Chapter 1. Introduction

1.1. Characteristics of GMWIN

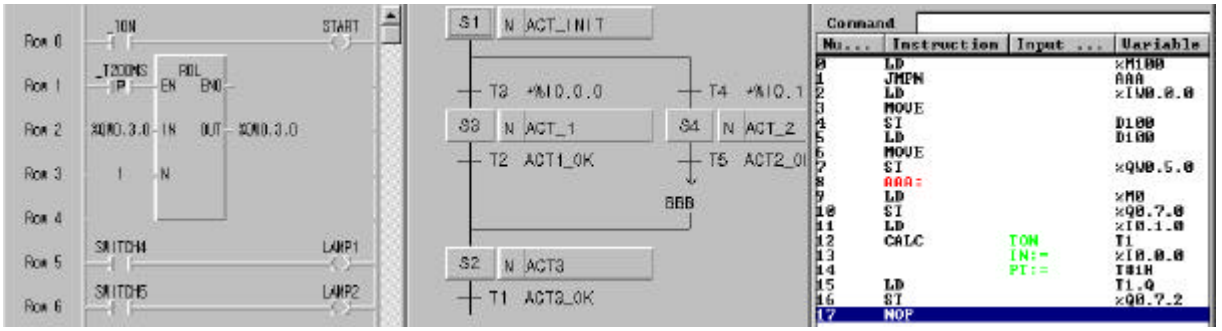
GMWIN is a programming and debugging tool for the full range of GLOFA PLC.
GMWIN software has the following features.

1) Comfortable Interface

It is possible to compile and debug several programs at the same time and maximizes user's other convenience.

2) Supporting Various Languages

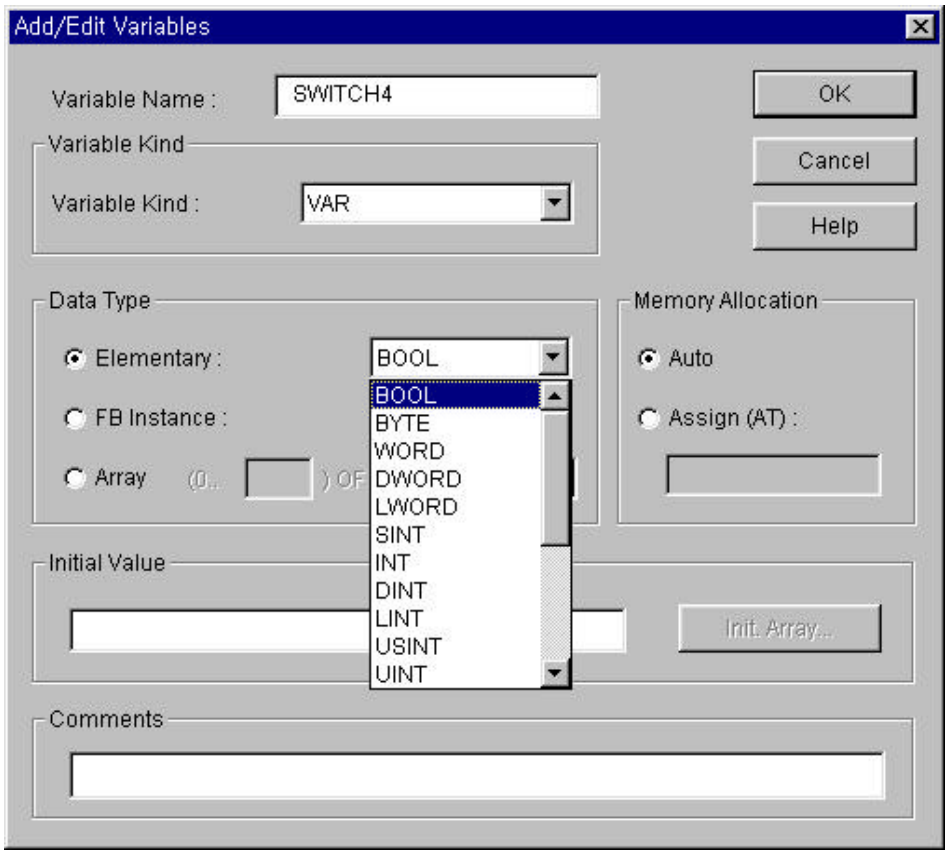
It supports various languages like LD, SFC, IL. So you can select and use applicable language to a system.



