MITSUBISHI

GT Simulator2 Version1

Operating Manual
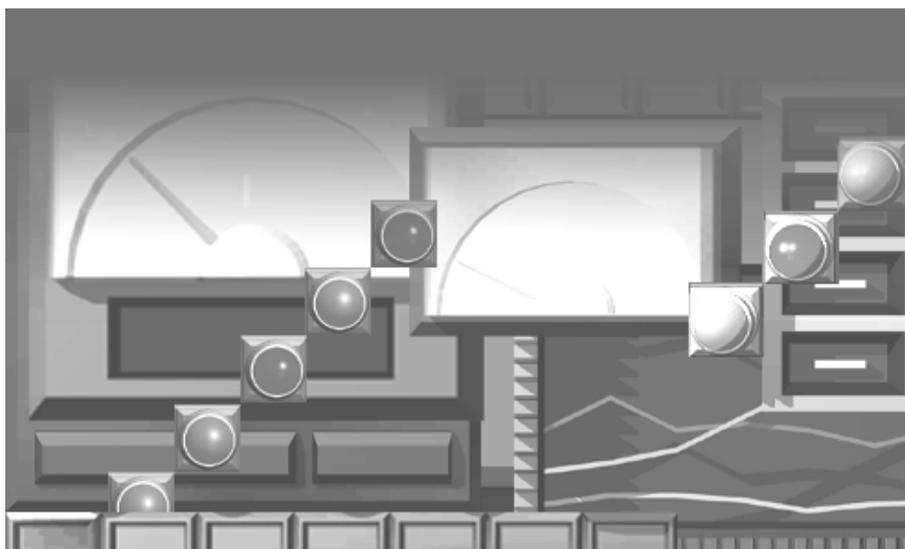
MELSOFT

Graphic Operation Terminal

900

series
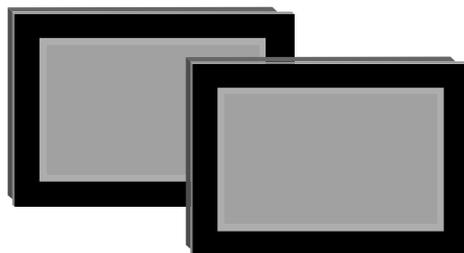
MELSOFT
Integrated FA Software

SW1D5C-GTWK2-E

MITSUBISHI Graphic Operation Terminal

• SAFETY PRECAUTIONS •

(Always read these instructions before using this equipment.)

Before using this product, please read this manual and the relevant manuals introduced in this manual carefully and pay full attention to safety to handle the product correctly.
The instructions given in this manual are concerned with this product. For the safety instructions of the programmable controller system, please read the CPU module user's manual.
In this manual, the safety instructions are ranked as "DANGER" and "CAUTION".

◇ DANGER	Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.
⚠ CAUTION	Indicates that incorrect handling may cause hazardous conditions, resulting in medium or slight personal injury or physical damage.

Note that the ⚠CAUTION level may lead to a serious consequence according to the circumstances.
Always follow the instructions of both levels because they are important to personal safety.

Please save this manual to make it accessible when required and always forward it to the end user.

[Test Operation Precautions]

◇ DANGER

- GT Simulator2 is designed to simulate the actual GOT to debug created screens. However, we do not guarantee the operations of the GOT and PLC CPU after debugging.
  After performing debugging on GT Simulator2, connect the GOT and PLC CPU and perform ordinary debugging before starting actual operation.
  Not using the actual GOT and PLC CPU for debugging may result in accidents due to incorrect outputs or malfunctions.

Precautions for using this software (important)

1. Memory of the personal computer used
   Processing may be terminated by Windows$^{®}$ on some personal computer models having main memory of not more than 32M bytes. Therefore, use them after increasing the main memory to 32M bytes or more.

2. Free space on the hard disk
   While this software is running, free space of at least 50M byte is required on the hard disk.
   Since free space of 50M byte is required by Windows$^{®}$ as the swap area, Windows$^{®}$ may forcibly terminate the program if that free space is used up while the drawing software is running. Produce a sufficient amount of free space on the hard disk before using the drawing software.
   When GT Simulator2 is used with GX Developer or GX Simulator, free space is required separately. Refer to the GX Developer or GX Simulator Operating Manual (Start up Manual) for the free space required for use of GX Developer or GX Simulator.

3. Instructions for displaying any line other than a continuous line (such as a dotted line) in boldface type
   When any line other than a continuous line is drawn in boldface type, the personal computer screen may not display the line type properly. However, it is displayed properly on the GOT and there are no problems in data.
   Please understand that it may be different from the actual image during simulation.

REVISIONS

Print Date	* Manual Number	Revision
Apr., 2003	SH (NA)-080399E-A	First edition
Aug., 2003	SH (NA)-080399E-B	Partial additions Section 2.2.3, Section 3.3.1, Section 3.3.3, Section 3.4 Partial corrections Section 2.1.2, Section 2.2.2, Section 3.2, Section 5.2, Section 5.2.1, Appendix 1.1
Jan., 2004	SH (NA)-080399E-C	Partial additions Section 2.2.3, Section 3.2, Section 3.3.1 Partial corrections Section 2.1.2, Appendix 1.2, Appendix 3 Additions Appendix 2
Jul., 2004	SH (NA)-080399E-D	Partial corrections Section 2.1.2, Section 2.2.1, Section 2.2.2, Section 2.2.3, Section 3.3.1, Section 5.2.1, Section 5.6, Section 7.4 MODEL CODE change Changed from 1D0J01 to 1DM209.
Oct., 2004	SH (NA)-080399E-E	Partial additions Section 2.2.3 Partial corrections Appendix 3

INTRODUCTION

Thank you for choosing the Mitsubishi Graphic Operation Terminal.
Before using the equipment, please read this manual carefully.

CONTENTS

About Manuals

The following manuals related to this product are available. Obtain the manuals as required the according to this table.

• Related manual

Manual Name	Manual Number (Model Code)
GT Works2 Version1/GT Designer2 Version1 Operating Manual (Startup • Introductory Manual) Describes methods of operating GT Designer2 and introductory drawing methods (Sold separately)	SH-080250 (1DM203)
GT Designer2 Version1 Operating Manual Describes methods of operating GT Designer2 and transmitting data to GOT (Sold separately)	SH-080278E (1DM205)
GT Designer2 Version1 Reference Manual Describes the specifications and settings of each object function used in GT Designer2 (Sold separately)	SH-080251 (1DM204)
GOT-A900 Series Operating Manual (GT Works2 Version1/GT Designer2 Version1 compatible Extended • Option Functions Manual) Describes the following extended functions and optional functions applicable to GOT Utility Ladder monitor System monitor Special module monitor Network monitor List editing Module monitor Servo amplifier monitor CNC monitor Font change (Sold separately)	SH-080253 (1DM206)

Abbreviations and generic terms in this manual

Abbreviations and generic terms used in this manual are described as follows:

Abbreviations and generic terms		Description
GOT	A985GOT-V	Generic term of A985GOT-TBA-V and A985GOT-TBD-V
	A985GOT	Generic term of A985GOT-TBA, A985GOT-TBD and A985GOT-TBA-EU
	A975GOT	Generic term of A975GOT-TBA-B, A975GOT-TBD-B, A975GOT-TBA, A975GOT-TBD and A975GOT-TBA-EU
	A970GOT	Generic term of A970GOT-TBA-B A970GOT-TBD-B, A970GOT-TBA, A970GOT-TBD, A970GOT-SBA, A970GOT-SBD, A970GOT-LBA, A970GOT-LBD, A970GOT-TBA-EU and A970GOT-SBA-EU
	A97∗GOT	Generic term of A975GOT and A970GOT
	A960GOT	Generic term of A960GOT-EBA, A960GOT-EBD and A960GOT-EBA-EU
	A956WGOT	Abbreviation of A956WGOT-TBD
	A956GOT	Generic term of A956GOT-TBD, A956GOT-SBD, A956GOT-LBD, A956GOT-TBD-M3, A956GOT-SBD-M3, A956GOT-LBD-M3
	A953GOT	Generic term of A953GOT-TBD, A953GOT-SBD, A953GOT-LBD, A953GOT-TBD-M3, A953GOT-SBD-M3, A953GOT-LBD-M3
	A951GOT	Generic term of A951GOT-TBD, A951GOT-SBD, A951GOT-LBD, A951GOT-TBD-M3, A951GOT-SBD-M3, A951GOT-LBD-M3
	A951GOT-Q	Generic term of A951GOT-QTBD, A951GOT-QSBD, A951GOT-QLBD, A951GOT-QTBD-M3, A951GOT-QSBD-M3, A951GOT-QLBD-M3
	A950GOT	Generic term of A950GOT-TBD, A950GOT-SBD, A950GOT-LBD, A950GOT-TBD-M3, A950GOT-SBD-M3, A950GOT-LBD-M3
	A950 handy GOT	Generic term of A953GOT-SBD-M3-H and A953GOT-LBD-M3-H
	A95∗GOT	Generic term of A956GOT, A956WGOT, A953GOT, A951GOT, A951GOT-Q, A950GOT and A950 handy GOT
	F940GOT	Generic term of F940GOT-SWD-E, F940GOT-LWD-E, ET-940BH(-L) and ET-940PH(-L)
	F930GOT	Abbreviation of F930GOT-BWD-E
	F940 handy GOT	Generic term of F940GOT-SBD-H, F940GOT-LBD-H, F943GOT-SBD-H and F943GOT-LBD-H
	F940WGOT	Abbreviation of F940WGOT-TWD
	F940GOT-RH	Generic term of F940GOT-SBD-RH, F940GOT-LBD-RH, F943GOT-SBD-RH, F943GOT-LBD-RH
	GOT-A900 series	Generic term of A985GOT-V, A985GOT, A975GOT, A970GOT, A960GOT, A95*GOT and GT SoftGOT2
	GOT-F900 series	Generic term of F940WGOT, F940GOT-RH, F940GOT, F930GOT and F940 handy GOT
Software	GT Works2 Version1	Abbreviation of SW1D5C-GTWK2-E software package
	GT Designer2 Version1	Generic term of SW1D5C-GTD2-E software package
	GT Designer	Abbreviation of image creation software GT Designer for GOT900
	GT Simulator2	Abbreviation of GT Simulator2 screen simulator GOT900
	GT Converter	Abbreviation of data conversion software GT Converter for GOT900
	GT SoftGOT2	Abbreviation of GT SoftGOT2 monitoring software.
	GX Developer	Generic term of SW☐D5C-GPPW-E/SW☐D5F-GPPW-E software packages
	GX Simulator	Generic term of SW☐D5C-LLT-E ladder logic test tool function software packages (SW5D5C-LLT-E or later)
	Acrobat Reader	Abbreviation of Adobe Acrobat Reader
CPU	QCPU (Q Mode)	Generic term of Q00JCPU, Q00CPU, Q01CPU, Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, Q25HCPU, Q12PHCPU, Q25PHCPU, Q12PRHCPU and Q25PRHCPU CPU units
	QCPU (A Mode)	Generic term of Q02CPU-A, Q02HCPU-A and Q06HCPU-A CPU units
	QCPU	Generic term of QCPU (Q Mode) and QCPU (A Mode)
	QnACPU Type	Generic term of Q2ACPU, Q2ACPU-S1, Q3ACPU, Q4ACPU and Q4ARCPU CPU units
	QnASCPU Type	Generic term of Q2ASCPU, Q2ASCPU-S1, Q2ASHCPU and Q2ASHCPU-S1 CPU units
	QnACPU	Generic term of QnACPU Type and QnASCPU Type
	AnUCPU	Generic term of A2UCPU, A2UCPU-S1, A3UCPU and A4UCPU CPU units
	AnACPU	Generic term of A2ACPU, A2ACPU-S1 and A3ACPU CPU units
	AnNCPU	Generic term of A1NCPU, A2NCPU, A2NCPU-S1 and A3NCPU CPU units
	AnCPU Type	Generic term of AnUCPU, AnACPU and AnNCPU CPU units
	A2US(H)CPU	Generic term of A2USCPU, A2USCPU-S1 and A2USHCPU-S1 CPU units
	AnS(H)CPU	Generic term of A1SCPU, A1SCPU-S1, A1SHCPU, A1SCPUC24-R2, A2SCPU and A2SHCPU CPU units
	A1SJ(H)CPU	Generic term of A1SJCPU, A1SJCPU-S3 and A1SJHCPU CPU units
	AnSCPU Type	Generic term of A2US(H)CPU, AnS(H)CPU and A1SJ(H)CPU CPU units
	ACPU	Generic term of AnCPU Type, AnSCPU Type and A1FXCPU CPU units
	FXCPU	Generic term of FX0 series, FX0N series, FX0S series, FX1 series, FX1N series, FX1NC series, FX1S series, FX2 series , FX2C series, FX2N series, FX2NC series and FX3UC series CPU unit
	Motion controller CPU	Generic term of A273UHCPU, A171SHCPU, A172SHCPU, A173UHCPU, A173UHCPU-S1 CPU unit

Abbreviations and generic terms		Description
CPU	FA controller	Generic term of LM610, LM7600, LM8000 CPU unit
	MELDAS C6/C64	Generic term of FCA C6 and FCA C64
Other PLC	Omron PLC	Generic term of C200HS, C200H, C200HX, C200HG, C200HE, CQM1, C1000H,C2000H,CV500, CV1000, CV2000, CVM1-CPU11, CVM1-CPU21, CS1, CS1D, CJ1H, CJ1G, CJ1M, CPM1, CPM1A, CPM2A, CPM2C CPU unit
	Yasukawa PLC	Generic term of GL60S, GL60H, GL70H, GL120, GL130, CP-9200SH, CP-9300MS, MP-920, MP-930, MP-940, CP-9200(H) and PROGIC-8 CPU unit
	SLC500 Series	Generic term of SLC500-20, SLC500-30, SLC500-40, SLC5/01 SLC5/02, SLC5/03, SLC5/04 SLC5/05
	MicroLogix1000 Series	Generic term of 1761-L10BWA, 1761-L10BWB, 1761-L16AWA, 1761-L16BWA, 1761-L16BWB, 1761-L16BBB, 1761-L32AWA, 1761-L32BWA, 1761-L32BWB, 1761-L32BBB, 1761-L32AAA, 1761-L20AWA-5A, 1761-L20BWA-5A, 1761-L20BWB-5A
	MicroLogix1500 Series	Abbreviation of 1764-LSP
	Allen-Bradley PLC	Generic term of SLC 500 Series, MicroLogix1000 Series, MicroLogix1500 Series
	Sharp PLC	Generic term of JW-21CU, JW-22CU, JW-31CUH, JW-32CUH, JW-33CUH, JW-50CUH, JW-70CUH, JW-100CU, JW-100CUH, Z-512J CPU unit
	PROSEC T Series	Generic term of T2(PU224 type), T2E, T2N, T3, T3H CPU unit
	PROSEC V Series	Generic term of S2T and Model 3000 (S3) CPU unit
	Toshiba PLC	Generic term of PROSEC T Series and PROSEC V Series
	SIEMENS PLC	Generic term of SIMATIC S7-300 Series and SIMATIC S7-400 Series CPU unit
	Large type H series	Generic term of H-302(CPU2-03H), H-702(CPU2-07H), H-1002(CPU2-10H), H-2002(CPU2-20H), H-4010(CPU3-40H),.J-300(CPU-03Ha), H-700(CPU-07Ha), H-2000(CPU-20Ha)
	H200 to 252 Series	Generic term of H-200(CPU-02H, CPE-02H), H-250(CPU21-02H), H-252(CPU22-02H), H-252B(CPU22-02HB), H-252C(CPU22-02HC, CPE22-02HC)
	H Series board type	Generic term of H-20DR, H-28DR, H-40DR, H-64DR, H-20DT, H-28DT, H-40DT, H-64DT, HL-40DR, HL-64DR
	EH-150 Series	Generic term of EH-CPU104, EH-CPU208, EH-CPU308, EH-CPU316
	HITACHI PLC (HIDIC H Series)	Generic term of large type H series,H-200 to 252 Series H Series board type, EH-150 Series
	Matsushita Electric Works PLC	Generic term of FP0-C16CT, FP0-C32CT, FP1-C24C, FP1-C40C, FP2, FP2SH, FP3, FP5, FP10(S), FP10SH, FP-M(C20TC) and FP-M(C32TC)
Others	Memory	abbreviation of mmory (flash memory) in the GOT
	OS	Abreviation of GOT system software
	Object	Setting data for dynamic image
	Personal Computer	Personal computer where the corresponding software package is installed

＊ In this manual, the following products are called by new names.

Old Name	New Name	Remarks
GPPW	GX Developer	Generic term of SW☐D5C-GPPW-E/SW☐D5F-GPPW-E software packages
LLT	GX Simulator	Generic term of SW☐D5C-LLT-E ladder logic test tool function software packages (SW5D5C-LLT-E or later)

Chapter 1 OVERVIEW

This manual describes the system configuration, screen makeup, basic dialog box operation methods and others of the GT Simulator2 screen simulator for GOT (hereafter abbreviated to GT Simulator2).
GT Simulator2 is designed to simulate GOT operations on a personal computer using the project data created on GT Designer2.

