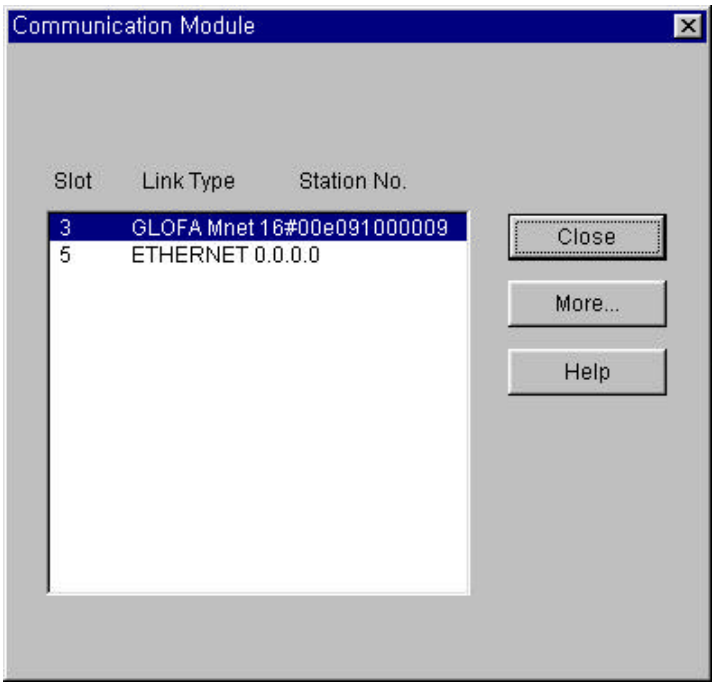


◆ Select the area for Forced I/O in **Enable I/O Forcing** dialog box and click **OK** button.

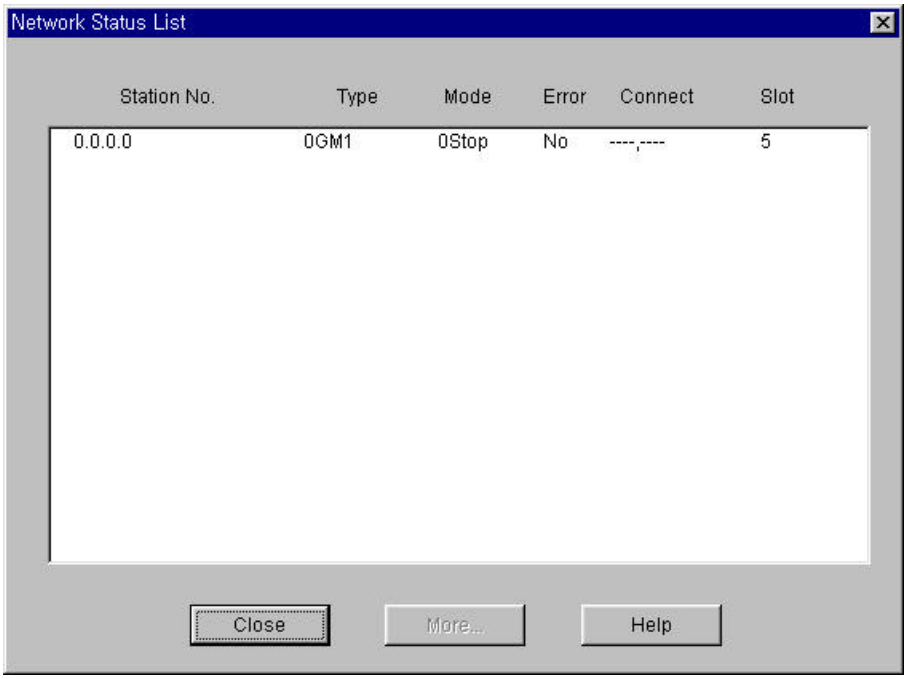
7.14. Link Information

This function shows the station number, type, PLC mode, error, and slot number of communication module mounted on PLC.

◆ Select **Online-Link Information** in the pull-down menu.