LD SFC IL

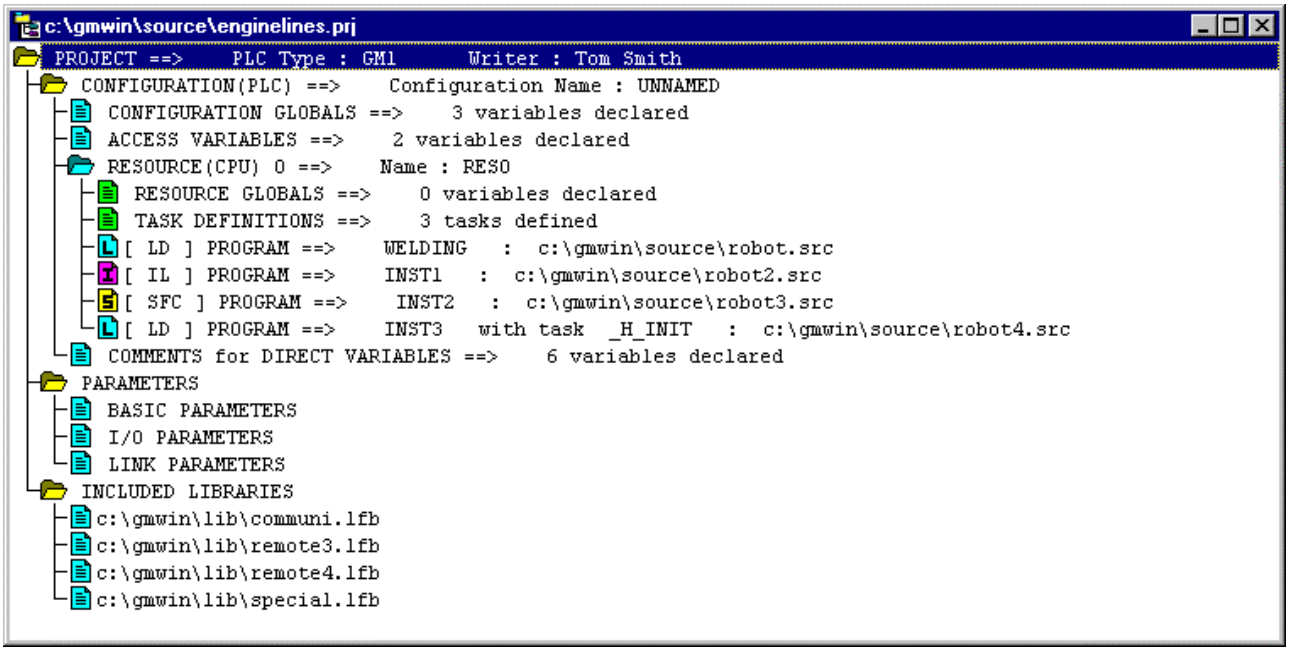
3) Using Variables by Symbol

You can create a program using symbols for easy understanding and memory address is also assigned automatically. It supports various data types. So you can create high-leveled programs.



4) PLC System using Project Unit

It is very easy to create and test a program because you can include several programs in one PLC system.



5) Connecting GMWIN to PLC by Easy Network

You can download and monitor programs not only in directly connected PLC but also in a local PLC connected by network.

6) Various PLC Information

It is available to monitor various PLC states and to use this function in the program mode.

7) User-Defined Libraries

Besides standard functions and function blocks, you can define a frequently used program as one of functions or function blocks for your convenience.

1.2. How to Connect GMWIN to PLC

In connection GMWIN to PLC, you must previously define two options – 『Method of Connection』 and 『Depth of Connection』 in Connect Option.