POINT
• For the installation method of GT Simulator2, refer to the GT Works2 Version1/GT Designer2 Version1 Operating Manual (Start up • Introductory Manual). • Refer to the GT Designer2 Version1 Reference Manual for object function settings, etc. when creating monitor screens on GT Designer2.

REMARK

GT Simulator2 can use the monitor data of both GT Designer and GT Designer2.

1.1 Features

(1) Simulation of GOT screen on personal computer
Simulating GOT operations on a personal computer enables you to debug monitor data if there is no GOT.
Since GT Designer2 can operate with GX Simulator to debug screens, installation of GX Simulator and GT Designer2 on the same personal computer allows operations from screen creation to screen debugging to be supported by a single personal computer.
Any correction made to a screen on GT Designer2 can be checked immediately on GT Simulator2, improving design efficiency greatly.
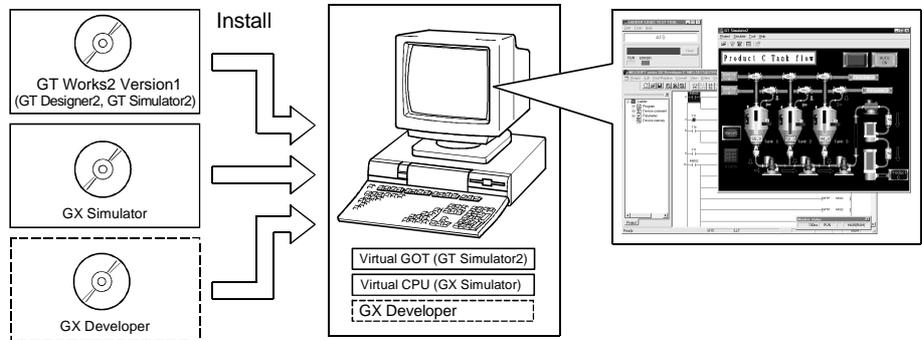
(2) Compatibility with special modules and network-compatible operating environment
Direct connection of a personal computer and PLC by a CPU allows monitoring and write operation debugging of special modules and on-network PLC which cannot be debugged by GX Simulator.
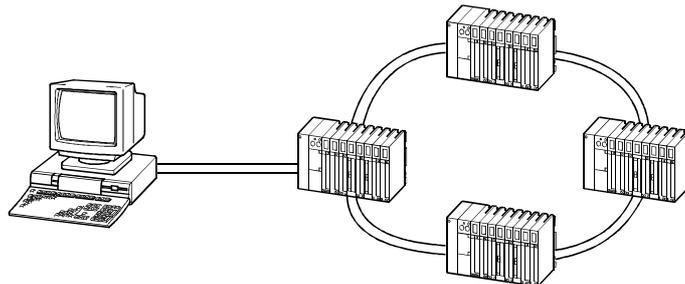
∗ When GT Simulator2 is connected with the PLC CPU, monitoring speed is lower than when it is connected with GX Simulator.

1

MEMO

Chapter 2 SYSTEM CONFIGURATION

2.1 System Configuration at Installation of GT Simulator2

2.1.1 System configuration

IBM PC/AT or 100% compatible

GT Works2 Version1
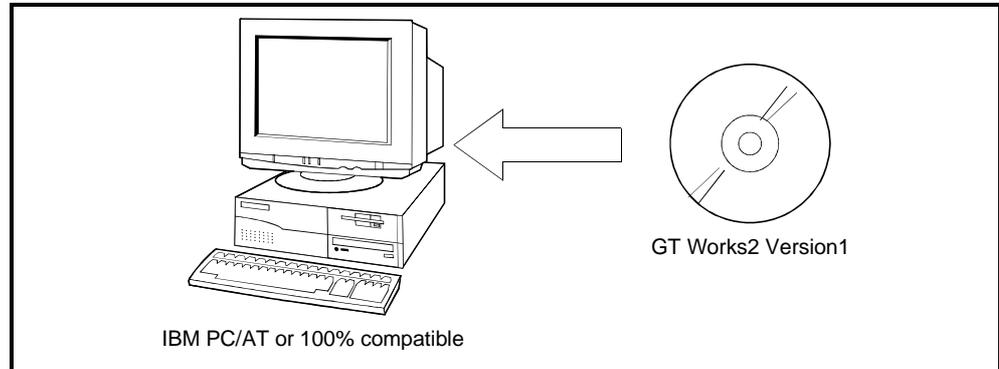
2.1.2 Operation environment

The following table shows the GT Simulator2 operating environment.

Item	Description
Personal computer	Personal computer on which Windows® operates.
OS	Microsoft® Windows® 98 operating system, Microsoft® Windows® Millennium Edition operating system, Microsoft® WindowsNT® Workstation 4.0 operating system＊2＊3, Microsoft® Windows® 2000 Professional operating system＊3, Microsoft® Windows® XP Professional operating system＊3＊4, Microsoft® Windows® XP Home Edition operating system＊3＊4
Computer main unit	Refer to "Used Operating System and performance required for personal computer main unit" on the next page.
CPU	
Required memory	
Hard disk space＊1	At the time of installation　　　　: 200M bytes or more At the time of operation　　　　　: 100M bytes or more
Disk drive	CD-ROM drive is mandatory.
Display color	256 colors or more
Display	Resolution of 800×600 dots or more
Necessary software	Required 　GT Designer or GT Designer2＊5 When GX Simulator is used 　For QCPU (A mode), ACPU, Motion controller CPU simulation　　　　: SW5D5C-LLT-E Version A or later 　For QCPU (Q mode)(Except Q00J/Q00CPU/Q01CPU), 　　　　　　　　　QnACPU, FXCPU＊6 simulation　　　　: SW5D5C-LLT-E Version E or later 　For Q00J/Q00CPU/Q01CPU simulation　　　　: SW6D5C-LLT-E Version A or later 　For Q12PHCPU, Q25PHCPU simulation　　　　: SW6D5C-LLT-E Version L or later 　For Q12PRHCPU, Q25PRHCPU simulation　　　　: SW6D5C-LLT-E Version W or later
Valid OS	Japanese, English ＊7

＊1 When this software is used with GX Developer or GX Simulator, free space is required separately.
　　Refer to the GX Developer or GX Simulator Operating Manual (Start up Manual) for the free space required for use of GX Developer or GX Simulator.
＊2 When using GT Simulator2, use a computer where WindowsNT® Workstation 4.0 of Service Pack 3 or later is installed.
＊3 The authority of the administrator is required when installing GT Simulator2 into WindowsNT® Workstation4.0, Windows® 2000 Professional, Windows® XP Professional or Windows® XP Home Edition; when using GT Simulator2 on Windows® XP Professional or Windows® XP Home Edition.
＊4 "Compatibility mode", "user's easy switching" and "desktop theme (font) change" are not supported.
＊5 Use GT Designer included in GT Works2 that contains GT Simulator2.
＊6 GX Simulator2 does not support FX3UC. Use GX Simulator for simulating FX3UC within the FX2N range.
＊7 Characters in the dialog box may not be properly displayed when OS other than the above is used.

Used Operating System and performance required for personal computer main unit

Operating System	Performance required for personal computer main unit		
	CPU	Required memory	
		GT Simulator2 only	GT Simulator2 + GX Developer + GX Simulator
Windows® 98	Pentium® 200MHz or more (Pentium II® 300MHz or more recommended)	32MB or more (96MB or more recommended)	64MB or more (96MB or more recommended)
Windows® Me	Pentium® 200MHz or more (Pentium II® 300MHz or more recommended)	32MB or more (96MB or more recommended)	64MB or more (96MB or more recommended)
WindowsNT® Workstation 4.0	Pentium® 200MHz or more (Pentium II® 300MHz or more recommended)	32MB or more (96MB or more recommended)	64MB or more (96MB or more recommended)
Windows® 2000 Professional	Pentium® 200MHz or more (Pentium II® 300MHz or more recommended)	64MB or more (96MB or more recommended)	64MB or more (96MB or more recommended)
Windows® XP Professional Windows® XP Home Edition	Pentium II® 300MHz or more (Pentium II® 450MHz or more recommended)	128MB or more (192MB or more recommended)	128MB or more (192MB or more recommended)

POINT

Depending on the language of your Operating System, this software may not start.
In such a case, start this software after setting the Regional Settings within Control Panel of Windows® to "English".

2.2 System Configuration for GT Simulator2 Execution

2.2.1 System configuration
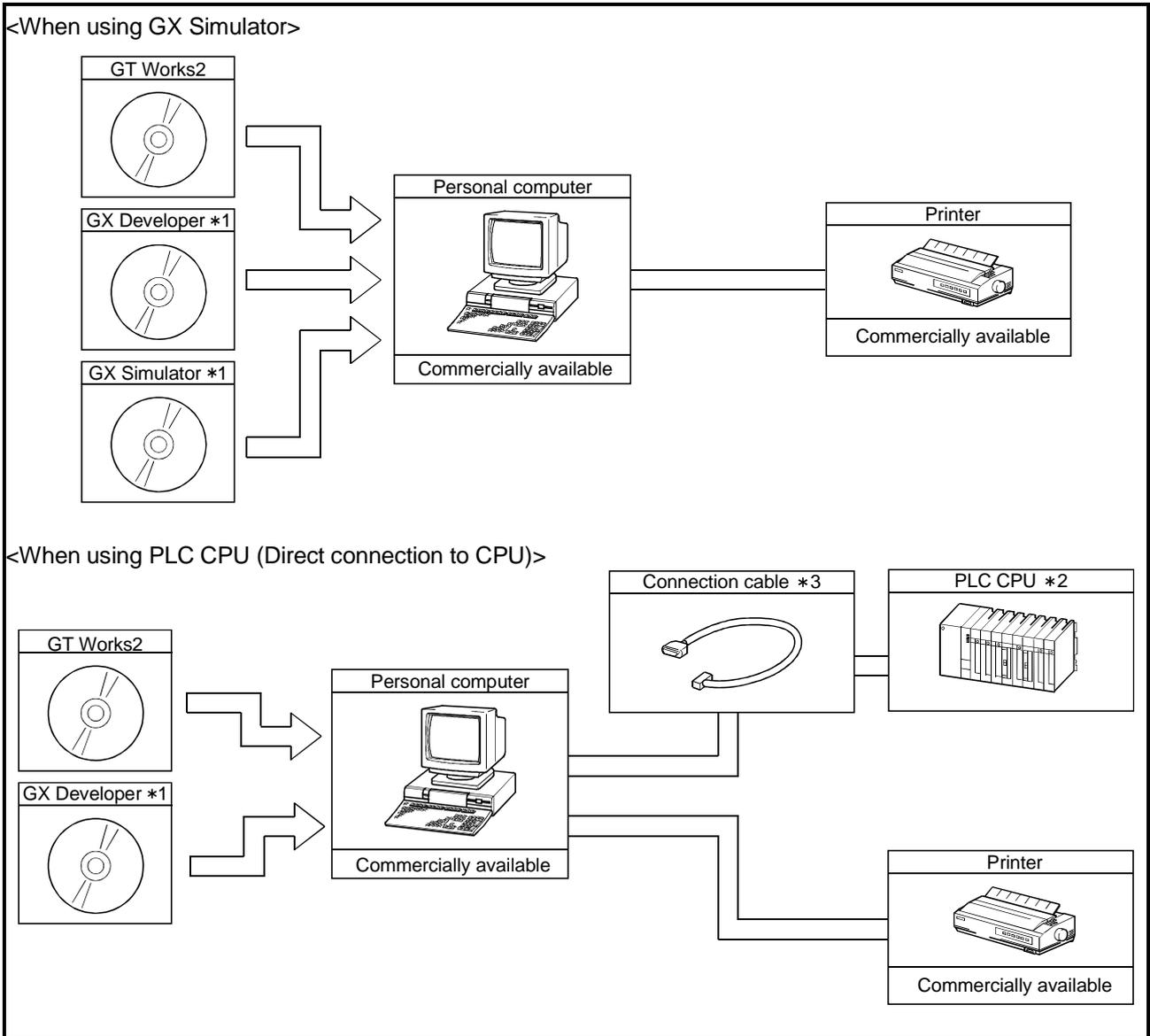
∗1 For how to install GX Developer and GX Simulator, refer to the GX Developer and GX Simulator Operating Manuals
   (Start up Manual).
∗2 Refer to Section 2.2.2 for usable PLC CPUs.
∗3 Refer to Section 2.2.3 for cables for connection of the personal computer and PLC CPU.

2.2.2 Applicable CPUs

The following table indicates the PLC CPUs that may be connected to GT Simulator2 (personal computer).

Variety		Type	Connection form
QCPU	QCPU (Q Mode)	Q00JCPU, Q00CPU, Q01CPU, Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU, Q25HCPU, Q12PRHCPU, Q25PRHCPU	Direct connection to CPU
	QCPU (A Mode)	Q02CPU-A, Q02HCPU-A, Q06HCPU-A	
QnACPU	QnACPU type	Q2ACPU (S1), Q3ACPU, Q4ACPU, Q4ARCPU	
	QnASCPU type	Q2ASCPU (S1), Q2ASHCPU (S1)	
ACPU	ACPU (Large type)	A2UCPU (S1), A3UCPU, A4UCPU, A2ACPU (S1), A3ACPU, A1NCPU, A2NCPU (S1), A3NCPU (Version L or later for the one with link, version H or later for the one without link of AnN (S1))	
	ACPU (Small type)	A2USCPU (S1), A2USHCPU-S1, A1SCPU (S1), A1SHCPU, A1SCPUC24-R2, A2SCPU (Version C or later), A2SHCPU, A1SJCPU (S3), A1SJHCPU, A0J2HCPU (Version E or later) A2CCPU (Version H or later), A2CCPUC24, A2CJCPU	
	A1FXCPU		
Motion controller CPU (A series)	A171SHCPU∗1, A172SHCPU∗2, A173UHCPU (S1) ∗3, A273UHCPU∗3		
FXCPU	FX0,FX0N, FX0S, FX1, FX1N, FX1NC, FX1S, FX2, FX2C, FX2N, FX2NC, FX3UC∗4		
MELDAS C6/C64	FCA C6, FCA C64		

∗1 Monitoring is allowed in the A1SHCPU range only.

∗2 Monitoring is allowed in the A2SHCPU range only.

∗3 Monitoring is allowed in the A3UCPU range only.

∗4 Monitoring is allowed in the FX2N device range only.

∗5 When the monitor destination is a multiple PLC system, the following CPU can be monitored.

　• For host station monitoring　: Only the CPU connected to the personal computer can be monitored.

　• For other station monitoring　: Only the control PLC which controls the network module can be monitored.

2.2.3 About the converter/cable

The following cables/converter have been confirmed by us that proper operation can be performed.

(1) QCPU

(a) Using the cable of Mitsubishi Electric make

RS-232 cable
QC30R2 (when peripheral device connector is D-sub, 9-pin)
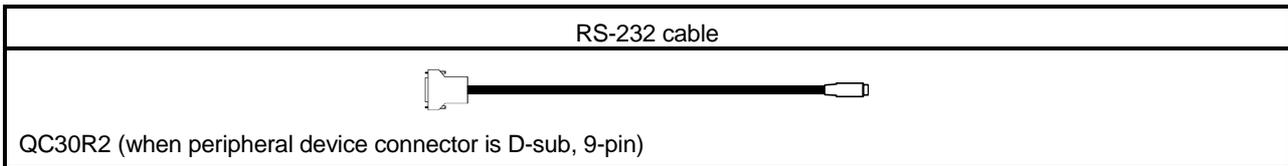
- The USB communication is not allowed between GT Simulator2 and QCPU.
  (If the USB communication is attempted, a confirmation message, "Check communication.", is displayed.)

(2) QnACPU, ACPU, Motion controller CPU, FXCPU

(a) Using the product of Mitsubishi Electric make

Peripheral Device Side (RS-232C cable)	RS-232C/RS-422 Converter	PLC CPU Side (RS-422 cable)
F2-232CAB-1 (when peripheral device connector is D-sub, 9-pin)	FX-232AW FX-232AWC FX-232AWC-H (FX series only)	For ACPU, Motion controller CPU, QnACPU, FX_1/FX_2/FX_{2C}CPU FX-422CAB (0.3m) FX-422CAB-150 (1.5m) For FX_0/FX_{0S}/FX_{0N}/FX_{1S}/FX_{1N}/FX_{2N}/FX_{2NC}/FX_{3UC}CPU FX-422CABO (1.5m)
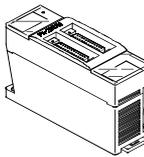
- When the FX-232AWC-H is used for connection with the FX_{3UC}, the transmission speed 9.6kbps, 19.2kbps, 38.4bps, 57.6kbps or 115.2kbps is available.
  When the FX-232AWC or FX-232AW is used for connection, select either the transmission speed 9.6kbps or 19.2kbps.
- When using the F2-232CAB or F2-232CAB-1 cable, use a compatible product.
  You cannot use an incompatible product.
  Check the type label indication on the cable to see if it is compatible or not.

