

Chapter 1. Introduction

1.1. Characteristics of GMWIN.....	1-1
1.2. How to Connect GMWIN to PLC.....	1-4
1.2.1. Method of Connection	1-4
1.2.2. Depth of Connection.....	1-9

Chapter 2. Installation

2.1. System Requirement for GMWIN	2-1
2.2. GMWIN Installation	2-2
2.2.1. Installline program.....	2-2

Chapter 3. Getting Started

3.1. Create a Program.....	3-1
3.2. Configuration of Screen.....	3-13
3.2.1. The Menu Bar	3-13
3.2.2. The Tool Bar	3-19
3.2.3. The Toolbox	3-20
3.2.4. The Status Bar	3-20
3.3. How to use a Dialog Box	3-21
3.4. Files being created in GMWIN.....	3-21
3.5. Open a File	3-22
3.6. Save a File.....	3-23
3.6.1. Save a New File.....	3-23
3.6.2. Save a File on Working.....	3-23
3.6.3. Save as another name	3-23
3.7. Close a File.....	3-24

Chapter 4. Edit a Project

4.1. Create a Project.....	4-2
4.2. Open a Project.....	4-3
4.3. Save a Project.....	4-3
4.4. Edit Configuration.....	4-4
4.4.1. Edit a project.....	4-4

Table of Contents

4.4.2. Edit Configuration item.....	4-4
4.4.3. Edit a Configuration Global Variable.....	4-5
4.4.4. Edit Access Variable.....	4-7
4.4.5. Edit Resource.....	4-9
4.4.6. Edit Resource Global Variable.....	4-9
4.4.7. Define Task.....	4-9
4.4.8. Define Program.....	4-11
4.4.9. Comment of Direct Variable.....	4-13
4.5. Edit a Parameter.....	4-15
4.5.1. Edit Basic Parameter.....	4-15
4.5.2. Set I/O Parameter.....	4-17
4.5.3. Set the High Speed Link Parameter.....	4-21
4.5.4. Set Redundancy Parameter.....	4-29
4.5.5. Set Communication Parameter.....	4-36

Chapter 5. Edit a Program

5.1. Create a Program.....	5-1
5.2. Open a Program.....	5-2
5.3. Save a Program.....	5-3
5.4. Program Properties.....	5-3
5.5. Edit a Variable.....	5-4
5.6. Edit LD.....	5-7
5.6.1. Create a Contact.....	5-9
5.6.2. Create a Coil.....	5-9
5.6.3. Create a Function.....	5-9
5.6.4. Create a Function Block.....	5-10
5.6.5. Return.....	5-11
5.6.6. Jump and Label.....	5-12
5.6.7. Rung Comment.....	5-13
5.6.8. Subroutine Call.....	5-14
5.6.9. End of Main Program.....	5-14
5.6.10. Variable Input.....	5-15
5.6.11. Edit a Block.....	5-16
5.6.12. Find.....	5-17
5.6.13. Replace.....	5-19
5.6.14. Find/Replace Again.....	5-20
5.6.15. Goto.....	5-20

Table of Contents

5.6.16. Zoom In/Out.....	5-21
5.6.17. Variable Comment.....	5-22
5.6.18. Delete Row.....	5-22
5.6.19. Delete Cell.....	5-22
5.6.20. Insert Line.....	5-23
5.6.21. Insert Cell.....	5-23
5.6.22. Move/Copy Cell.....	5-23
5.6.23. Pop-Up Menu.....	5-23
5.6.24. Undo.....	5-24
5.6.25. Print and Preview.....	5-25
5.7. Edit SFC.....	5-27
5.7.1. Create a Step/Transition.....	5-28
5.7.2. Create a parallel Branch.....	5-29
5.7.3. Create a Selective Branch.....	5-31
5.7.4. Create a Label.....	5-33
5.7.5. Create a Jump.....	5-34
5.7.6. Create an Action.....	5-36
5.7.7. Create a Transition.....	5-40
5.7.8. Delete.....	5-41
5.7.9. Zoom In Action/Transition.....	5-44
5.7.10. Arrange number.....	5-45
5.7.11. Action/Transition List.....	5-46
5.7.12. Edit a Block.....	5-47
5.7.13. Find.....	5-48
5.7.14. Replace.....	5-48
5.7.15. Again.....	5-48
5.7.16. Goto.....	5-48
5.7.17. Condense Screen.....	5-48
5.7.18. Print.....	5-49
5.8. Edit IL.....	5-49
5.8.1. Operation Input.....	5-51
5.8.2. Function Input.....	5-52
5.8.3. Function Block Input.....	5-54
5.8.4. Label Input.....	5-56
5.8.5. Comment Input.....	5-56
5.8.6. Change an Inset/Overwrite Mode of Program.....	5-57
5.8.7. Delete a Program.....	5-57
5.8.8. Edit a Block.....	5-57

Table of Contents

5.8.9. Find	5-58
5.8.10. Replace	5-59
5.8.11. Again	5-59
5.8.12. Goto	5-60
5.8.13. Print	5-60

Chapter 6. Compile a Program

6.1. Make	6-1
6.2. Compile	6-1
6.3. Build All	6-1
6.4. Message	6-3
6.5. Memory Reference	6-3

Chapter 7. Online

7.1. Connect	7-1
7.1.1. Connect+Write+Run+Monitor On	7-1
7.1.2. Connect	7-1
7.2. Disconnect	7-1
7.3. Read from PLC	7-1
7.4. Write to PLC	7-2
7.5. Change PLC Mode	7-4
7.6. Clear PLC Data	7-4
7.7. PLC Reset	7-4
7.7.1. Reset	7-4
7.7.2. Overall Reset	7-5
7.8. Flash Memory	7-5
7.9. Setup Link Enable	7-6
7.10. PLC Information	7-6
7.10.1. System Information	7-6
7.10.2. Error/Warning Information	7-8
7.10.3. AC Fail History	7-9
7.10.4. Error History	7-9
7.10.5. Mode Change History	7-10
7.10.6. I/O Module Fault Information	7-11
7.11. I/O Information	7-12
7.12. Forced I/O Setup	7-13