There are four kinds of methods of connection, using RS-232C, MODEM, Communication module (GLOFA Fnet/Mnet for PC) and Network (Ethernet), and three kinds of depth of connections such as Local, Remote 1 and remote 2.

When using Windows 3.x for operating system, the connections using Communication module and Network are not supported.

Select 『***Connect option***』 in ***Project - Option*** menu.

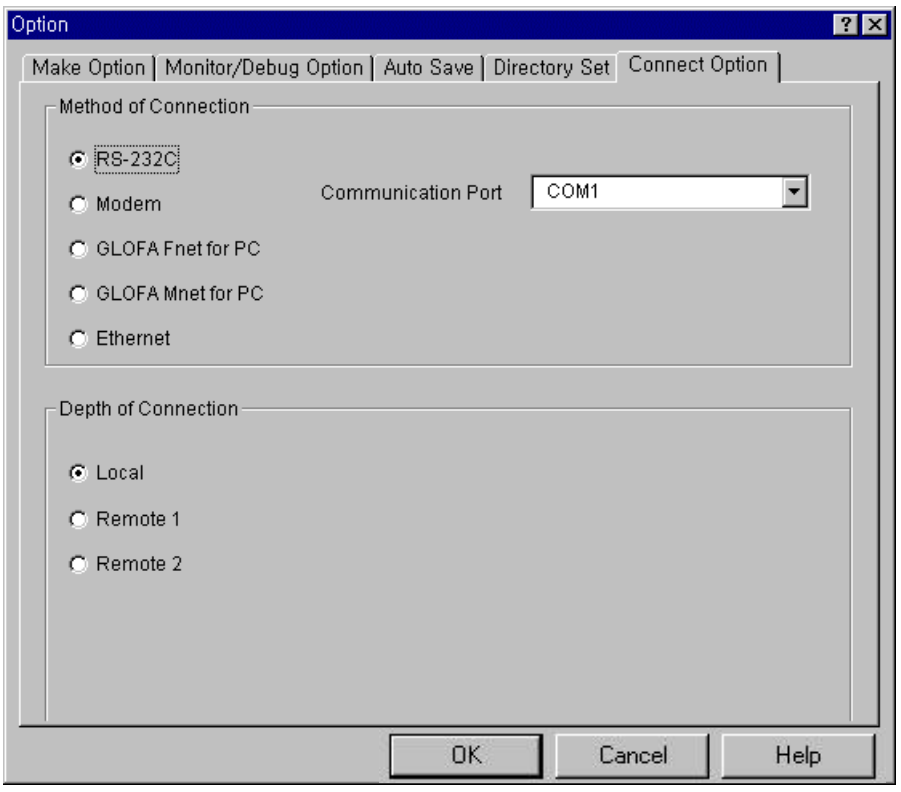
1.2.1. Method of Connection

1) Connection using RS-232C

To use RS-232C connection, connect the RS-232C cable with the serial port in PC and serial port in PLC

◆ From the Project Menu, choose ***Option***.

◆ Choose ***Connect Option*** tab in the ***Option*** dialog box.



◆ Select ***RS-232C*** in Method of Connection.

◆ Select Communication Port.

◆ Select ***Depth of Connection*** and click ***OK*** button.

Local Connection

◆ Select***Local*** in Depth of Connection and click ***OK*** button.

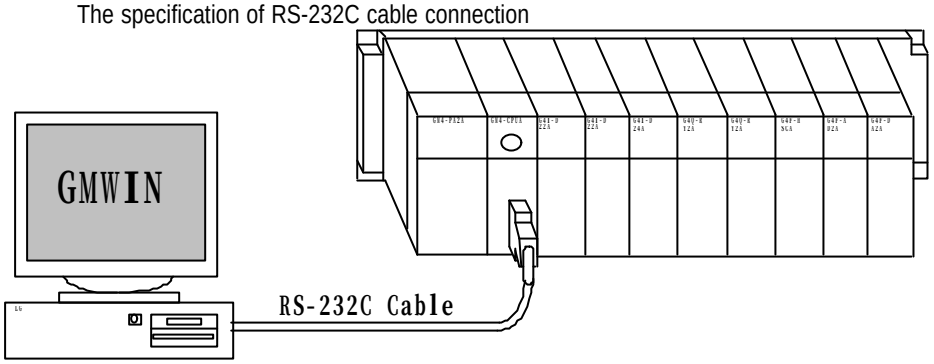
◆ Choose ***Connect*** from the Online Menu