Incompatible products   Compatible products (with indication of F/FX/A)

F2-232CAB Y990C*****	→	F2-232CAB(F/FX/A) Y990C*****
F2-232CAB-1 Y990C*****	→	F2-232CAB-1(F/FX/A) Y990C*****
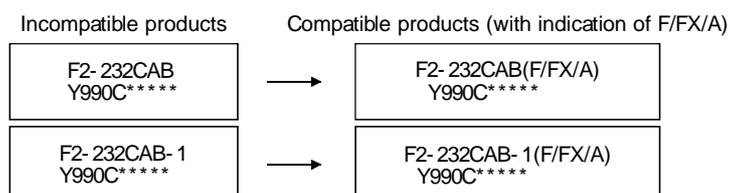
(3) For MELDAS C6/C64

When connecting GT Simulator2 and the MELDAS C6/C64, use a conversion cable with the communication terminal connector (TERMINAL) of the MELDAS C6/C64.

Produce the conversion cable by reference to the following connection diagram. For details, refer to the relevant MELDAS C6/C64 manual.

(a) Conversion cable connection diagram

MELDAS C6/C64 (TERMINAL) Side (20-pin half-pitch)		Cable Connection and Signal Direction	Personal Computer (GT Simulator2) Side (9pin D-SUB)
Signal name	Pin number		Signal name
GND	1		GND
	2		RD
	3		SD
	5		GND
SD	6		DR (DSR)
	8		CS (CTS)
GND	11		
RD	16		
ER (DTR)	18		
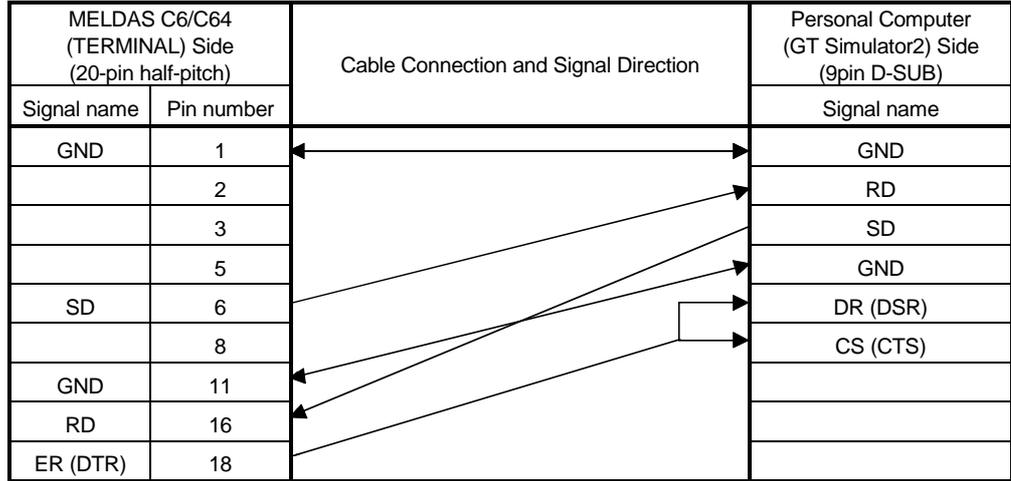
(b) Applicable connector and connector cover

1) MELDAS C6/C64 side

Connector	10120-3000VE(Sumitomo 3M Ltd.)
Connector cover	10320-52F0-008(Sumitomo 3M Ltd.)

2) Personal computer side
Use connectors compatible with the personal computer.

(c) Precautions when producing the conversion cable

The length of the conversion cable must be 15m or shorter.

REMARK

The cables/converter used with GT Simulator2 are the same as the cables/converter used with GX Developer.

MEMO

Chapter 3 SPECIFICATIONS

3.1 Specifications of the GOTs Simulated

The following table indicates the specifications of the GOTs simulated on GT Simulator2.

Name	Resolution (dots)	Display color	Memory capacity	Connection form
GT SoftGOT2	1280×1024	256 colors	33M bytes	Direct connection to CPU
	1024×768			
	800×600			
	640×480			
A985GOT (-V)	800×600		9M bytes	
A97＊GOT	640×480			
A960GOT	640×400			
A956WGOT	480×234			
A95＊GOT＊1	320×240		3M bytes	

＊1 Incompatible with the grip and operation switches of the A950 handy GOT.
＊2 The display section does not allow two points to be touched together.
＊3 Any GOT other than the above cannot be simulated.

> **POINT**
> • Though the actual GOTs differ in display colors between models, all GOTs simulated by GT Simulator2 show 256 colors.
>   Make check on the display colors in "Preview" of GT Designer2.

3.2 Functions that cannot be simulated

Note that the following functions cannot be used on GT Simulator2.

Function category	Function name		
Object functions＊1	Report function＊3, Barcode function,	Hard copy function＊3＊4, Operation Panel function＊5	Test function,
Extension function＊2	System monitor function＊2＊3		
Option functions＊2	Ladder monitor function＊5, Network monitor function＊5, CNC monitor function	Special unit monitor function, Motion monitor function＊5,	List editor function＊5, Servo amplifier monitor function,
Other functions	Transparent function, Sound function＊4, Gateway function,	Human sensor function, VIDEO/RBG display function＊6, Font change function	Brightness adjustment function, Mail function,

＊1 For function details, refer to the GT Designer2 Version1 Reference Manual.
＊2 For function details, refer to the GOT-A900 Series Operating Manual (GT Works2 Version1/GT Designer2 Version1 compatible Extended・Option Functions Manual).
＊3 Can be used when simulating GT SoftGOT2.
   Stored as data into each folder within C:/Melsec/GSS2.
   (The hardcopy function can be used only when the output destination is set to the PC card.)
＊4 By using the GT Simulator2 snapshot and printing functions equivalent functions become possible.
＊5 By using GT Simulator2 and GX Developer together on the personal computer, equivalent functions become possible.
＊6 The video window is showed by blue color. (The video pictures are not showed)
   The RGB screen cannot be displayed.

3

(1) About utility functions

(a) About display of utility screen
GT Simulator2 does allow two points on the display section to be touched together.
To display the utility screen, therefore, you need to preset the touch key for displaying the utility screen at the time of screen creation.

(b) Usability of utility functions
When using the utility functions on GT Simulator2, not that some functions are unusable.
The following table indicates whether the utility functions are usable or not on GT Simulator2.

○: Usable ×: Unusable

Item	Usability
System monitor	×
Network monitor	×
List editor	×
Ladder monitor	×
Motion/CNC monitor	×
Special unit monitor	×
Servo amplifier monitor	×
Memory information	×
Screen & OS copy	×
Set up	○
Clock	×
Screen clean up	×
Password	○
Self-test	×
Brightness/contrast adjustment	×

POINT

• In the setup of the utility functions, some functions are inoperative if set.
  The following table indicates whether they are operative or not on GT Simulator2.

○: Operative △: Partly restricted ×: Inoperative

Item	Operability	Description
Buzzer volume	△	Microsoft® Windows® 98 operating system/ Microsoft® Windows® Millennium Edition operating system is used, "LONG" and "SHORT" of the buzzer volume are not reflected.
Outside speaker	○	Operates.
Screen save time	×	May be set but does not function.
Screen save light	×	May be set but does not function.
Language	○	Operates.

3.3 Restrictions on and Instructions for use of GT Simulator2

This section gives the restrictions on and instructions for use of GT Simulator2.

3.3.1 Restrictions on and instructions for GT Simulator2

(1) Monitor data that may be simulated
  • GT Simulator2 can simulate only the monitor data whose GOT type has been set to the GOT-A900 series ("A985GOT", "A97✳GOT", "A960GOT", "A95✳GOT", "GT SoftGOT2") on GT Designer2.
    The monitor data which has been created by setting the GOT type to the GOT-F900 series ("F940GOT", "F930GOT") on GT Designer2 can be simulated by changing the GOT type to the GOT-A900 series.
    However, note that any functions the GOT-A9000 series is incompatible with cannot be converted.
    When changing the GOT type, always back up the data.
    Incompatible functions may not be converted at the time of GOT type changing, and the functions may not be converted properly when the GOT type is changed to the GOT-F900 series again.
  • The monitor data created on GT Designer2 with the third party PLC set as the PLC type can be simulated by setting the ACPU as the CPU type in the option setting of GT Simulator2 only when GX Simulator is connected.
    Note that the device ranges that can be monitored differ from those of the GOT. (Refer to Section 3.4 for the device ranges that can be monitored on GT Simulator2.)
  • If you use on GT Simulator2 the monitor data of GT Designer of SW3D5C-GOTRE-PACK or earlier or the monitor data converted with GT Converter, proper operation may not be performed.
    The monitor data created with GT Designer of SW3D5C-GOTRE-PACK or earlier or the monitor data converted with GT Converter should be read once on GT Designer of SW4D5C-GOTR-PACKE or later or on GT Designer2 and saved.
  • Make sure to use the same or newer version of GT Simulator2 than that of GT Designer2 used to create the monitor data.
    When the older version is used, some problems may occur such as file is not able to be opened and/or some functions/settings are invalid.
    For monitor data compatibility, refer to Appendix 2.

(2) Differences in display operation between GT Simulator2 and GOT
  If 32-bit real number data has become unauthorized data for some reason, note that there are differences in display operation between GT Simulator2 and GOT.

(3) About drawing images
  The drawing images of GT Simulator2 are matched with those of GT Designer2. Hence, the display of GT Simulator2 may differ from that of the actual GOT.

(4) About object functions
- Though the actual GOT reads and shows the clock data of the PLC CPU, GT Simulator2 displays the clock data of the personal computer, not the clock data of the PLC CPU.
- If you perform a memory card save with the alarm history function or the recipe function, data is saved on the hard disk.
  Also, data can not be output directly to the printer using the report function, hard copy function, etc.
  A print image (TXT/CSV/BMP format file) is saved to the personal computer's hard disk, so output each file to the printer separately.
  The saving folder will vary according to the GOT type setting in the option settings, so take care.
  Each bit of data is stored in the folder listed below on the personal computer's hard disk.

```
Melsec
 └─Gss2
    └─MemCard.............Alarm history function and recipe function          If a GOT other than
                         data is stored.                                    SoftGOT is selected
                                                                            with GOT type, it is
        ──Alarmhst......Alarm history function data is stored.              saved in this folder.
        ──Hardcopy.....Hard copy function data is stored.                   If SoftGOT is select
        ──Recipe.........Recipe function data is stored.                    with GOT type, it is
        ──Report..........Report function data is stored.                   saved in this folder.
```

- A file saved as a printing image will not be deleted even if GT Simulator2 is exited. Because of that, files saved as printing images will accumulate on the personal computer's hard disk, and the GT Simulator2 may not operate due to a lack of available open space on the hard disk.
  If the printing trigger is frequently set to ON and monitor data is used, check that there is enough available open space on the personal computer's hard disk, and delete printing files if necessary.
- If Wordpad or Memopad were used to open saved printing image files (TXT files), the display of the character spacing may be slightly out of line. If the character spacing is out of line, adjust the character font or font size.
- With the recipe function, if there is a recipe file present in the PC card, a new recipe file will not be created as with the actual GOT.
  Because of that, if there is a recipe file in the MemCard or Recipe folder that differs from the read monitor data's recipe function settings, reading data from or writing data to the recipe file may not operate normally.
  In these cases, delete the recipe files in the MemCard or Recipe folder before reading the monitor data.
  Also, if you put a check in the "Delete recipe file after reading" check box under "Option" - "Operation Settings" before reading the monitor data, the recipe files in the MemCard or Recipe folder will automatically be deleted when the monitor data is read.
  However, all recipe files in the MemCard or Recipe folder will be deleted, so take care.

• When using BMP image parts for the parts display function or parts movement
function, use the BMP files saved in the hard disk of the personal computer.
After the Soft GOT2 is restarted, the BMP files are stored in the Image folder
that was generated automatically in the MemCard folder.

```
Melsec
    └─ Gss2
         └─ MemCard
              └─ Image......BMP file parts are stored.
```
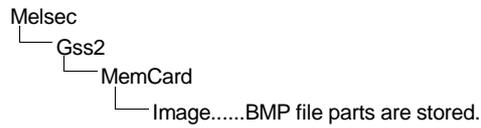
For details of the BMP image parts, refer to the GT Designer2 Version 1
Reference Manual.
• When setting the odd point of 16-bit data as the first device with the recipe
function at the time of FXCPU connection, use the device of CN199 or earlier.
• Note that the recipe files created on GT Simulator2 are not compatible with
those created on the GOT.

3.3.2 Restrictions on and instructions for GX Simulator

- When GX Simulator was started from GT Simulator2, GX Simulator cannot be started from GX Developer.
  When starting GX Simulator from GX Developer, exit from GT Simulator2 once, then restart GX Simulator from GX Developer.
- When GX Simulator started from GX Developer is used on GT Simulator2, exit from GX Developer and GX Simulator after exiting from GT Simulator2.
  Not that if you exit from GX Developer and GX Simulator first, GT Simulator2 will result in a communication error.
- Monitoring the buffer memory with GT Simulator2 requires I/O assignment to be made on GX Developer.
  When the default is specified in a GX Developer project at the time of GX Simulator connection, note that the buffer memory cannot be monitored since I/O assignment has not been made.
  When monitoring the buffer memory, specify the I/O-assigned project in the GX Developer project.
- When GX Simulator is used, the host station may only be monitored.
  Note that when another station is monitored using the station number switching function, another station is handled as the host.
- Use GT Simulator2, GX Developer and GX Simulator of the same language.
- Note that the devices unsupported by GX Simulator can be used on GT Simulator2.
- When access was made to any file register outside the range, GX Simulator can read "0" even outside the range. Hence, note this when using the recipe function for continuous read/write.

3.3.3 Restrictions on and instructions for PLC CPU connection

- GT Simulator2 supports only connections with the QnACPU, ACPU, motion controller CPU, FXCPU and MELDAS C6/C64.
  It cannot be connected to third-party PLCs.
  Refer to Section 2.2.2 for connectable CPUs on GT Simulator2.
- GT Simulator2 enables simulation for direct connection to CPU only.
  GT Simulator2 cannot be used to perform simulation for bus connection, computer link connection, MELSECNET connection, CC-Link connection and the like.
- When GT Simulator2 is connected with the PLC CPU, the monitor speed is lower than on the actual GOT.
- When connecting GT Simulator2 to FX0, FX0S, FX1, FX1S, FX2 or FX2C via 2PIF, use 2PIF of Ver 3.01A or later.
- When connecting GT Simulator2 to the function extension board of the FXCPU, you must make the following settings on the FXCPU side.
  1) On GX Developer, choose "PLC parameter"-"PLC System setting (2)" and click the checked "Communication setting" check box.
  2) Set "0" in device "D8120".
- When GT Simulator2 is connected to the QnACPU, note that any other station than the QnACPU cannot be monitored.
  The access ranges of the other network systems that can be monitored are the same as those of the GOT.

3.4 Device Ranges That Can Be Monitored

The following device ranges can be monitored on GT Simulator2.

POINT
When GX Simulator is connected, the devices unsupported by GX Simulator cannot be monitored.

(1) For Q/QnA/A/FXCPU/MELDAS C6/C64

The devices usable with the GOT can be monitored.

For details of the device ranges that may be set, refer to GT Designer2 Version1 Reference Manual.

(2) For third party PLC (can be monitored only when GX Simulator is connected)

The device ranges which can be monitored differ from those usable with the GOT.

(The devices outside the ranges cannot be displayed properly by the device monitor function.)

The following device ranges can be monitored by the GT Simulator2.