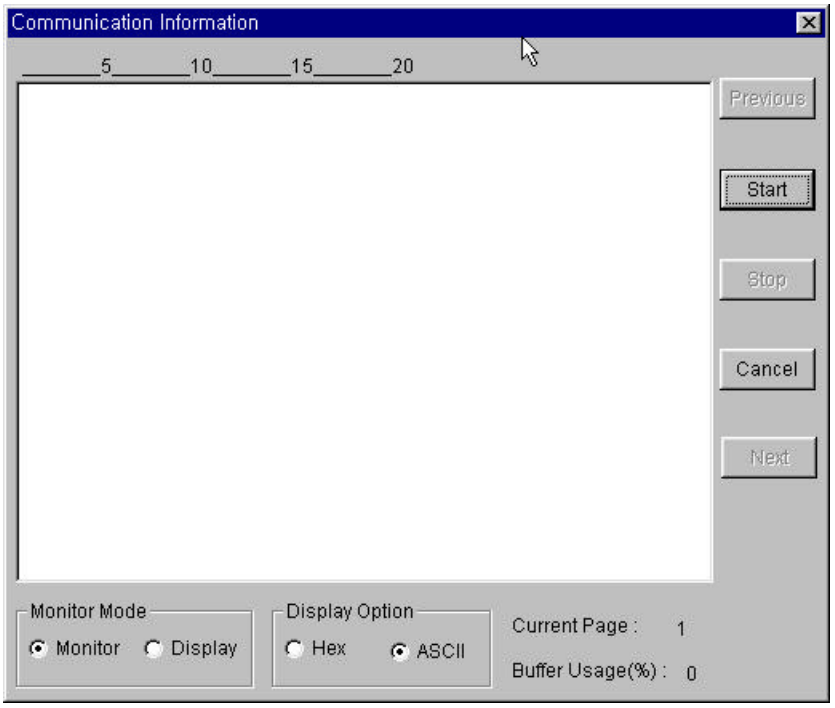


◆ Click **More…** button for the detail information in **Communication Module** dialog box.



7.15. Tx/Rx Information

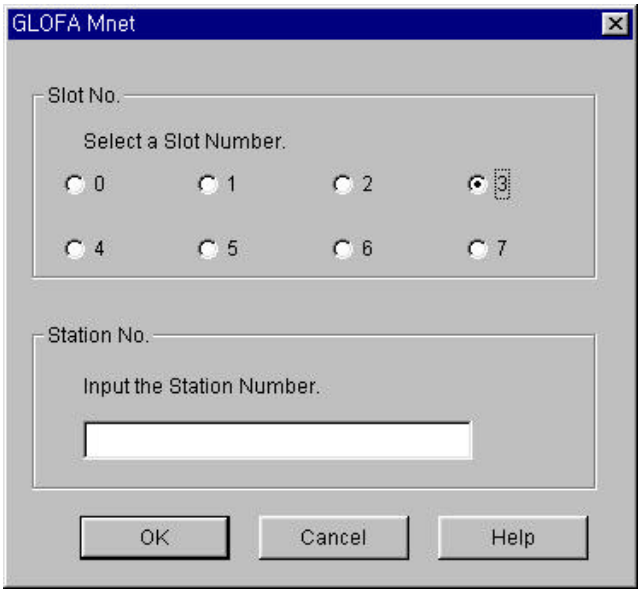
In GM7, you can monitor a receiving data with the selecting of Tx/Rx information through the C-net or C-net interface unit. (In GM1-6, you can monitor through the frame editor for C-net)



7.16. Mnet Parameter

It allows you to setup the parameter of Mnet (Mini-MAP) communication module in PLC.

◆ Select **Online-Mnet Parameter** in the pull-down menu.

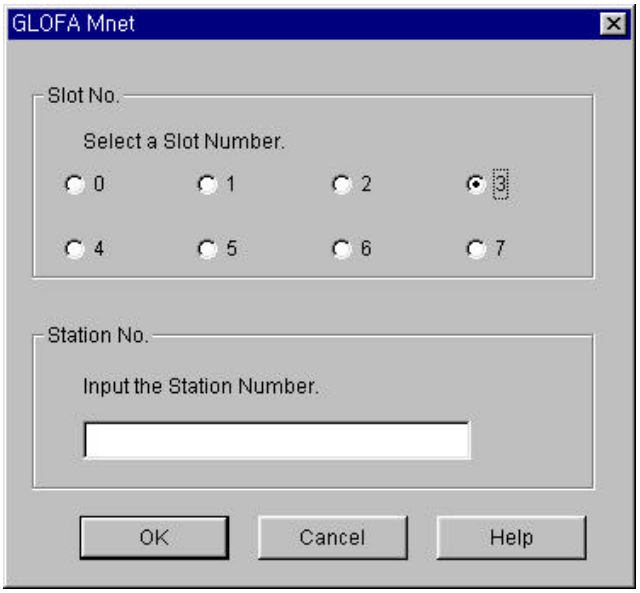


◆ Setup **Slot No.** and **Station No.** in **GLOFA Mnet** dialog box.