Remote Connection (See GLOFA Fnet/Mnet user's manual for more details),

- ◆ Open Network Type List and select a network type.
- ◆ Type a station number in Station No. Box.
- ◆ Select slot number.
- ◆ Click ***OK*** button.
- ◆ Choose ***Connect*** from the Online Menu.

Note

The specification of RS-232C cable connection

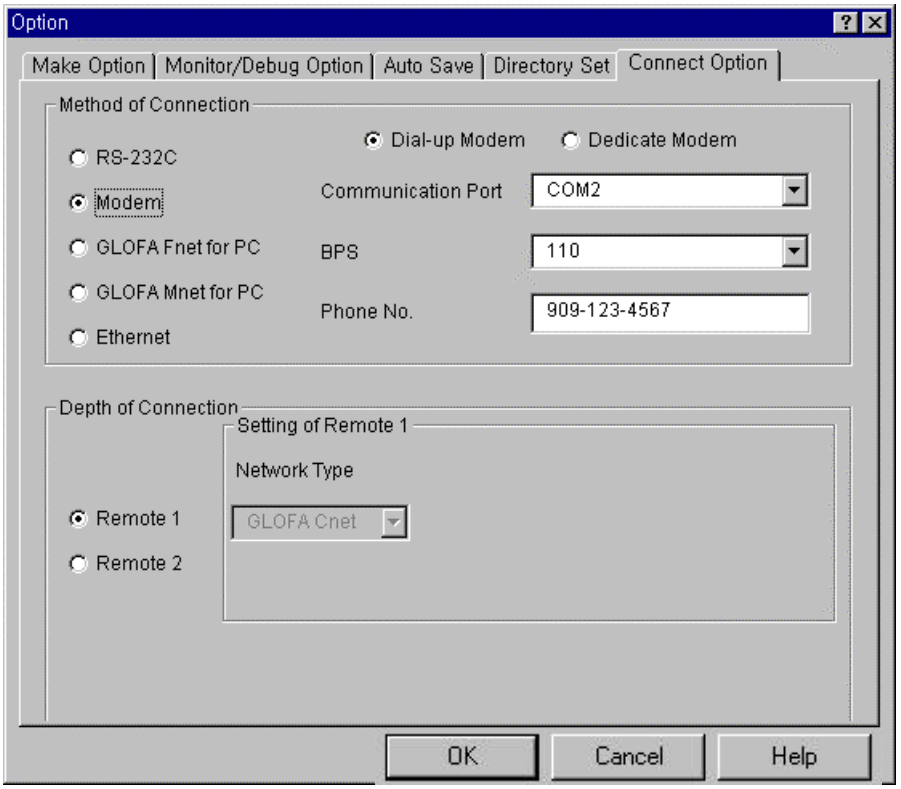


Pin No.	GMWIN(IBM PC)	GLOFA PLC	Pin No.
1	DCD/CD	DCD/CD	1
2	RXD	RXD	2
3	TXD	TXD	3
4	DTR	DTR	4
5	COM/SG	COM/SG	5
6	DSR	DSR	6
7	RTS	RTS	7
8	CTS	CTS	8
9	RI	RI	9
9 Pins			9 Pins

2) Connection using Modem

The long distance connection using modem is only available by Remote Connection.
To be connected with PLC, the computer link board(G□L – CUEA) must be mounted on the computer.

◆ From the Project Menu, choose ***Option***.
◆ Select ***Connect Option*** in ***Option***.