(a) OMRON SYSMAC (Omron PLC)

	Device name	Available range for monitoring with GOT	Available range for monitoring with GT Simulator2
Bit device	I/O relay	..0000 to 614315	..0000 to 008115
	Internal auxiliary relay		
	Data link relay (LR)	LR00000 to LR19915	LR00000 to LR08155
	Auxiliary memory relay (AR)	AR00000 to AR95915	——
	Holding relay (HR)	HR00000 to HR51115	HR00000 to HR08115
	Internal holding relay (W)	WR00000 to WR51115	WR00000 to WR08115
	Timer contact (TIM)	TIM0000 to TIM2047	TIM0000 to TIM0255
	Counter contact (CNT)	CNT0000 to CNT2047	CNT0000 to CNT0255
	Data memory (DM)	DM00000 to DM9999	DM00000 to DM8191
	Timer (current value) (TIM)	TIM0 to TIM2047	TIM0000 to TIM0255
	Counter (current value) (CNT)	CNT0000 to CNT2047	CNT0000 to CNT0255
	GOT bit register (GB)	GB64 to GB1023	GB64 to GB1023
Word device	I/O relay	0000 to 6143	0000 to 0081
	Data link relay (LR)	LR000 to LR199	LR000 to LR031
	Auxiliary memory relay (AR)	AR000 to AR959	——
	Holding relay (HR)	HR000 to HR511	HR000 to HR081
	Internal holding relay (W)	WR000 to WR511	WR000 to WR081
	Data memory (DM)	DM0000 to DM9999	DM0000 to DM8191
	Timer (current value) (TIM)	TIM0000 to TIM2047	TIM0000 to TIM0255
	Counter (current value) (CNT)	CNT0000 to CNT2047	CNT0000 to CNT0255
	Extended data memory (EM current bank)	EM0000 to EM9999	——
	Extended data memory (EM banks 0 to 12)		
	GOT data register (GD)	GD64 to GD1023	GD64 to GD1023
	GOT special register (GS)	GS0 to GS511	GS0 to GS511

(b) Yasukawa PLC
1) YASUKAWA GL/PROGIC-8 (GL60S, GL60H, GL70H, GL120, GL130, PROGIC-8)

Device name		Available range for monitoring with GOT		Available range for monitoring with GT Simulator2
		GL60S, GL60L, GL70H,GL120, GL130	PROGIC-8	
Bit device	Coil	O01 to O63424	O0001 to O2048	O01 to O08716 ∗1
	Input relay	I1 to I63424	I0001 to I0512	I1 to I08716 ∗2
	Link coil	D1 to D2048	D0001 to D1024	D1 to D2048
		D10001 to D12048 D20001 to D22048	────	────
	GOT bit register	GB64 to GB1023	GB64 to GB1023	GB64 to GB1023
Word device	Input register	Z1 to Z31840	Z0001 to Z0128	Z1 to Z8191, Z9000 to Z9255
	Holding register (W, SW)	W1 to W28291	W0001 to W2048	W1 to W8191
		SW1 to SW28291	SW1 to SW2048	────
	Link register (R, SR)	R1 to R2048	────	R1 to R2048
		R10001 to R12048 R20001 to R22048	R0001 to R1024	────
		SR1 to SR2048	SR1 to SR1024	────
		SR10001 to SR12048 SR20001 to SR22048		
	Constant register	K1 to K4096	────	K1 to K6
	GOT data register	GD64 to GD1023	GD64 to GD1023	GD64 to GD1023
	GOT special register (GS)	GS0 to GS511	GS0 to GS511	GS0 to GS511

∗1 O008717 to O08191 should not be used with GT Simulator2 because they are not shown correctly.

∗2 I008717 to I08191 should not be used with GT Simulator2 because they are not shown correctly.

2) YASUKAWA CP-9200SH/MP900Series (CP-9200SH, MP-920, MP-930, MP-940)

Device name		Available range for monitoring with GOT	Available range for monitoring with GT Simulator2
Bit device	Coil	MB0 to MB4095F MB40960 to MB8191F MB245760 to MB28671F MB386720 to MB32767F	MB0 to MB511F
	Input relay	IB0000 to IBFFFF	IB0000 to IB1FFF
	GOT bit register	GB64 to GB1023	GB64 to GB1023
Word device	Input register	IW0 to IW7FFF	IW0 to IW1FFF
	Holding register	MW0 to MW32767	────
	GOT data register	GD64 to GD1023	GD64 to GD1023
	GOT special register (GS)	GS0 to GS511	GS0 to GS511

3) YASUKAWA CP-9200 (H)

Device name		Available range for monitoring with GOT	Available range for monitoring with GT Simulator2
Bit device	Coil	OB00000 to OB007FF	OB00000 to OB007FF
	Input relay	IB00000 to IB007FF	IB00000 to IB007FF
	GOT bit register	GB64 to GB1023	GB64 to GB1023
Word device	Input register	IW00000 to IW007F	——
	Output register	OW0000 to OW007F	——
	Data register	DW0000 to DW02047	——
		ZD0000 to ZD02047	ZD0000 to ZD00006
	Common register	MW0000 to MW7694	——
	GOT data register	GD64 to GD1023	GD64 to GD1023
	GOT special register (GS)	GS0 to GS511	GS0 to GS511

4) YASKAWA CP-9300MS (CP-9300MC incompatible)

Device name		Available range for monitoring with GOT	Available range for monitoring with GT Simulator2
Bit device	Coil	MB0 to MB3071F	MB0 to MB511F
	Input relay	IB0000 to IB3FF	IB0000 to IB1FFF
	GOT bit register	GB64 to GB1023	GB64 to GB1023
Word device	Input register	IW0 to IW3F	IW0 to IW1FFF
	Holding register	MW0 to MW3071	MW0 to MW8191
	GOT data register	GD64 to GD1023	GD64 to GD1023
	GOT special register (GS)	GS0 to GS511	GS0 to GS511

5) YASKAWA CP-9300MS (CP-9300MC compatible)

Device name		Available range for monitoring with GOT	Available range for monitoring with GT Simulator2
Bit device	Coil	OB0 to OB1023	OB0 to OMB1023
	Input relay	IB0000 to IB1023	IB0000 to IB1023
	GOT bit register	GB64 to GB1023	GB64 to GB1023
Word device	Input register	I0 to I63	——
	Holding register	M0 to M2047	——
	GOT data register	GD64 to GD1023	GD64 to GD1023
	GOT special register (GS)	GS0 to GS511	GS0 to GS511

(c) Allen-Bradley PLC
1) AB SLC500 (SLC500 series)

Device name		Available range for monitoring with GOT	Available range for monitoring with GT Simulator2
Bit device	Bit (B)	B3:0/0 to B3:255/15, B10:0/0 to B255:255/15	――
	Timer (timing bit) (TT)	T4:0/14 to T4:255/14, T4:0/TT to T4:255/TT, T10:0/14 to T255:255/14, T10:0/TT to T255:255/TT	――
	Timer (completion bit) (TN)	T4:0/13 to T4:255/13, T4:0/DN to T4:255/DN, T10:0/13 to T255:255/13, T10:0/DN to T255:255/DN	――
	Counter (up counter) (CU)	C5:0/15 to C5:255/15, C5:0/CU to C5:255/CU C10:0/15 to C255:255/15, C10:0/CU to C255:255/CU	――
	Counter (down counter) (CD)	C5:0/14 to C5:255/14, C5:0/CD to C5:255/CD C10:0/14 to C255:255/14, C10:0/CD to C255:255/CD	――
	Counter (completion bit) (CN)	C5:0/13 to C5:255/13, C5:0/DN to C255:255/DN, C10:0/13 to C255:255/13, C10:0/DN to C255:255/DN	――
	Integer (N)	N7:0 to N7:255, N10:0 to N255:255	――
	Word device bit	Designated bit of the following word devices	Specified bit of any of the following word devices
	GOT internal bit register (GB)	GB64 to GB1023	GB64 to GB1023
Word device	Bit (B)	B3:0 to B3:255	――
	Timer (set value) (TP)	T4:0.1 to T4:255.1, T4:0.PRE to T4:255.PRE, T10:0.1 to T255:255.1, T10:0.PRE to T255:255.PRE	――
	Timer (current value) (TA)	T4:0.2 to T4:255.2, T4:0.ACC to T4:255.ACC, T10:0.2 to T255:255.2, T10:0.ACC to T255:255.ACC	――
	Counter (set value) (CP)	C5:0.1 to C5:255.1, C5:0.PRE to C5:255.PRE, C10:0.1 to C255:255.1, C10:0.PRE to C255:255.PRE	――
	Counter (current value) (CA)	C5:0.2 to C5:255.2, C5:0.ACC to C5:255.ACC, C10:0.2 to C255:255.2, C10:0.ACC to C255:255.ACC	――
	Integer (N)	N7:0 to N7:255, N10:0 to N255:255	――
	GOT internal data register (GD)	GD64 to GD1023	GD64 to GD1023
	GOT special register (GS)	GS0 to GS511	GS0 to GS511

2) AB Micrologix1000/1500 series

Device name		Available range for monitoring with GOT		Available range for monitoring with GT Simulator2
		Micrologix1000 series	Micrologix1500 series	
Bit device	Bit (B)	B3:0/0 to B3:31/15	B3:0/0 to B255:255/15	――
	Timer (timing bit) (TT)	T4:0/14 to T4:39/14 T4:0/TT to T4:39/TT	T3:0/14 to T255:255/14 T3:0/TT to T255:255/TT	――
	Timer (completion bit) (TN)	T4:0/13 to T4:39/13 T4:0/DN to T4:39/DN	T3:0/13 to T255:255/13 T3:0/DN to T255:255/DN	――
	Counter (up counter) (CU)	C5:0/15 to C5:31/15 C5:0/CU to C5:31/CU	C3:0/15 to C255:255/15 C3:0/CU to C255:255/CU	――
	Counter (down counter) (CD)	C5:0/14 to C5:31/14 C5:0/CD to C5:31/CD	C3:0/14 to C255:255/14 C3:0CD to C255:255/CD	――
	Counter (completion bit) (CN)	C5:0/13 to C5:31/13 C5:0/DN to C5:31/DN	C3:0/13 to C255:255/13 C3:0/DN to T255:255/DN	――
	Integer (N)	N7:0 to N7:104	N3:0 to N255:255	――
	Word device bit	Designated bit of the following word devices	Designated bit of the following word devices	Designated bit of the following word devices
	GOT internal bit register (GB)	GB64 to GB1023	GB64 to GB1023	GD64 to GD1023
Word device	Bit (B)	B3:0 to B3:31	B3:0 to B255:255	――
	Timer (set value) (TP)	T4:0.1 to T4:39.1 T4:0.PRE to T4:39.PRE	T3:0.1 to T255:255.1 T3:0.PRE to T255:255.PRE	――
	Timer (current value) (TA)	T4:0.2 to T4:39.2 T4:0.ACC to T4:39.ACC	T3:0.2 to T255:255.2 T3:0.ACC to T255:255.ACC	――
	Counter (set value) (CP)	C5:0.1 to C5:39.1 C5:0.PRE to D5:39.PRE	C3:0.1 to C255:255.1 C3:0.PRE to C255:255.PRE	――
	Counter (current value) (CA)	C5:0.2 to C5:31.2 C5:0.ACC to C5:31.ACC	C3:0.2 to C255:255.2 C3:0.ACC to C255:255.ACC	――
	Integer (N)	N7:0 to N7:14	N3:0 to N255:255	――
	GOT internal data register (GD)	GD64 to GD1023	GD64 to GD1023	GD64 to GD1023
	GOT special register (GS)	GS0 to GS511	GS0 to GS511	GS0 to GS511

(d) SHARP JW (Sharp PLC)

Device name	Available range for monitoring with GOT	Available range for monitoring with GT Simulator2
I/O relay	0 to 15777 20000 to 75777	0 to 15777
Timer counter (contact)	T/C0000 to T/C1777	T/C0000 to T/C0377
Timer counter (current value)	T/C0000 to T/C1777 (b0000 to b3776)	T/C0000 to T/C1777 (b0000 to b3776)
Register	09000 to 09776 19000 to 19776 29000 to 29776 39000 to 39776 49000 to 49776 59000 to 59776 69000 to 69776 79000 to 79776 89000 to 89776 99000 to 99776 E0000 to E0776 E1000 to E1776 E2000 to E2776 E3000 to E3776 E4000 to E4776 E5000 to E5776 E6000 to E6776 E7000 to E7776	09000 to 09776 19000 to 19776 29000 to 29776 39000 to 39776 49000 to 49776 59000 to 59776 69000 to 69776 79000 to 79776 89000 to 89776 99000 to 99776 E0000 to E0776 E1000 to E1776 E2000 to E2776 E3000 to E3776 E4000 to E4776 E5000 to E5776 —— E7000 to E7776
File register	1000000 to 1177776 2000000 to 2177776 3000000 to 3177776 4000000 to 4177776 5000000 to 5177776 6000000 to 6177776 7000000 to 7177776	—— 2000000 to 2177776 3000000 to 3177776 4000000 to 4177776 5000000 to 5177776 6000000 to 6177776 7000000 to 7177776

(e) TOSHIBA PROSEC T/V (Toshiba PLC)

	Device name	Available range for monitoring with GOT		Available range for monitoring with GT Simulator2
		PROSEC T Series	PROSEC V Series	
Bit device	External input (X)	X0000 to X511F	——	X0000 to X511F
	External output (Y)	Y0000 to Y511F	——	Y0000 to Y511F
	Internal relay (R)	R0000 to R999F	——	R0000 to R4095F
	Data register	——	R00000 to R4095F	
	Special relay (S)	S0000 to S255F	——	——
	Special register	——	S0000 to S511F	Z0000 to Z511F
	Link register relay (Z)	Z0000 to Z999F	——	
	Link relay (L)	L0000 to L255F	——	——
	Timer (contact) (T)	T000 to T999	——	T000 to T255
	Counter (contact) (C)	C000 to C511	——	C000 to C255
	Word device bit	Designated bit of the following word devices (except timer (current value) and counter (current value))	Specified bit of any of the following word devices (Except data register (R))	Designated bit of the following word devices (except timer (current value) and counter (current value))
	GOT bit register (GB)	GB64 to GB1023	GB64 to GB1023	GB64 to GB1023
Word device	External input (X)	XW000 to XW511	——	XW000 to XW511
	External output (Y)	YW000 to YW511	——	YW000 to YW511
	Internal relay (R)	RW000 to RW999	——	RW000 to RW511
	Data register(R)	——	RW000 to RW4095	
	Special relay (S)	SW000 to SW255	SW000 to SW511	——
	Link register relay (Z)	—	——	——
	Link relay (L)	LW000 to LW255	——	——
	Timer (current value) (T)	T000 to T999	——	T000 to T255
	Counter (current value) (C)	C000 to C511	——	C000 to C255
	Data register (D)	D0000 to D8191	D0000 to D4095	D0000 to D8191
	Link register (W)	W0000 to W2047	——	W0000 to W2047
	File register (F)	F0000 to F32467	——	F0 to F8191
	Bit device word	Conversion of the above bit devices to words (except link register relay, timer (contact) and counter (contact)) GOT data register (GD)	Conversion of any of the above bit devices into word	Conversion of the above bit devices to words (except link register relay, timer (contact) and counter (contact)) GOT data register (GD)
	GOT data register (GD)	GD64 to GD1023	GD64 to GD1023	GD64 to GD1023
	GOT special register (GS)	GS0 to GS511	GS0 to GS511	GS0 to GS511

(f) SIEMENS S7-300/400 (SIEMENS PLC)

Device name		Available range for monitoring with GOT		Available range for monitoring with GT Simulator2
		SIEMENS S7-300 series	SIEMENS S7-400 Series	
Bit device	Input relay	I0000 to I1277	I0000 to I5117	I0000 to I1277
	Output relay	Q0000 to Q1277	Q0000 to Q5117	Q0000 to Q1277
	Bit memory	M0000 to M2557	M00000 to M20477	M0000 to M10237
	GOT bit register	GB64 to GB1023	GB64 to GB1023	GB64 to GB1023
Word device	Input relay	IW000 to IW126	IW000 to IW510	IW000 to IW126
	Output relay	QW000 to QW126	QW000 to QW510	QW000 to QW126
	Bit memory	MW000 to MW254	MW0000 to MW2046	MW000 to MW1022
	Timer (present value)	T000 to T127	T000 to T511	T000 to T255
	Counter (present value)	C00 to C63	C000 to C511	C00 to C255
	Data register	D000100000 to D000108190 D000200000 to D000208190 D000300000 to D000308190 • • • D012600000 to D012608190 D012700000 to D012708190	D000100000 to D000165534 D000200000 to D000265534 D000300000 to D000365534 • • • D409400000 to D409465534 D409500000 to D409565534	――
	GOT data register	GD64 to GD1023	GD64 to GD1023	GD64 to GD1023
	GOT special register (GS)	GS0 to GS511	GS0 to GS511	GS0 to GS511

(g) MEWNET Series (Matsushita Electric Works PLC)

Device name		Available range for monitoring with GOT	Available range for monitoring with GT Simulator2
Bit device	Input relay (X)	X0000 to X511F	X0000 to X511F
	Output relay (Y)	Y0000 to Y511F	Y0000 to Y511F
	Internal relay (R)	R0000 to R886F	R0000 to R511F
	Link relay (L)	L0000 to L639F	L0000 to L511F
	Special relay (R)	R9000 to R910F	R9000 to R910F
	Timer contact (T)	T0000 to T3071	T0000 to T0255
	Counter contact (C)	C0000 to C3071	C0000 to C0255
	GOT bit register (GB)	GB64 to GB1023	GB64 to GB1023
Word device	Input relay (WX)*1	WX000 to WX511	WX000 to WX511
	Output relay (WY)*1	WY0000 to WY511	WY0000 to WY511
	Internal relay (WR)*1	WR000 to WR886	WR000 to WR511
	Link relay (WL)*1	WL000 to WL639	WL000 to WL511
	Special relay (WR)*1	WR900 to WR910	WR900 to WR910
	Timer/counter (elapsed value)(EV)	EV0000 to EV3071	EV0000 to EV0255
	Counter contact (set value)(SV)	SV0000 to SV3071	――
	Data register (DT)	DT00000 to DT10239	DT00000 to DT08191
	Link register (LD)	LD0000 to LD8447	LD0000 to LD8191
	File register (FL)	FL00000 to FL32764	――
	GOT data register (GD)	GD64 to GD1023	GD64 to GD1023
	GOT special register (GS)	GS0 to GS511	GS0 to GS511

*1 Set the device number as a multiple of 16.