7.17. Mnet Information

This function indicates modern ' s status of Mnet(Mini-MAP) communication module in PLC.

◆ Select **Online- Mnet Information** in the pull-down menu.

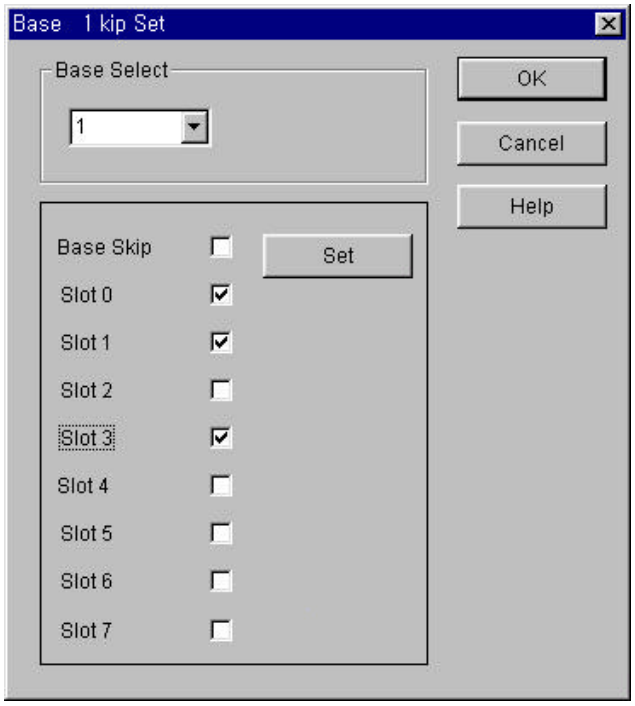


◆ Setup **Slot No.** and **Station No.** in **GLOFA Mnet** dialog box.

7.18. I/O Skip

To setup the I/O Skip,

◆ Select **Online-I/O Skip** in the pull-down menu.



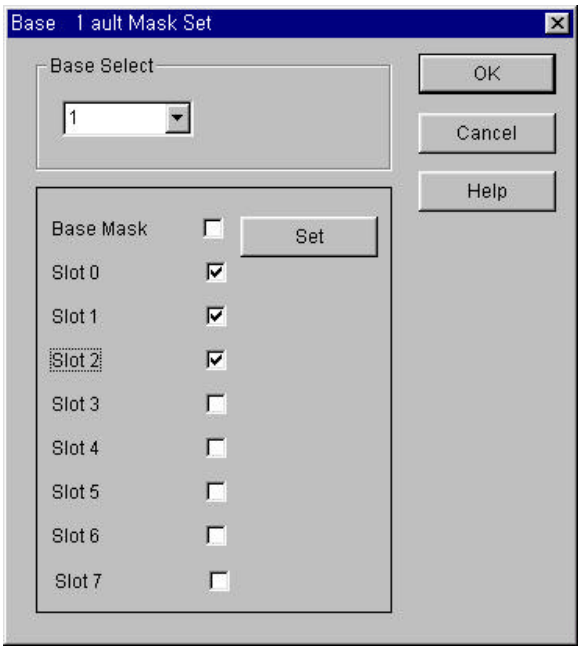
◆ Setup a base number to skip the I/O in **Base Skip Set** dialog box.

◆ Setup a slot number in **Base Skip Set** dialog box and click **OK** button.

7.19. Fault Mask

To setup Fault Mask,

- Select **Online-Fault Mask** in the pull-down.

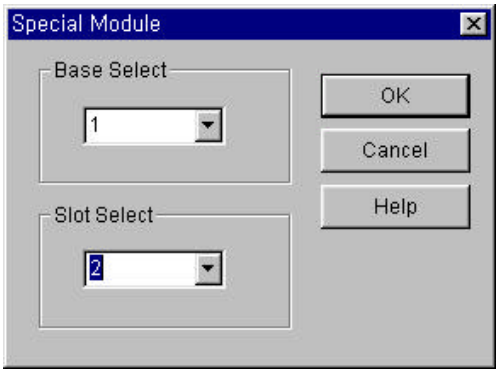


- Setup the base number to mask in **Base Fault Mask** dialog box in menu
- Setup a slot number in **Base Fault Mask** dialog box and click **OK** button.