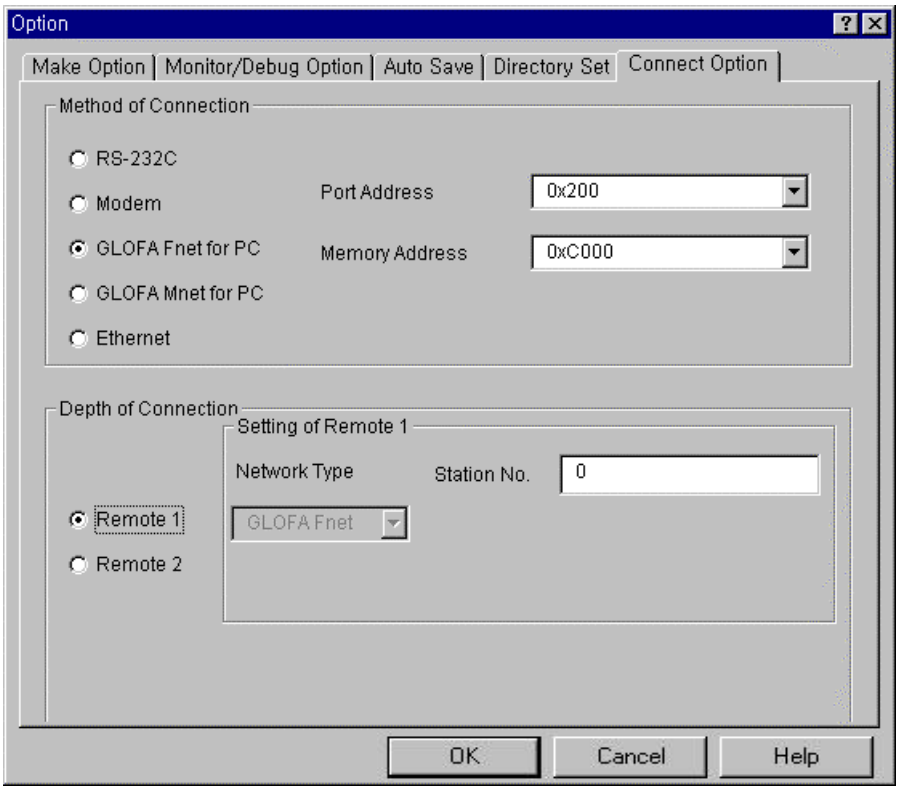


◆ Select ***Modem*** in Method of Connection.
◆ Select Dial-Up Modem or Dedicate Modem.
◆ Setup ***Communication Port(COM1 COM4), BPS and Phone No***.
◆ Click ***OK*** button.

3) Connection using Communication Module

To use Communication module connection (GLOFA Fnet for PC or GLOFA Mnet for PC), Fnet(Fieldbus) or Mnet(Mini-MAP) module for PLC and boards for PC.
After installing communication board for PC in PC, you must setup the address to be used by communication module for PC with changing config.sys file in Windows folder of PC (See GLOFA Fnet/Mnet user's manual for detail comment).
Example) device = c:\windows\emm386.exe noems x=d000-d4000

◆ From the Project Menu, choose ***Option***.
◆ Select ***Connect Option*** in ***Option***.



◆ Select ***GLOFA Fnet for PC*** or ***GLOFA Mnet for PC*** in Method of Connection.
◆ Setup ***Port Address*** and ***Memory Address***.

Remote Connection (See GLOFA Fnet/Mnet user's manual for detail comment information)