(h) HITACHI HIDIC H (Hitachi PLC)

Device name		Available range for monitoring with GOT	Available range for monitoring with GT Simulator2
Bit device	External input (X)	X00000 to X05A95	X00000 to X05A95
	External output (Y)	Y00000 to Y05A95	Y00000 to Y05A95
	Remote external input (X)	X10000 to X49995	——
	Remote external output (Y)	Y10000 to Y49995	——
	First CPU link (L)	L0000 to L3FFF	L0000 to L1FFF
	Second CPU link (L)	L10000 to L13FFF	——
	Data area (M)	M0000 to M3FFF	M0000 to M1FFF
	On-delay timer (TD)	TD000 to TD255	TD000 to TD255
	Single-shot timer (SS)	SS000 to SS255	——
	Watchdog timer (WDT)	WDT000 to WDT255	——
	Monostable timer (MS)	MS000 to MS255	——
	Retentive timer (TMR)	TMR000 to TMR255	——
	Up counter (CU)	CU000 to CU511	CU000 to CU511
	Ring counter (RCU)	RCU000 to RCU511	——
	Up/down counter (CT)	CT000 to CT511	——
	Bit internal output (R)	R000 to R7BF	——
	DIF (leading edge detection)	DIF000 to DIF511	——
	DFN (trailing edge detection)	DFN000 to DFN511	——
	GOT bit register	GB64 to GB1023	GB64 to GB1023
Word device	External input (WX)	WX0000 to WX05A7	——
	External output (WY)	WY0000 to WY05A7	——
	Remote external input (WX)	WX1000 to WX4997	——
	Remote external output (WY)	WY1000 to WY4997	——
	First CPU link (WL)	WL000 to WL3FF	WL0 to WL1FF
	Second CPU link (WL)	WL1000 to WL13FF	——
	Data area (WM)	WM000 to WM3FF	WM0 to WM1FF
	Timer/counter (elapsed value)(TC)	TC000 to TC511	TC000 to TC255
	Word internal output (WR)	WR000 to WR3FF	WR000 to WR3FF
	GOT data register	GD64 to GD1023	GD64 to GD1023
	GOT special register (GS)	GS0 toGS511	GS0 toGS511

MEMO

Chapter 4 SCREEN CONFIGURATION OF GT SIMULATOR2

4.1 Screen Configuration and Various Tools of GT Simulator2

This section describes configuration and various tools of GT Simulator2.

Title bar

Menu bar

Tool bar

Monitor
Screen
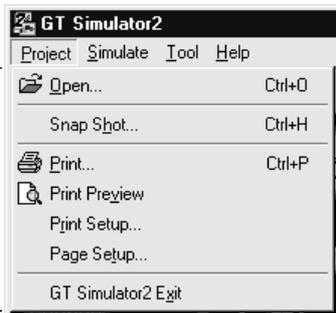
Dropdown menu

∗1 For the explanations of the title bar, menu bar and drop-down menu, refer to the
GT Designer2 Version1 Operating Manual.

(1) Tool bar

Items allocated on the menu bar are displayed in buttons.
Move the cursor to the tool button and click it. The function starts.

1)   2)   3)   4)   5)

Tool button names

Number	Name	Description
1)	Open	Opens the project data created on GT Designer2.
2)	Start	Starts simulation.
3)	Stop	Ends simulation.
4)	Device Monitor	Starts the device monitor function.
5)	Option	Sets the option functions.

4.2 Menu Configuration

This section lists and describes the commands assigned to the menu bar.

Project — Open・・・・・・・・・・・・・・ Chooses the project data created on GT Designer2 and reads the monitor data.

Snap Shot ・・・・・・・・・・ Saves the monitor data being simulated into any file in BMP format.

Print ・・・・・・・・・・・・・・ Prints the monitor data being simulated.

Print Preview・・・・・・・・・ Shows the printing image.

Print Setup ・・・・・・・・・・ Sets the printer.

Page Setup・・・・・・・・・・・ Sets the page.

GT Simulator2 Exit ・・・・・・ Exits from GT Simulator2.

Simulate — Start ・・・・・・・・・・・・・・ Starts simulation on GT Simulator2.

Stop ・・・・・・・・・・・・・・ Exits from GT Simulator2.

Option ・・・・・・・・・・・・・ Sets simulated GOT type, connection method, etc.

Tool — Start/End of Device Monitor・ Starts/Ends the device monitor function.

Help — Contents ・・・・・・・・・・・ Refers to the online manual.

About GT Simulator2・・・・・ Shows the software version of GT Simulator2 installed.

MELFANSweb・・・・・・・・・ Connects to MELFANSweb.

Chapter 5 GT SIMULATOR2 OPERATING METHOD

5.1 Simulation Procedure Outline

This section shows a rough procedure for operating GT Simulator2.

(1)   When connecting GT Simulator2 and GX Simulator

```
                    ┌─────────────────────────┐
                    │          Start          │
                    └─────────────────────────┘
                                 │
      ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┼ ─ ─ ─ ─ ─ ┐  Only when using GX Developer
      │             ┌────────────┴────────────┐│
      │             │   Start GX Developer. *1 ││
      │             └────────────┬────────────┘│
      │             ┌────────────┴────────────┐│
      │  Start GX Simulator from GX Developer. *1│
      │             └────────────┬────────────┘│
      └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┼ ─ ─ ─ ─ ─ ┘
                    ┌────────────┴────────────┐
                    │    Start GT Simulator2  │
                    └────────────┬────────────┘
```

Do you use GT Simulator2 for the first time? (Is project unread?) — No →

Do you change option setting? — No →

Yes ↓

Make GT Simulator2 option setting. (Refer to Section 5.2)

Make GT Simulator2 option setting. (Refer to Section 5.2)

Do you change the project to be simulated? — No →

Start simulation on GT Simulator2. (Refer to Section 5.3)

Yes

Open the project created on GT Designer2 (refer to Section 5.4).

Perform debugging on GT Simulator2 (refer to Section 5.5).
The device value of simulated monitor data should be checked and changed with the device monitor function (Refer to Chapter 7).

Exit from GT Simulator2 (refer to Section 5.6).

*1 Refer to the GX Developer and GX Simulator Operating Manuals (Start up Manual) for the way to start GX Developer and GX Simulator.

*2 When GX Developer is not used, GX Simulator is automatically started at the time of simulation execution on GT Simulator2.

(2)   When connecting GT Simulator2 and PLC CPU

```
┌─────────────────────────────────┐
│              Start              │
└─────────────────────────────────┘
                │
┌─────────────────────────────────┐
│ Connect the personal computer and│
│            PLC CPU.             │
└─────────────────────────────────┘
                │
┌─────────────────────────────────┐
│  When using GX Developer, start  │
│        GX Developer. *1          │
└─────────────────────────────────┘
                │
┌─────────────────────────────────┐
│        Start GT Simulator2.     │
└─────────────────────────────────┘
                │
           ◇ Do you use GT ◇──── No ────┐
         Simulator2 for the first time?  │
           (Is project unread?)          │
                │                ┌─────────────────────────────────┐
               Yes               │ Make GT Simulator2 option setting.*2│
                │                │      (Refer to Section 5.2)      │
                │                └─────────────────────────────────┘
                │                          │
                │                    ◇ Do you change ◇──── No ────┐
                │                  the project to be simulated?    │
                │                          │                       │
┌─────────────────────────┐               Yes                      │
│  Make GT Simulator2 option│             │                        │
│ setting.*2 (Refer to Section 5.2)│◀──────┘                        │
└─────────────────────────┘                                        │
                │                                                   │
┌─────────────────────────┐            ┌─────────────────────────┐ │
│    Power on the PLC CPU. │            │   Power on the PLC CPU. │ │
└─────────────────────────┘            └─────────────────────────┘ │
                │                                    │              │
┌─────────────────────────┐            ┌─────────────────────────┐ │
│   Open the project created on│        │ Start simulation on GT Simulator2.│
│  GT Designer2 (refer to Section 5.4).│ │      (Refer to Section 5.3)      │
└─────────────────────────┘            └─────────────────────────┘
                │◀──────────────────────────────────┘
┌──────────────────────────────────────────────────────────────────┐
│ Perform debugging on GT Simulator2 (refer to Section 5.5).         │
│ The device value of simulated monitor data should be checked and changed with the device monitor│
│  function (Refer to Chapter 7).                                    │
└──────────────────────────────────────────────────────────────────┘
                │
┌─────────────────────────┐
│     Exit from GT Simulator2│
│    (refer to Section 5.6). │
└─────────────────────────┘
```

*1 Refer to the GX Developer or GX Simulator Operating Manual (Start up Manual) for the way to start GX Developer.

*2 The connection method in Option setting returns to GX Simulator when you exit from GT Simulator2.
Every time you connect GT Simulator2 to the PLC CPU, choose [CPU] in the connection method of Option setting.

5.2 Option Setting

In Option setting, set the GOT type to be simulated on GT Simulator2, GT Simulator2 connection method, used sequence program and others.

> POINT
>
> • When changing option setting before start of simulation on GT Simulator2, you must exit from GT Simulator2 once.
> Make option setting before startling simulation.
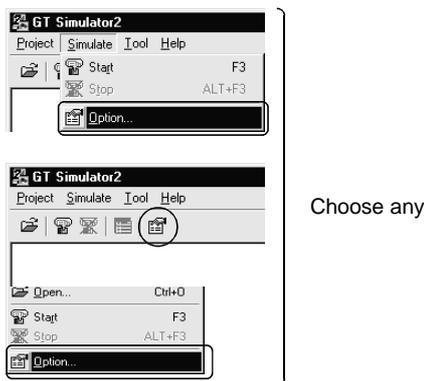
1) When making option setting, choose any of the following.
   • "Simulate" - "Option"
   • "Option" on toolbar
   • "Option" by right-clicking the mouse

Choose any
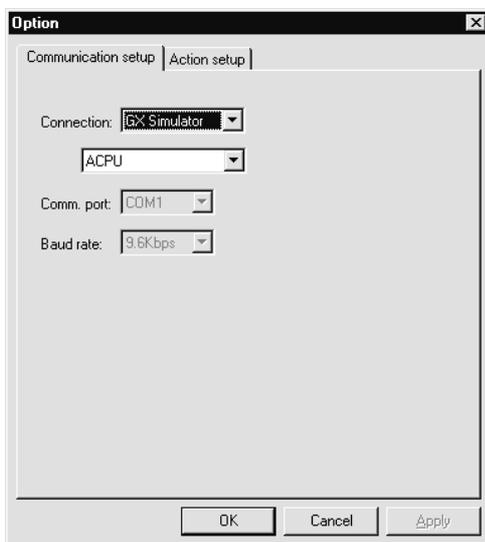
2) As the Option setting dialog box appears, make settings. (Refer to Section 5.2.1.)
   After setting, press ⌑ Apply ⌑ to update the information.
   Clicking the ⌑ OK ⌑ button closes the dialog box.

5.2.1 Description of the option setting dialog box

Number	Item	Description
1)	Connection *	"GX Simulator" : Simulation is performed using GX Simulator installed in the personal computer. "CPU" : Simulation is performed with GT Simulator2 actually connected with the PLC. (Defaults to "GX Simulator".)
2)	───	Choose the type of the PLC CPU connected. "ACPU" : Choose when making connection with the ACPU. "QnACPU, MELDAS C6*" : Choose when making connection with the QnACPU or MELDAS C6/C64. "QCPU" : Choose when making connection with the QCPU (Q mode). "QCPU-A" : Choose when making connection with the QCPU (A mode). "FX" : Choose when making connection with the FXCPU.
3)	Comm port	When you selected "CPU" in the connection method, choose the communication port on the personal computer side. "COM1", "COM2", "COM3", "COM4", "COM5", "COM6" (Defaults to "COM1".)
4)	Baud rate	When you selected "CPU" in the connection method, set the transmission speed to/from the CPU. When "ACPU" or "FX" was selected : Defaults to "9.6kbps". When "QnACPU, MELDAS C6*" was selected : Defaults to "19.2kbps". When "QCPU" or "QCPU-A" was selected : Defaults to "19.2kbps". For connection with the FXCPU, select the baud rate supported by the connected FXCPU. When the set baud rate is not supported, communication is made at 9.6kbps. For connection with the MELDAS C6/C64, set the baud rate to "19.2Kbps".
5)	GOT type	Choose the type of the GOT to be simulated. "GOT-A950" : Simulation is performed as A950GOT (320 x 240 dots) "GOT-A956W" : Simulation is performed as A956WGOT (480 x 234 dots) "GOT-A960" : Simulation is performed as A960GOT (640 x 400 dots) "GOT-A97*" : Simulation is performed as A97*GOT (640 x 480 dots) "GOT-A985" : Simulation is performed as A985GOT (-V) (800 x 600 dots) "SoftGOT" : Simulation is performed as GT SoftGOT2. (Defaults to "GOT-A97*".)
6)	Resolution	If "SoftGOT" is selected for GOT type, select (Resolution: dot) for screen size. If another GOT is selected, the resolution is fixed. "640 x 480", "800 x 600", "1024 x 768", "1280 x 1024" (Default is "640 x 480")
7)	Print data	If "SoftGOT" is selected for GOT type, select the data format for data saved in the "Memcard" folder by the alarm history function or other functions. "Text file" : Data is saved as a Text file. "Resolution CSV file" : Data is saved as a CSV file (Default is "Text file")
8)	Delete recipe file after reading data	Turn on this check box to delete the recipe data in the MemCard folder after monitor data reading.
9)	GX Developer project	Set the sequence program to be used. Default : Simulation is performed with the sequence program having only the END instruction. Fixed : Set any sequence program. Click the [Browse] button and choose the GX Developer project.
10)	OK	Used to update the settings and close the dialog box.
11)	Cancel	Used to cancel the settings and close the dialog box.
12)	Apply	Used to update the settings.

＊ Connection returns to "GX Simulator" when you exit from GT Simulator2.

Every time you connect GT Simulator2 to the PLC CPU, choose [CPU] in the connection method of Option setting.

5.3 Execution of simulation
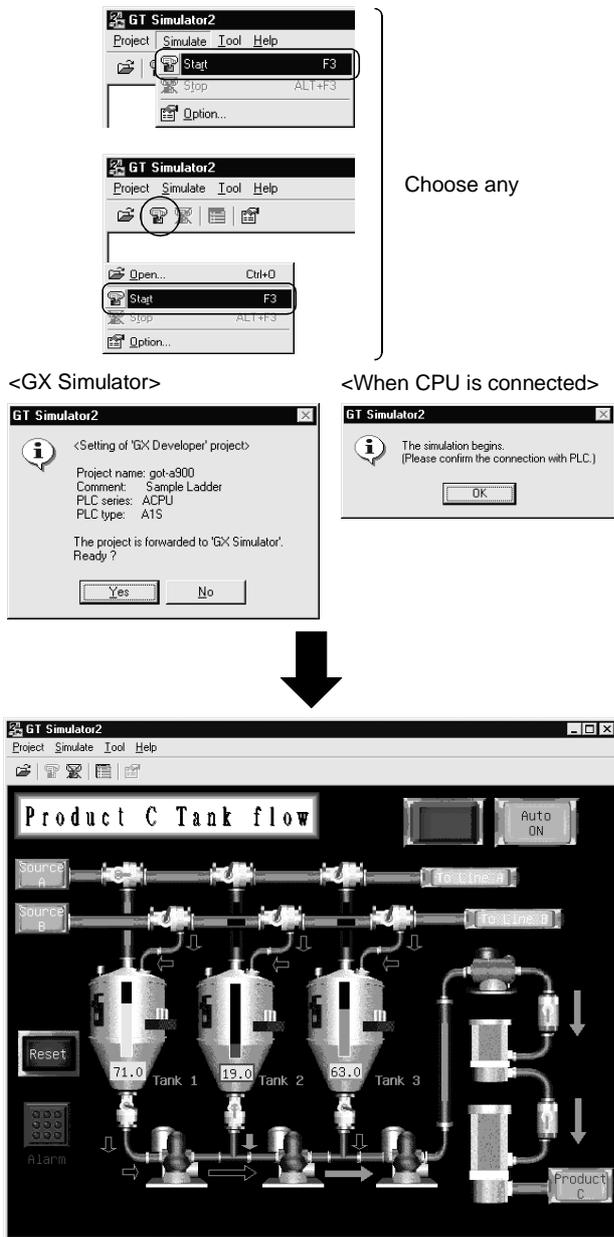
Choose any

1) To start simulation, choose any of the following.
   • "Simulate" - "Start"
   • "Start of Simulation" on toolbar
   • "Start" by right-clicking the mouse

<GX Simulator>   <When CPU is connected>

2) The left dialog box appears.
   The message displayed changes with the
   connection method in Option setting.
   Choose [Yes] or [OK] to transfer data.