7.20. Initializes Special Modules

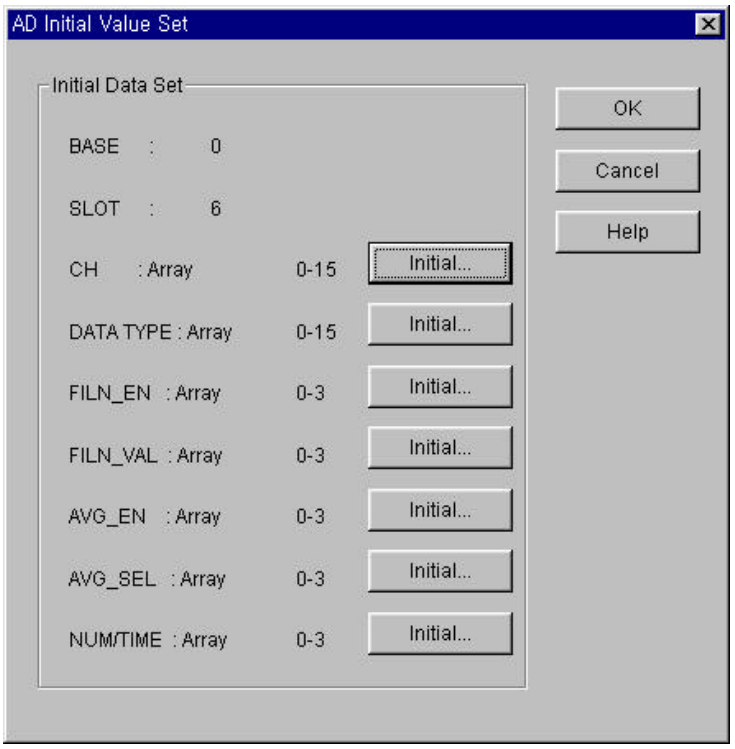
It allows you to initialize a special module in PLC.
To initialize a special module,

- Select **Online-Initializes Special Modules** in the pull-down.

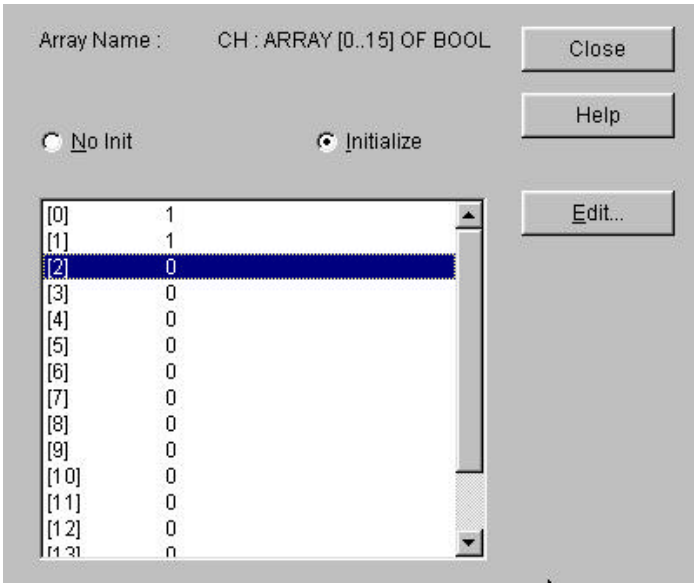


- In Special Module dialog box, select the slot number and base which has a special module to initialize.
- Click OK button.
- If you setup the wrong number, the error message box appears on the screen as below.

- After selecting the number correctly, click **OK** button.
- Select the parameter to initialize in **Initial Values Set** dialog box.



- Then **Array Initialization** dialog box appears and the designated value is outputted to the selected parameter.
- In **Array Initialization** dialog box, after selecting the item that you want to change, double-click the item or click **Edit**



button.

- Change the Value to initialize in **Array Initialization** dialog box and click **OK** button.

Note

Refer to section ' Chapter 13 Online Edit ' for details.