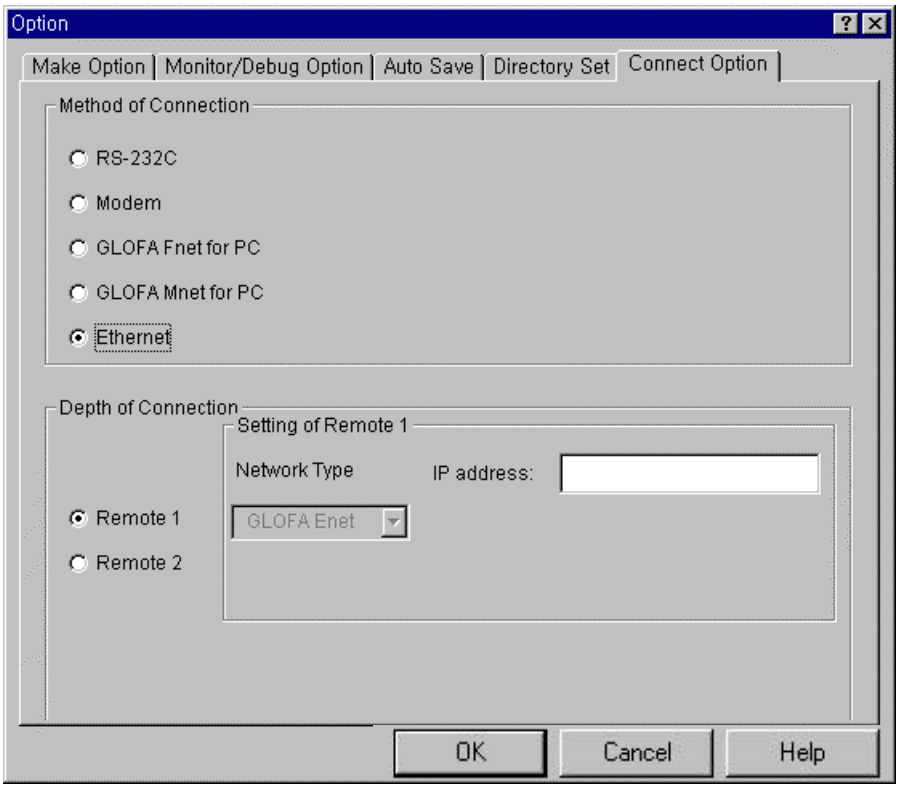
◆ Select ***Station No***.
◆ Select ***Online-Connection*** in menu and click ***OK*** button.
◆ Choose ***Connect*** from the Online Menu.

Port Address and ***Memory Address*** must be identified with the ones set in the communication board mounted on PC.

4) Connection using Network

Network connection is only available for Remote connection. To use this connection, Enet(Ethernet) module and the network system must be installed.

◆ From the Project Menu, choose ***Option***.
◆ Select ***Connect Option*** in ***Option***.



◆ Select ***Ethernet*** in Method of Connection.

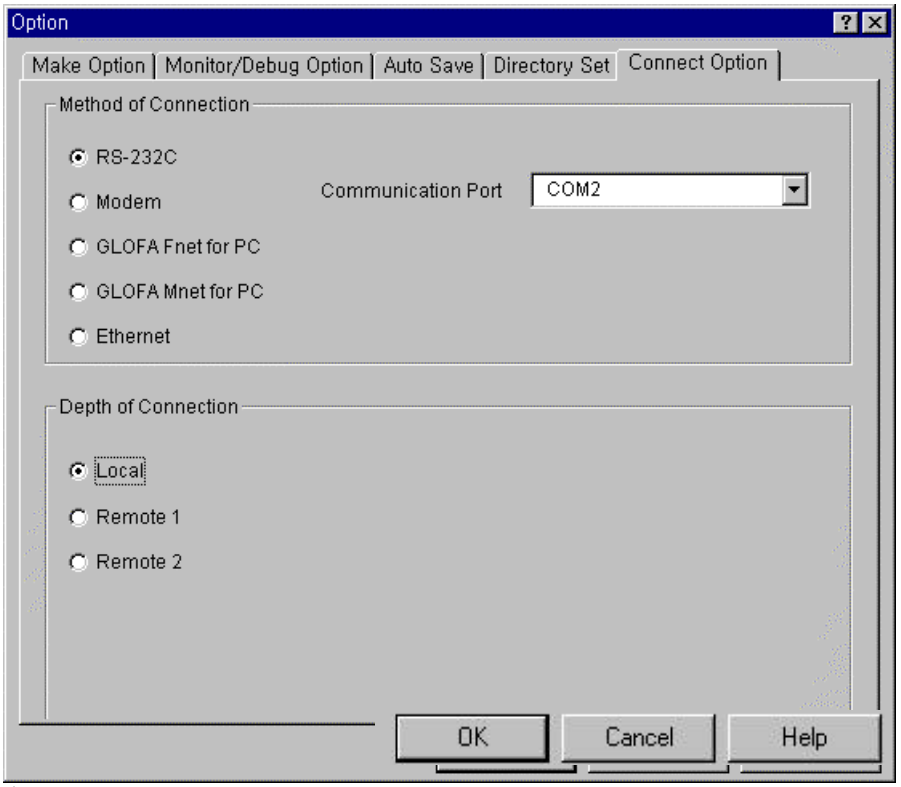
Remote Connection (See GLOFA Fnet/Mnet user's manual for more detail information)