3) Simulation of the project simulated previously
   starts.

```
POINT
```
• When simulation is performed for the first time on GT Simulator2, choosing "Start"
  causes GT Simulator2 to show the utility screen.
  In this case, choose "Open" (refer to Section 5.4) and read the monitor data to
  start simulation.
  For details of the utility function, refer to the GOT-A900 Series Operating Manual
  (GT Works2 Version1/GT Designer2 Version1 compatible Extended • Option
  Functions Manual)

5.4 Opening the Project
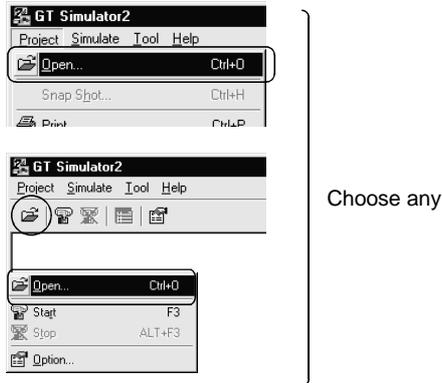
1) To open a project, choose any of the following.
   • "Project" - "Open"
   • "Open" on toolbar
   • "Open" by right-clicking the mouse

Choose any
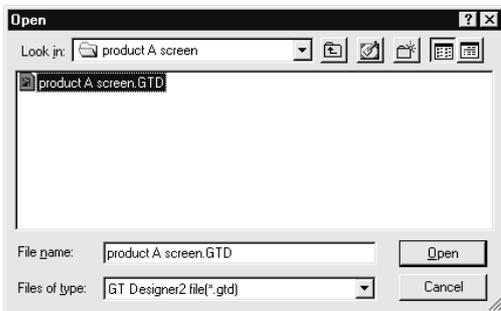
2) Choose the project where the monitor data created on GT Designer or GT Designer2 is stored.
   When you made correction to the project, always save it on GT Designer2 before opening the project.

<GX Simulator>   <When CPU is connected>
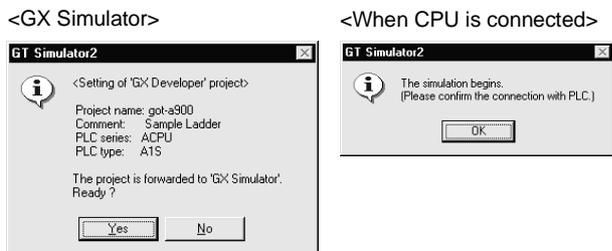
3) The left dialog box appears.
   The message displayed changes with the connection method in Option setting.
   Choose ⬚ Yes ⬚ or ⬚ OK ⬚ to transfer data.
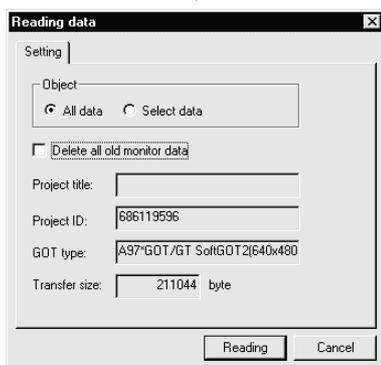
4) As the "Reading data" dialog box appears, make settings. (Refer to Section 6.4.1)
   Choosing [Reading] reads the monitor data of the selected project.

5.4.1 Description of the monitor data reading dialog box

Number	Item	Description

1)	Object	"All data"
		  Check when reading all monitor data of the selected project.
		"Select data"
		  Check when reading some monitor data of the selected project.

2)	Delete all old monitor data	Turn on the check box when reading the monitor data of the selected project after deletion of the already read monitor data.
3)	Project title Project ID GOT type Trans size	The settings and data size of the monitor data to be read appear.

4)	"Base"
	"Window"
	"Others"
	Tab
		Turn on the read data check boxes when you chose "Select data" in Object.
		"Base"/"Window" tab
		  Turn on the screen number and screen title check boxes of the screen to be read.
		"Others" tab
		  Turn on the read data (part data, comment, common settings, high-quality font, sound WAVE) check boxes.
		  Common settings are always read.

5)	Reading	Used to read the monitor data of the selected project.
6)	Cancel	Used to cancel reading the monitor data of the selected project.

5.5 Simulating Operation

On GT Simulator2, touching the touch keys is performed by pressing the mouse button.
As the input validity range of the touch key is narrower than that of the actual GOT, securely touch the touch key.
Touching is indicated by "beep".
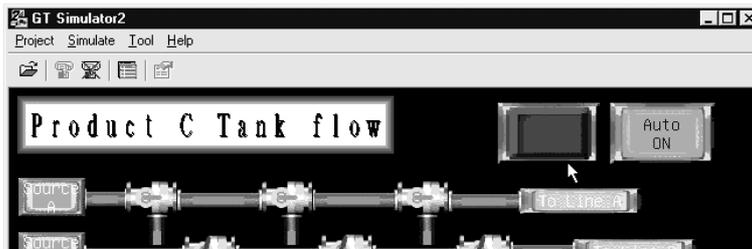
POINT

• When the sound card is fitted, the sound set in "Default sound" after choosing "Control Panel"-"Sounds" beeps on Windows[®] 98, Windows[®] Me.

• The debugging example using the sample screen data packed with GT Works Version 5/GT Designer Version 5 is given in the appendix.

5.6 Exiting from GT Simulator2
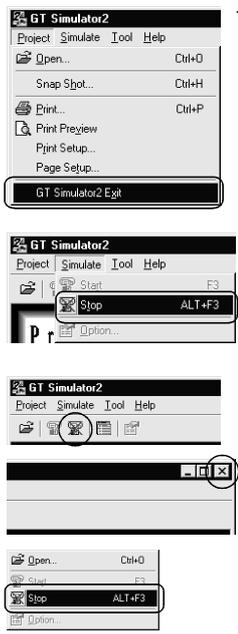
Choose any

1)   To exit from GT Simulator2, choose any of the
following.
- "Project" - "GT Simulator2 Exit"
- "Simulate" - "Stop"
- "Stop" on toolbar
- "Close" in system menu
- "Stop" by right-clicking the mouse
When the device monitor function is being used,
exit GT Simulator2 after closing the device
monitor function.
Refer to Section 7.4 for How to Operate the
Device Monitor Function.

Chapter 6 FUNCTIONS OF GT SIMULATOR2

6.1 Snap Shot Function

The snap shot function allows a screen image being simulated on GT Simulator2 to be saved into any folder as a BMP format file.

6.1.1 Operating procedure

1) Choose "Project" - "Snap Shot" during GT Simulator2 simulation.
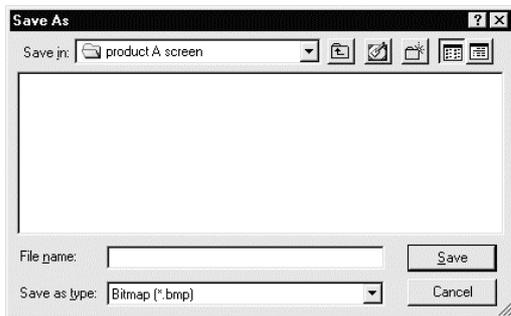
2) Choose the folder which will save the data. After setting the file name, press │ Save │ to save the screen image of GT Simulator2 in BMP format.

6

6.2 Print Function

The print function allows a screen image being simulated on GT Simulator2 to be output to a printer.

6.2.1 Operating procedure

1) Choosing "Project" - "Print" during GT Simulator2 simulation starts printing.
Note that printing cannot be done if the printer is not specified.

6.2.2 Print preview

Selecting Print preview shows a printing image.

6.2.3 Page setup

Selecting Page setup shows the following dialog box.
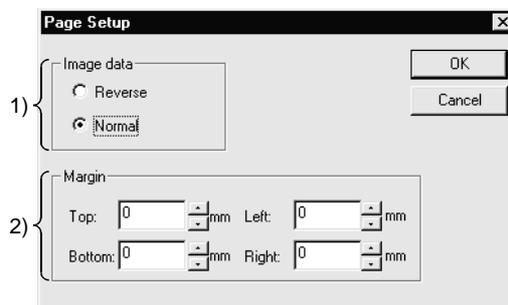
Number	Item	Description
1)	Image data	Choose "Reverse" to print the screen in reverse video. (Defaults to "Normal".)
2)	Margin	Set the margins on a page to be printed. When margins have been set, the screen to be printed is reduced according to the specified values. The reduction image of the screen can also be checked in Print preview.

6

Chapter 7 DEVICE MONITOR FUNCTIONS

7.1 Overview

This section deals with the device monitor function usable on GT Simulator2.
The device monitor function allows you to check and change the device values of the monitor screen data simulated on GT Simulator2.
You can perform efficient debugging since you can change device values with the device monitor function and check indication changes on GT Simulator2.
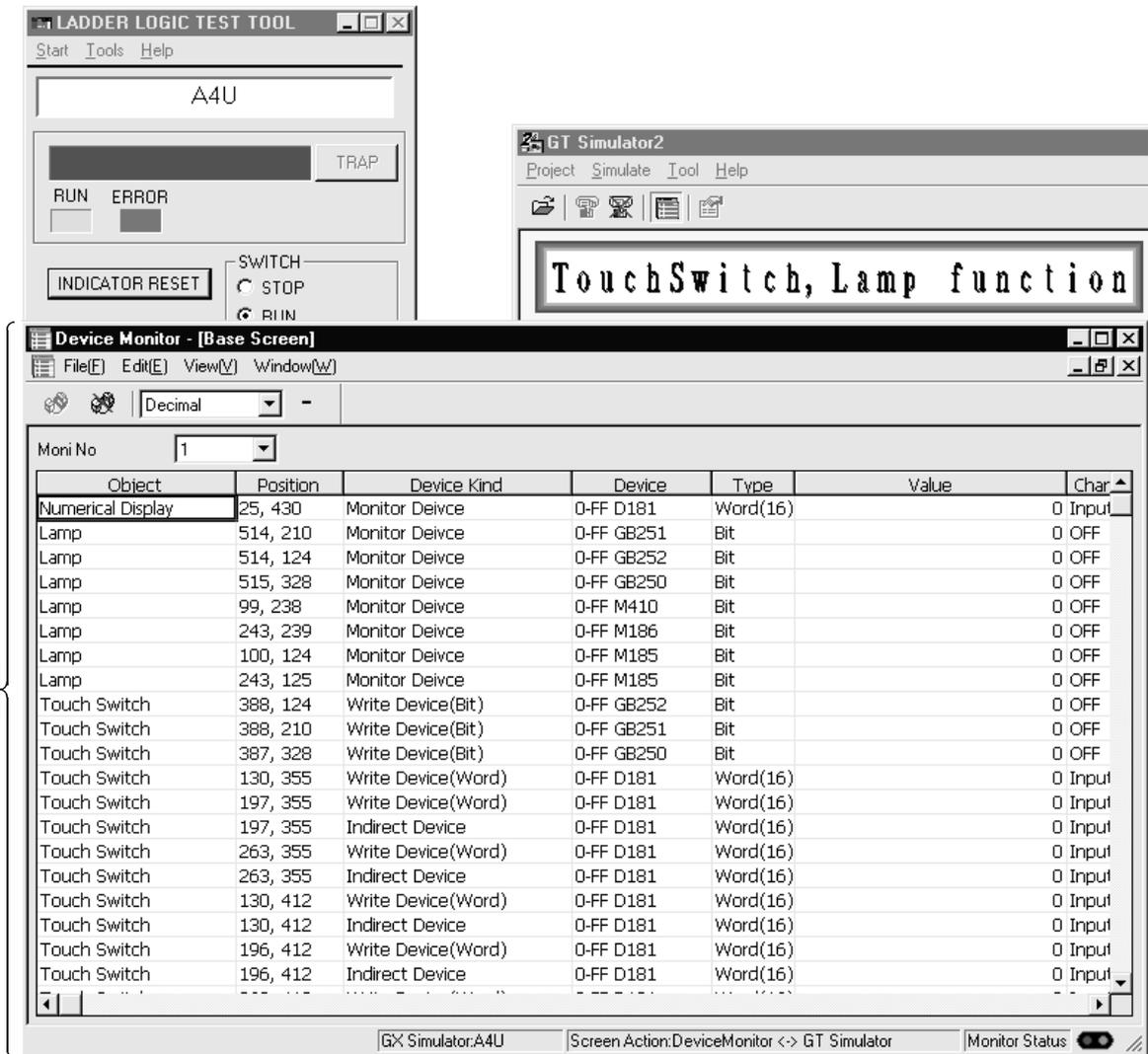
7.2 Restrictions on and Instructions for use of Device Monitor

This section explains the restrictions on and instructions for use of the device monitor function.

When using the device monitor function, also take into consideration the restrictions on and instructions for use of GT Simulator2.

Refer to Section 3.3 for the restrictions on and instructions for use of GT Simulator2.

(1) Instructions for use of device monitor function

• You cannot start multiple device monitor functions.

• Device monitor function shows the device list by the screen.
  For the device value GT Simulator2 does not show on the screen, set the device on "free registration screen" and refer the device value.

• The device set on the called function will not be shown when screen call function is used.
  For the device value on the called function, set the device on "free registration screen" and refer the device value.

• The monitored device cannot be switched by using station switching function, when the GT Simulator2 is directly connected with CPU. (Each device set with GT Designer2 will be monitored).
  For the monitored device, set the device on "free registration screen" and refer the device value.

(2) Instructions for use of GX Simulator

In regard to the devices out of the GX Simulator's support, the values are not shown

(3) Instructions for third party PLC monitoring (when GX Simulator is connected)

In regard to the devices out of the range, the values are not shown.
 (Refer to Section 3.4 for the device ranges that can be monitored.)

7

7.3 Screen Configuration of Device Monitor

7.3.1 Screen Configuration and Various Tools of Device Monitor

This section describes configuration and various tools of device monitor function.
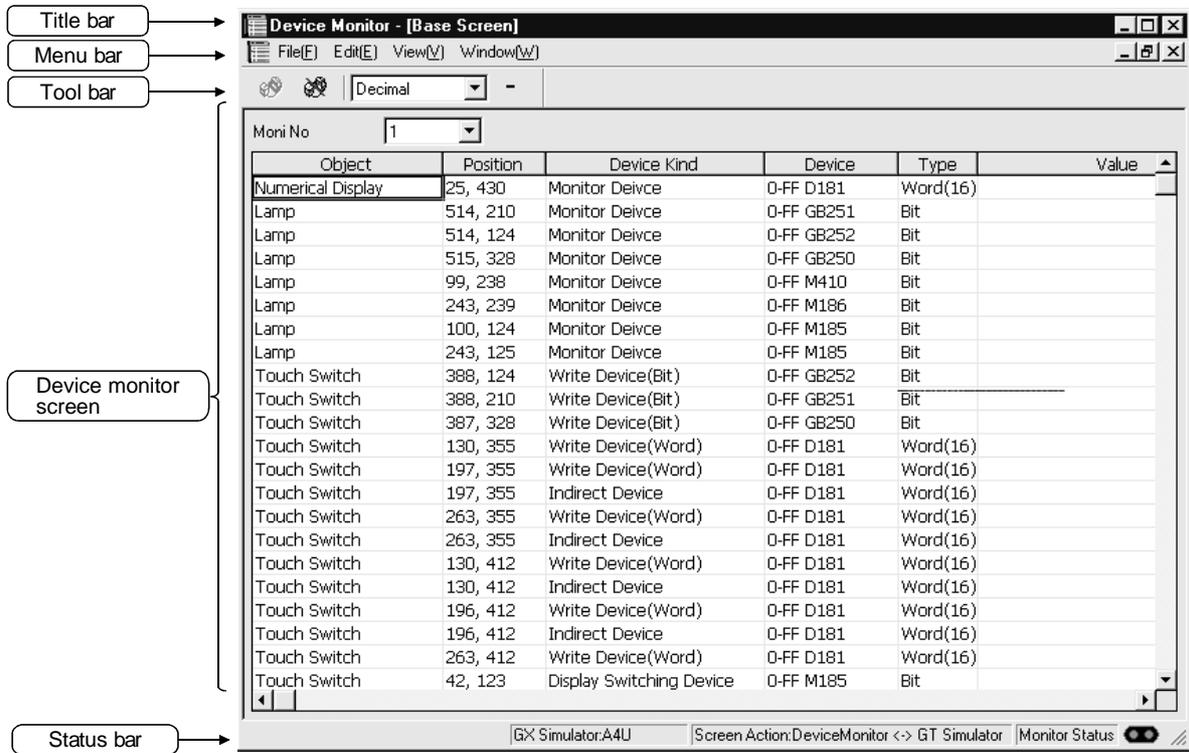
(1)   Tool bar
The toolbar buttons are described below.
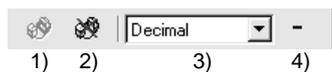
Number	Name	Description
1)	Start	Starts device monitoring.
2)	Stop	Stops device monitoring.
3)	Change	Choose the device value display format in the list box.
4)	Sign	Make selection when handling the device value as a signed BIN value. (You can make selection only when "Decimal" is chosen in 3)).