7.13.	Enable I/O Forcing	7-14
7.14.	Link Information	7-15
7.15.	Tx/Rx Information	7-16
7.16.	Mnet Parameter	7-16
7.17.	Mnet Information	7-17
7.18.	I/O Skip	7-17
7.19.	Fault Mask	7-18
7.20.	Initialize Special Modules	7-19

Chapter 8. Monitoring

8.1.	Monitor a Program	8-1
8.1.1.	Monitor LD	8-1
8.1.2.	Monitor SFC	8-4
8.1.3.	Monitor IL	8-4
8.2.	Monitor a Variable	8-5
8.2.1	Register Variable	8-6
8.2.2.	Start Monitoring	8-8
8.2.3.	Set the View Type of Monitoring	8-8
8.2.4.	Data Display Form	8-8
8.2.5.	Forced Variable Output	8-9
8.2.6.	Monitor Array Variable	8-10
8.3.	I/O Monitoring	8-10
8.4.	Monitor a Time Chart	8-12
8.4.1.	Select a Variable	8-12
8.4.2.	Start Monitoring	8-14
8.4.3.	Set the View Type of Monitoring	8-15
8.4.4.	Set Time Interval	8-15
8.4.5.	Forced Variable Output	8-15
8.5.	Monitor a Link Parameter	8-16

Chapter 9. Debugging

9.1.	LD Debugging	9-1
9.1.1.	Break Run	9-1
9.1.2.	Step Run	9-2

Table of Contents

9.1.3. Step Into	9-4
9.1.4. Step Out.....	9-4
9.2. SFC Debugging.....	9-5
9.2.1. Break Run	9-5
9.2.2. Step Run	9-5
9.2.3. Step Into	9-6
9.2.4. Action Debugging.....	9-6
9.3. IL Debugging	9-7
9.3.1. Break Run	9-7
9.3.2. Step Run	9-7
9.3.3. Step Into	9-7
9.3.4. Step Out.....	9-7
9.3.5. Watch Current Result.....	9-7
9.4. View Break Point.....	9-8
9.5. Set a Break Condition	9-9
9.5.1. Break Scan.....	9-10
9.1.2. Break Variable.....	9-10
9.6. Enable Task Turnover.....	9-11

Chapter 10. Library

10.1. Type of Library File	10-1
10.2. Load a Library.....	10-2
10.3. Create User Defined Library File	10-6
10.3.1. Create User defined Function.....	10-6
10.3.2. Create a User Defined Function Block.....	10-15
10.3.3. Library Manager.....	10-23

Chapter 11. Option

11.1. Connet Option	11-1
11.1.1. Connetion with a series Communication.....	11-1
11.1.2. Connetion with Phone	11-2
11.1.3. Connetion with GLOFA Fnet for PC.....	11-3
11.1.4. Connetion with GLOFA Mnet for PC.....	11-3
11.1.5. Connetion with Eiher	11-3
11.1.1. Computer Link Information.....	11-4
11.2. Set the Directory of GMWIN.....	11-5

11.3. Auto Save.....	11-6
11.4. Set a Password.....	11-8
11.5. Monitor/Debug Option.....	11-9
11.6. Make Option.....	11-10

Chapter 12. Upload

12.1. Make Upload File	12-1
12.2. Write to PLC (Download)	12-2
12.3. Read from PLC (Upload).....	12-3

Chapter 13. Online Edit

13.1. Start Online Edit.....	13-1
13.2. Write for Online Edit.....	13-2
13.3. Cancel Online Edit.....	13-2
13.4. Available Items for Online Edit.....	13-3
13.5. Non-available items for Online Edit.....	13-3

Chapter 14. Simulation

14.1. Applied PLC and Specigication for PC	14-1
14.1.1. Applied PLC.....	14-1
14.1.2. Specification for PC	14-1
14.2. Create a Program.....	14-1
14.3. Available Program for Simulation.....	14-1
14.4. Start Simulation	14-1
14.5. Build an I/O Module	14-1
14.6. Add/Remove Module.....	14-2
14.7. Simulation of I/O Module	14-2
14.8. Power Simulation.....	14-2
14.9. A/D, D/A Simulation.....	14-3
14.9.1. Shape.....	14-3
14.9.2. Simulation.....	14-3
14.9.3. Analog type of A/D,D/A module.....	14-3
14.9.4. Change of Analog type and Display of converted data by channel.....	14-3
14.9.5. Analog Input of A/D module and Display of converted data	14-3
14.9.6. Digital Input of D/A module and Display of converted data	14-4

Table of Contents

14.10. Function by online menu	14-4
14.10.1. Monitor.....	14-4
14.10.2. Forced I/O Setup	14-4
14.10.3. Data Clear	14-4
14.10.4. Reset.....	14-4
14.10.5. Mode Change.....	14-4
14.11. Debugging.....	14-5
14.12. Stop Simulation	14-5

Appendix A. Error Code

Appendix B. GLOSSARY

Appendix C. Structure of GMWIN Menu