◆ Setup ***IP address***.
◆ Click ***OK*** button.
◆ Choose ***Connect*** from the Online Menu.

1.2.2. Depth of Connection

1) Local Connection

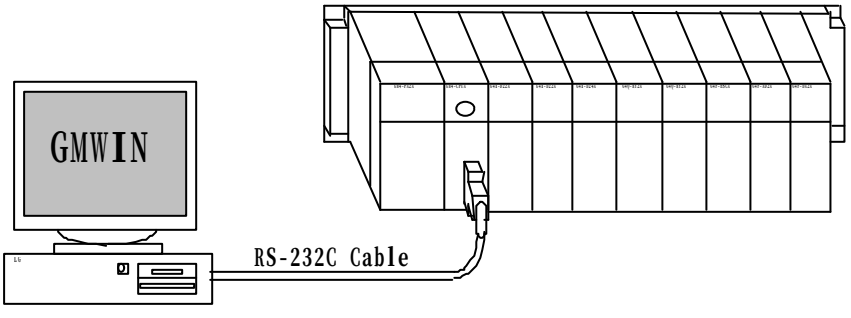
◆ From the Project Menu, choose ***Option***.
◆ Select ***Connect Option*** in ***Option***.
◆ Select ***Local*** in Depth of Connection.



◆ Click ***OK*** button.
◆ Choose ***Connect*** from the Online Menu.