(2)   Status bar

The status bar will be described below.

Stop Monitor PLC	GX Simulator:A4U	Screen Action:DeviceMonitor <-> GT Simulator	Monitor Status ⬤⬤
1)	2)	3)	4)

Number	Description
1)	Gives a brief description of any tool button or menu item at the mouse cursor.
2)	Shows the CPU type currently connected.
3)	Shows the current Monitor Mode Setting＊.
	Device Monitor <-> GT Simulator2
	Changing either of the Device Monitor screen and GT Simulator2 screen also changes the other.
	Device Monitor -> GT Simulator2
	Changing the Device Monitor screen changes the GT Simulator2 screen. If you change the GT Simulator2 screen, the Device Monitor screen does not change.
	GT Simulator2 -> Device Monitor
	Changing the GT Simulator2 screen changes the Device Monitor screen. If you change the Device Monitor screen, the GT Simulator2 screen does not change.
	Device Monitor ->< - GT Simulator2
	Changing either of the Device Monitor screen and GT Simulator2 screen does not change the other.
4)	Indicates the monitor status with the lamps.
	Lamps flickering : Indicates that devices are being monitored.
	Both lamps are lit green : Monitor is at a stop.

＊ Refer to Section 7.6 for the way to make Monitor Mode Setting.

POINT

You can make selection to display or hide the toolbar and status bar.

Choosing "View" - "Toolbar" or "Status bar" on the menu bar displays or hides the toolbar or status bar.

  Checked   : The toolbar/status bar is displayed.

  Unchecked : The toolbar/status bar is hidden.

(3)   Device monitor screen
(a)   Device monitor screen types
The device monitor screen is available in four types.
They are different in display data and items.
1)   Base Screen
Displays the object information on the base screen.

Shows the device states and
others of the objects set on
the base screen.

2)   Window screen
Shows the object information in the overlap window (1, 2) or
superimpose window.
The window screens for the overlap window (1, 2) and superimpose
window are displayed separately.

Shows the device states and
others of the objects set on
the window screen.

3)   Common screen
Displays the functions set in Common of GT Designer2.
Since device values are not set to some functions, such functions are
not displayed for the device monitor function if their settings have been
made in Common.

Shows the device states and
others of the functions set
in Common.

4)   Free Registration screen
You can register any devices and enter or change device values.
Since you can register all devices (including GOT's internal devices),
you can register devices not set in the monitor screen data and enter
or change their values.
Refer to Section 7.5.3 for device registration.

You can register devices not
set in monitor screen data

(b)   Items displayed on Device Monitor screen
The items displayed on the Device Monitor screen will be described below.
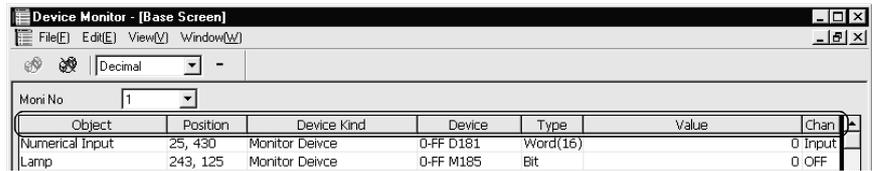
1)   Object
Shows the preset object names.

(Display example)

Object
Numerical Input
Lamp
Lamp
Lamp
Lamp
Lamp
Touch Switch
Touch Switch

2)   Position
Displays the displayed object positions
(coordinates).

(Display example)

Position
25, 430
243, 125
100, 124
243, 239
99, 238
515, 328
514, 124
514, 210

3)   Device Kind
Shows the device types.

(Display example)

Device Kind
Monitor Deivce
Monitor Deivce
Monitor Deivce
Monitor Deivce
Monitor Deivce
Monitor Deivce
Write Device(Bit)
Display Switching Device

4)   Device
Shows the devices set for the objects.
The devices are represented as on GT Designer2.

(Display example)

Device
0-FF D181
0-FF M185
0-FF M185
0-FF M186
0-FF M410
0-FF GB250
0-FF GB252

5)   Type
Shows the used device types.
When bit device is used   : Bit
When word device (16 bit) is used : Word (16)
When word device (32 bit) is used : Word (32)

(Display example)

Type
Word(16)
Word(16)
Bit
Bit
Bit
Bit
Bit
Bit

6)   Value

Shows the device values as indicated below
according to their formats and display systems.

(Display example)

Value

20
512
1
0
0
0
0

Device Format	Display Range	Device Number Representation
Bit	0, 1	Binary/octal/decimal/hexadecimal indication, 1 digit
Word (16)	0 to 1111111111111111	Binary indication, 16 digits
	0 to 177777	Octal indication, 6 digits
	0 to 65535	Unsigned decimal indication, 5 digits
	-32768 to 32767	Signed decimal indication, 6 digits
	0 to FFFF	Hexadecimal indication, 4 digits
Word (32)	0 to 111 • • • • • • • • 111	Binary indication, 32 digits
	0 to 377777777777	Octal indication, 12 digits
	0 to 4294967295	Unsigned decimal indication, 10 digits
	-2147483648 to 2147483647	Signed decimal indication, 11 digits
	0 to FFFFFFFF	Hexadecimal indication, 8 digits

7)   Function

Shows the Common names set on GT Designer2.

(Display example)

Function

Switching Screen/Switchin
Switching Screen/Switchin

7.3.2 Menu Configuration

This section lists and describes the commands assigned to the menu bar.

File ——— Exit Device Monitor .... Terminates the device monitor function.

Edit ——— Regist Device .... Registers any devices on the Free Registration screen.
          — Delete Device .... Deletes registered devices.
          — Delete All Device .... Deletes all registered devices.

View ——— Monitor ——— Connect .... Starts device monitoring.
          | └─ Disconnect .... Stops device monitoring.
          — Toolbar .... Displays/hides the toolbar.
          — Statusbar.. Displays/hides the status bar.
          └ Configure.. Sets the device monitor function.

Window —— Cascade .... Shows the displayed Device Monitor screens one over another.
          — Horizontal .... Shows the displayed Device Monitor screens horizontally.
          — Vertical .... Shows the displayed Device Monitor screens vertically.
          — Base .... Selects the base screen or shows it at the forefront.
          — Overlap1 .... Selects the overlap window 1 screen or shows it at the forefront.
          — Overlap2 .... Selects the overlap window 2 screen or shows it at the forefront.
          — Super Inpose................................... Selects the superimpose window 1 screen or shows it at the forefront.
          — Common .... Selects the Common screen or shows it at the forefront.
          └ Free Regist..................................... Selects the Free Registration screen or shows it at the forefront.

7.4 How to Operate the Device Monitor Function

The following is the operation procedure from starting the device monitor function until terminating it.
This section provides the operation procedure.
Refer to Section 7.5 for the functions that can be used with the device monitor function.

Choose any

1) While GT Simulator2 is simulating, choose either of the following to start the device monitor function.
    • "Tool" - "Start of Device Monitor"
    • "Device Monitor" on toolbar
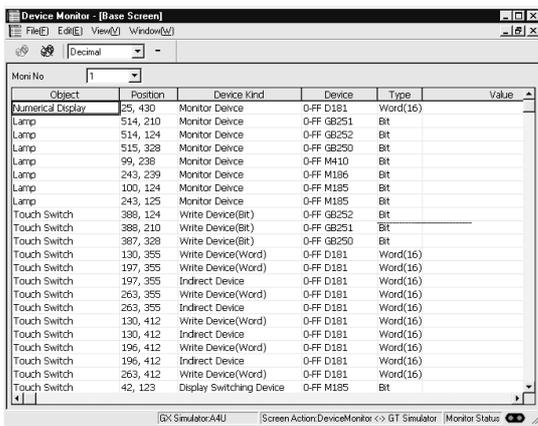
2) After making selection in 1), the device monitor function starts.

    The device monitor function may be started only when GT Simulator2 is simulating the monitor screen data.
    If GT Simulator2 is not executing simulation, you cannot use the device monitor function.

(To the following page)
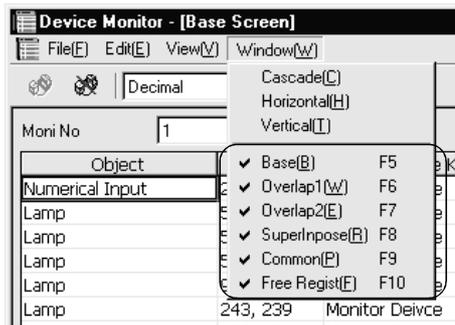
3) At a start, the device monitor function displays the base screen 1.

    When you want to show another screen, choose "Window" on the toolbar of the device monitor screen and select the screen you want to display.

    When the selected Device Monitor screen has already been displayed, it is shown at the forefront.

    All Device Monitor screens can be displayed together.
    Refer to Section 7.5.4 for the way to display all screens together.

(From the previous page)

[Only when base or window screen is displayed]
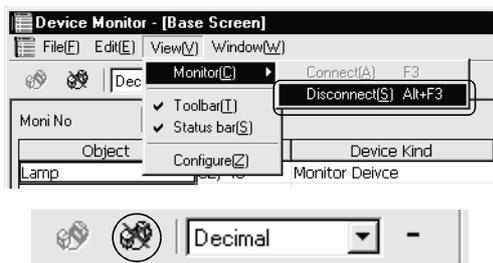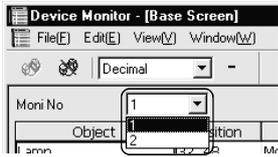
4) When the base or window screen is displayed, choosing "Moni No" at top of the screen enables you to select the base screen number to be displayed or whether to display/hide the window screen.

Choose any

5) When you want to stop monitor, choose either of the following.
   • "View" - "Monitor" - "Disconnect" on the Device Monitor function menu bar
   • Stop tool button

   If monitor is stopped, the device monitor function is not terminated.

Choose any

6) When you want to restart monitor, choose either of the following.
   • "View" - "Monitor" - "Connect" on the Device Monitor function menu bar
   • Start tool button

Choose any

7) To terminate the device monitor function, choose either of the following.
   • "File" - "Exit Device Monitor" on the Device Monitor function menu bar
   • "Tool" - "End of Device Monitor" on the GT Simulator2 menu bar
   • "Device Monitor" on the GT Simulator2 toolbar
   • "Close" in system menu

   Terminate the device monitor function before exiting from GT Simulator2.
   (If you exited from GT Simulator2 before terminating the device monitor function, click the "OK" button in the dialog box displayed on the device monitor function. If the dialog box is hidden and invisible, perform operation after moving away the overlapping window screen.)

7.5 Device Monitoring Functions

This section describes the device monitoring functions.

7.5.1 Sort function

This function allows the data displayed by the device monitor function to be arranged in ascending or descending order of ASCII codes or numerical value.
By default, the column data on the left of the corresponding screen are displayed in ascending order of ASCII codes or numerical value.
In regard to the free registration screen, the devices are showed in the order in which they were entered.

Click this part.
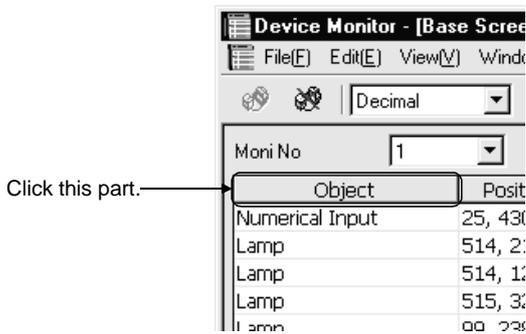
1) Clicking the title section of the corresponding column rearranges the column data in descending order of ASCII codes or numerical value.
Clicking the same column again rearranges the data in ascending order.

After that, click the column to alternate between the ascending order and descending order.

> POINT
> • You can set the display order of the "Object" column data freely. Refer to Section 7.6.2 for details.
> • You cannot rearrange the "Chan" column data.

7.5.2 Device value edit function

With this function, you can enter or change a device value.
You can check how the indication of the entered or changed device value changes on GT Simulator2.

(1) Values that may be entered or changed
The values that may be entered or changed are governed by the device types and device value display formats.
The values that may be entered or changed are indicated below.

Item	Device Value Display Format			
	Binary	Octal	Decimal	Hexadecimal
Bit device	0, 1			
Word device (16), (32)	0, 1	0 to 7	0 to 9	0 to 9, A to F

(2)   Entering or changing method
How to enter or change a device value is given below.

(a)   When editing a bit device

Click this part.
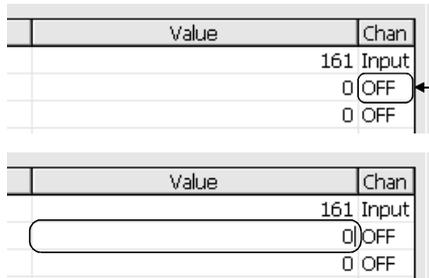
• When entering a value with the mouse
  Clicking "ON" or "OFF" in the column whose
  value will be changed highlights the indication.

• When entering a value from the personal
  computer keyboard
  Choose the "Value" item and enter a value from
  the keyboard.
  Pressing the Enter key determines the entered
  value.

(b)   When editing a word device

Click this part.
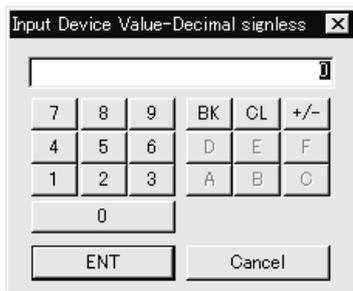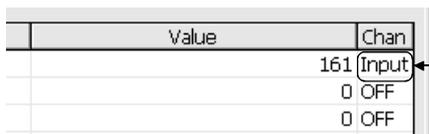
• When entering a value with the mouse
  Clicking "Input" in the column whose value will
  be changed shows the Input Device Value
  dialog box. Enter or change a device value.

0 to 9, A to F	: Enter a device value.
+/-	: Clicking here after device value entry changes the positive indication into negative. Clicking here again returns the indication too positive.
BK	: Erases one character before the cursor.
CL	: Erases all the value entered.
ENT	: Determines (registers) the entered value and closes the dialog box.
Cancel	: Closes the dialog box without the entered value being registered.
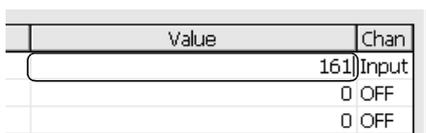
• When entering a value from the personal
  computer keyboard
  Choose the "Value" item and enter a value from
  the keyboard.
  Pressing the Enter key determines the entered
  value.

7.5.3 Device registration function

You can register any device on the Free Registration screen and enter or change a device value.

By entering or changing a value after registering a device not set in the monitor screen data, you can make an operation check after the change.

(1)   How to register a device

Choose any
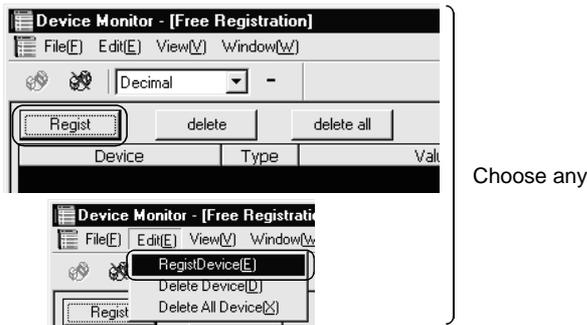
1)   After displaying the Free Registration screen, choose either of the following.

- Regist button on the Free Registration screen
- "Edit" - "Regist Device" on the menu bar
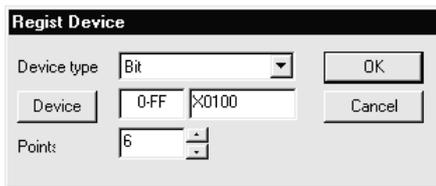
2)   As the Regist Device dialog box appears, set the corresponding items and click the OK button.

- Device type : Set the device type to be registered.
- Device   : Set the device.
  The device setting method is the same as on GT Designer2.
- Point   : Consecutive devices corresponding to the number set in "Point" are registered, relative to the value set in "Device".
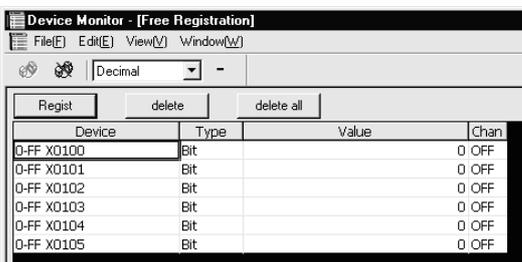
3)   The devices are registered.