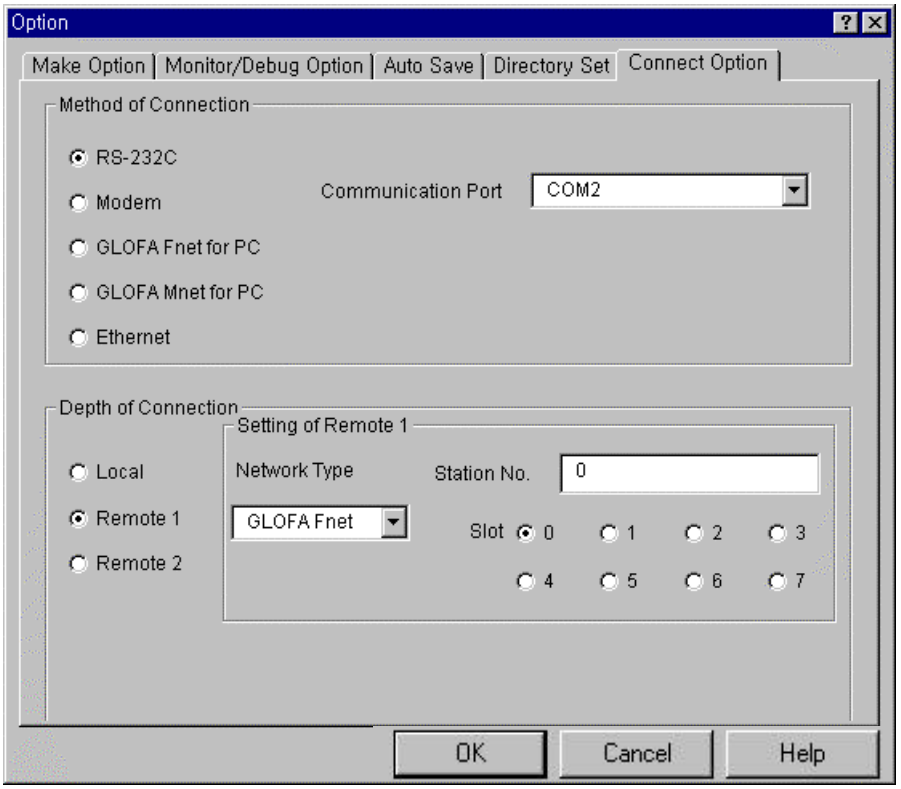
Note

Local Connection for GMWIN and PLC



2) Remote 1 Connection

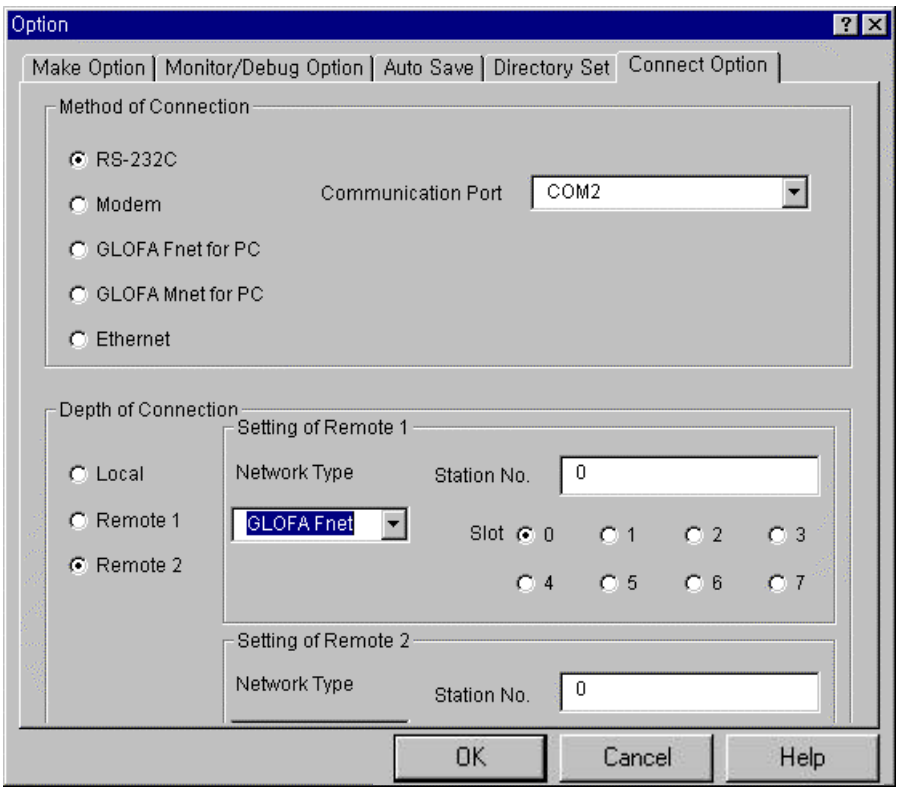
◆ From the Project Menu, choose ***Option***.
◆ Select ***Connect Option*** in ***Option***.
◆ Select ***Remote 1*** in Depth of Connection.



◆ Select ***Network Type*** and ***Slot*** in Depth of Connection.
◆ Select ***Station No.*** (only available in GLOFA Fnet, Fdnet and Mnet) or IP address(GLOFA-Enet). decimal or hexadecimal numbers are all available for ***Station No***.
◆ Click ***OK*** button.

3) Remote 2 Connection

◆ From the Project Menu, choose ***Option***.
◆ Select ***Connect Option*** in ***Option***.
◆ Select ***Remote 2*** in Depth of Connection.



Setup Remote 1 Box

◆ Select ***Network Type*** in Depth of Connection.
◆ Select ***Slot*** and ***Station No***.

Decimal and hexadecimal numbers are all available for the Station No.

Setup Remote 2 Box

◆ Select ***Network Type*** in Depth of Connection.
◆ Select ***Slot*** and ***Station No***.

Decimal and hexadecimal numbers are all available for the Station No.

◆ Click ***OK*** button.

Note

Local Connection, remote 1connection and remote 2 connection are as below.