POINT
- The devices are displayed from top to bottom in registration order.
- Since the registered devices are saved when GT Simulator2 is terminated, they are also displayed at a next start.
- If the CPU type connected at a next start is changed after device registration, the registered devices are deleted.
  When you do not want to delete the registered devices, do not change the CPU type.

(2)   How to delete the registered devices
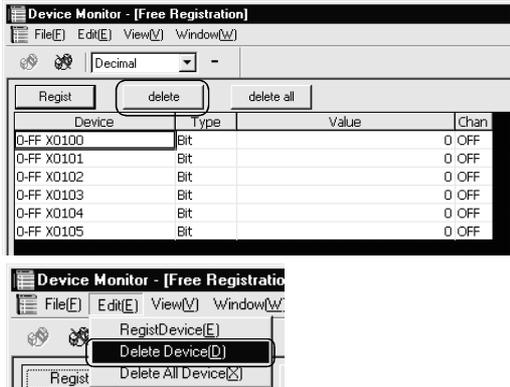
1) After choosing the row you want to delete,
   select either of the following.
   • delete button on the Free Registration
     screen
   • "Edit" - "Delete Device" on the Device
     Monitor function toolbar

   Choosing the delete all button or "Edit" -
   "Delete All Device" on the toolbar deletes all
   devices registered on the Free Registration
   screen.

7.5.4 Function to display all Device Monitor screens together

You can display all device monitor screens together.
You can make selection from among "Cascade", "Horizontal" and "Vertical".

Cascade   Horizontal   Vertical
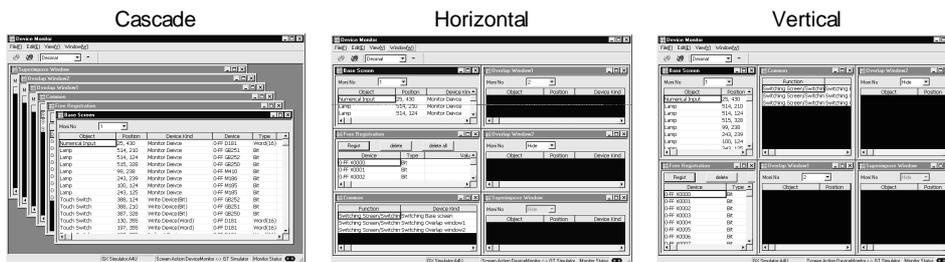
The following is how to display all screens together.
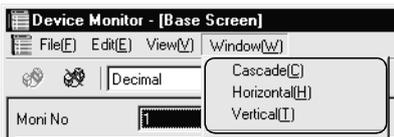
1) Choose "Window" -
   "Cascade/Horizontal/Vertical" on the Device
   Monitor function menu bar.

   After making selection, the Device Monitor
   screens appear in the chosen arrangement.

7.6 Various Settings

In the device monitor function setting dialog box, you can make the following settings.
- Set the display order of Object column data on the Device Monitor screen.
- Set the display order of displayed column data on the Device Monitor screen.
- Choose the pattern to switch between the Device Monitor screen and GT Simulator2 screen.
- Choose whether the internal device (GD, GB, GS) states will be saved or not at termination of GT Simulator2.

7.6.1 How to display the setting dialog box

The way to display the setting dialog box is described below.
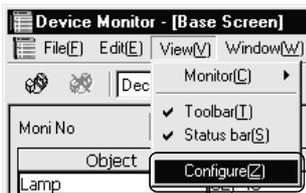
1) Choose "View" - "Configure" on the Device Monitor menu bar.
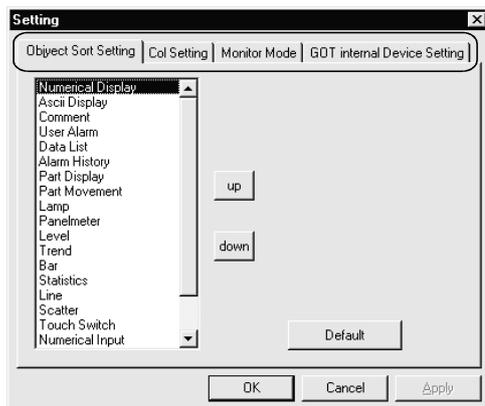
2) As the setting dialog box appears, choose the tab you want to set.

7.6.2 Settings and setting methods

(1)   Object Sort Setting

You can set the display order of the "Object" column data shown on base or window screen.
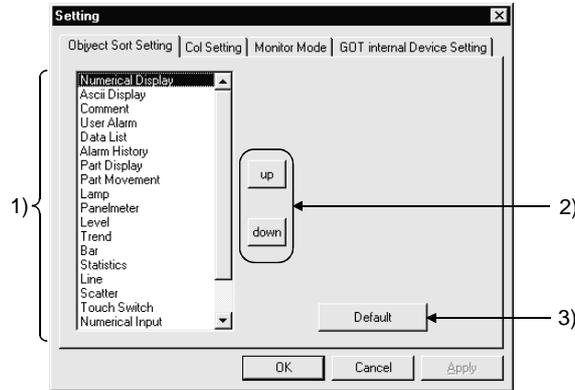
No.	Item	Description
1)	Object item	Choose the object item you want to move.
2)	Up, down	Used to move the object selected in the object item.
3)	Default	Used to select the standard (default) setting of the object item display order.

(2)   Col Setting

You can set the displayed column data order on the base, window or common screen.
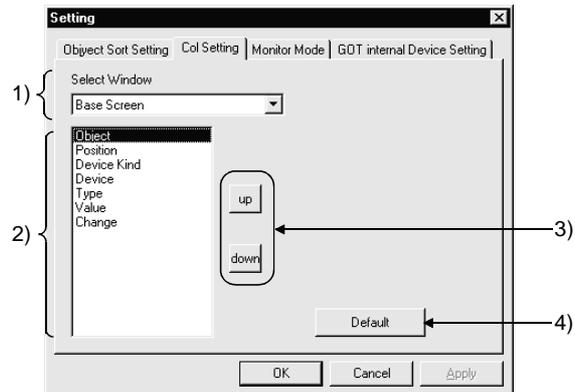
No.	Item	Description
1)	Select Window	Choose the Device Monitor screen where you want to change the displayed column data order. (The default is the base screen.)
2)	Displayed column item	Choose the displayed column item you want to move.
3)	Up, down	Used to move the object selected in the displayed column item.
4)	Default	Used to select the standard (default) setting of the displayed column item display order.

(3)   Monitor Mode
You can set the pattern to switch between the Device Monitor screen and GT Simulator2 monitor screen.
By setting the switching pattern, you can also disable the Device Monitor screen and GT Simulator2 monitor screen from being synchronized.

No.	Item	Description

1)	Monitor Mode Setting	Choose the screen switching pattern.
		(The default is device monitor <-> GT Simulator2.)
		Device Monitor <-> GT Simulator2
		  Changing either of the Device Monitor screen and GT Simulator2 screen also changes the other.
		Device Monitor -> GT Simulator2
		  Changing the Device Monitor screen changes the GT Simulator2 screen.
		  If you change the GT Simulator2 screen, the Device Monitor screen does not change.
		GT Simulator2 -> Device Monitor
		  Changing the GT Simulator2 screen changes the Device Monitor screen.
		  If you change the Device Monitor screen, the GT Simulator2 screen does not change.
		Device Monitor ->-<- GT Simulator2
		  Changing either of the Device Monitor screen and GT Simulator2 screen does not change the other.

> **POINT**
>
> Monitor Mode Setting is made to set only switching between the Device Monitor function and GT Simulator2 screens.
> Any changes, such as entry and change of device values, are reflected on the Device Monitor function and GT Simulator2.
> When you do not want to reflect device value changes, stop communication and enter and/or change device values. (Refer to Section 7.4.)

(4)   GOT internal Device Setting
When exiting from GT Simulator2, you can save the internal device (GD, GB, GS) states and display the saved states at the time of next monitoring.

No.	Item	Description
1)	Keep Values	Check this check box to save the internal device values at monitor stop or end, and display the saved internal device values at the time of next monitoring. (Default is the checked check box.)

Chapter 8 TROUBLESHOOTING

The following table indicates the error messages displayed during use of GT Simulator2, their definitions and causes, and corrective actions.

(1) Error messages displayed when GT Simulator2 is used

Number	Error message	Definition and cause	Corrective action
1	'GX Simulator' is not installed.	• GX Simulator was not installed. • GX Simulator was not installed properly.	Install GX Simulator.
2	The version of installed 'GX Simulator' is illegal.	Old version of GX Simulator was installed.	
3	Project path of 'GX Developer' cannot acquired.	• Registry information on the project path of GX Developer is corrupted. • Incompatible CPU type was specified.	In Option setting, set the project of GX Developer again.
		GT Simulator2 was not installed properly.	After uninstalling GT Simulator2, reinstall it.
4	PLC type of 'GT Simulator2' setting and 'GX Developer' setting is different.	CPU type setting has contradiction.	Change the CPU type of the GX Developer project.
5	Failed in the start of Shared memory server.	• You exited from GT Simulator2, GX Simulator and/or GX Developer in unauthorized status last time. • Unauthorized process is operating.	• After restarting the personal computer, restart GT Simulator2. • Reinstall the update versions of GT Simulator2, GX Simulator and/or GX Developer.
6	Failed in the initialization of 'GX Simulator'.	GX Simulator may have not been installed properly.	After uninstalling GT Simulator2, reinstall it. Reinstall the update versions of GT Simulator2, GX Simulator and/or GX Developer.
7	Installation path of 'GT Simulator2' cannot be acquired.	GT Simulator2 may have not been installed properly.	After uninstalling GT Simulator2, reinstall it.
8	Parameter file is not found.	GT Simulator2 may have not been installed properly.	
		Unauthorized GX Developer project may have been set.	Set the GX Developer project which has no errors.
9	Program file is not found.	GT Simulator2 may have not been installed properly.	After uninstalling GT Simulator2, reinstall it.
		GX Simulator may have not been installed properly.	Set the GX Developer project which has no errors.
10	Insufficient memory to staring 'GX Simulator'.	Dynamic memory cannot be secured.	Secure memory space. • Close unnecessary applications. • Check free hard disk space.
11	An illegal project of 'GX Developer' is selected. Project cannot be forwarded to 'GX Simulator'.	Unauthorized program exists in the GX Developer project folder.	Reexamine the GX Developer project.
12	Unsupport PLC type is selected.	CPU type setting of GT Simulator2 is the unsupported CPU type.	Change the CPU type and restart monitoring.
13	Failed in the initialization of 'GX Simulator'. <ES:＊＊＊＊> ＊＊＊＊＊＊＊＊＊＊＊＊error (32 different messages in all)	• You exited from GT Simulator2, GX Simulator and/or GX Developer in unauthorized status last time. • Unauthorized process is operating.	• Restart GT Simulator2. • After restarting the personal computer, restart GT Simulator2.
14	There is no response from 'GX Simulator' for terminarion request. 'GX Simulator' is canceled. Please end 'GT Simulator2		

8

Number	Error message	Definition and cause	Corrective action
15	An illegal project of 'GX Developer' is selected.	Project specified in "GX Developer project" in Option setting is unauthorized.	Specify the correct GX Developer project.
16	GOT type of the project is not correct.	GOT type of the read project is other than the GOT-A900 series (GOT-F900 series).	Change the GOT type of the project created on GT Designer or GT Designer2 to the GOT-A900 series.
17	PLC type of the project is different from setting 'GT Simulator2'.	PLC type of the read project is different from the setting on GT Simulator2.	Make correction so that the PLC type of the project created on GT Designer or GT Designer2 is the same as the CPU type of GT Simulator2.
18	Cannot access the project file.	Access to the specified project file could not be made.	Check the access right of the project file (e.g. a9gotp.got).
19	Failed in reading. Please retry after checking the following. • Data size and number of the data. • Capacity of free disk. • Please close Dialogue if it is displayed. • Waiting for 'Offline mode'. Please wait at several seconds. • File access privilege of the project file. • Project file is illegal or destroyed.	Screen data size is too large.	Check the screen data size. (Refer to Section 3.1.)
		Hard disk is short of free space.	Increase the free space of hard disk to more than 100M bytes.
		Since the message such as "This function can't be used now." is displayed on the screen, read cannot be performed.	After choosing "OK" in the dialog box to erase the on-screen message, perform read again.
		Waiting for the end processing of the script function. (Waiting for offline mode)	After the message "Off-Line processing execution" appears on the screen, perform read again.
		Access to the project file cannot be made.	Check the access right of the project file (e.g. a9gotp.got).
		Project setting is illegal (no script file, script grammatical error)	• Check whether a script file exists in the script setting. • Check for any grammatical error in the script.
		The project file is not the one for the GOT. The project file is corrupted.	Use a correct project file or normal project file.
20	Failed in initialize for reading. Please retry after checking the following. • Capacity of free disk. • File access privilege of the project file. • Project file is illegal or destroyed.	Hard disk is short of free space.	Increase the free space of hard disk to more than 100M bytes.
		Access to the project file cannot be made.	Check the access right of the project file (e.g. a9gotp.got).
		Project setting is illegal (no script file, script grammatical error)	• Check whether a script file exists in the script setting. • Check for any grammatical error in the script.
		The project file is not the one for the GOT. The project file is corrupted.	Use a correct project file or normal project file.
21	Fall to delete reclpe files. • Please close reclpe file if it is opened. • Check the file access privilege.	After screen data reading, recipe file deletion failed.	• If there is a recipe file opened by another software, close that file. • Check the file access right.
22	The simulation cannot be ended. Please retry after shutting Dialogue on the simulation screen	Since the message such as "This function can't be used now." is displayed on the screen, you cannot exit from GT Simulator2 properly.	After choosing "OK" in the dialog box to erase the on-screen message, exit from GT Simulator2 again.
		There is the other internal cause than the above that does not allow you to exit from the software.	After choosing "OK" in the dialog box, wait for some time and exit from GT Simulator2 again.
23	Please do logoff/the termination of Windows after ending 'GT Simulator2'.	Logoff/exit processing of Windows was executed before exiting from GT Simulator2.	After exiting from GT Simulator2, execute logoff/exit processing of Windows.

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Number	Error message	Definition and cause	Corrective action
24	This function can't be used now.	You selected the function unusable with GT Simulator2.	Press "OK".
25	check communication	Cable is disconnected. Cable is open.	Check the cable.
		Communication port setting mistake	Check the communication port in Option setting on GT Simulator2.
		Transmission speed (baudrate) is incorrect.	Check the transmission speed (baudrate) of the CPU.
		Connection target PLC differs from the PLC type of the project.	Check the connection target PLC.
26	Communication error occurred. • Retry : Communication begins again. • Cancel : Communication is interrupted. Please reexecute 'GT Simulator2', if simulate agin.	Cable is disconnected. Cable is open.	After checking for the left causes, choose the button in the displayed dialog box. "Retry" Restarts communication. "Cancel" After Cancel is selected, all communications will not be made. When performing simulation, restart GT Simulator2.
		Communication port setting mistake	
		Transmission speed (baudrate) is incorrect.	
		Connection target PLC differs from the PLC type of the project.	
27	This operationg enviranment is unapplicable for 'GT Simulator2'.	Access could not be made to the file necessary to operate GT Simulator2.	• Check whether you logged on to Windows$^®$ XP Professional or Windows$^®$ XP Home Edition as the user who has the attributes of the administrator (for computer management). • Check whether "user's easy switching function" of Windows$^®$ XP Professional or Windows$^®$ XP Home Edition is being used or not.
		• Last time, GT Simulator2 was exited in an illegal status. • Illegal process is operating.	After restarting the personal computer, restart GT Simulator2.

(2) Error messages displayed when device monitor function is used

Error message	Definition and cause	Corrective action
Already exist Device Monitor	The device monitor function has already started.	Check the taskbar and choose the device monitor function which has already started. From Task Manager or the like, terminate the hidden device monitor function and restart the function.
Device Monitor files not exists!	The installation file for device monitor function has been deleted.	After uninstalling GT Simulator2, reinstall it.
Fail application setting	The environment setting file for device monitor function has been corrupted.	
Monitoring Error	Communication initialization failed.	Occurrence of a communication error at a monitor start will put execution in a standby status.
Cannot read Data files Try to read data on GT Simulator2	GT Simulator2 does not read monitor screen data.	After using GT Simulator2 to read the monitor screen data, run the device monitor.
Invalid string for device	The data input for device registration is not correct.	Check the device representation characters, device number and bit position entered and register the device.
Invalid Net Work or Station No.	The network input data is not correct.	Check the value which can be set for the network and enter that value.
□□ is over □□..□□	The input value is outside the range.	Enter the value in accordance with the message instruction.
□□ is invalid value	The input device number has an illegal format or is outside the range.	Enter the device number in a correct format. Enter the value within the range.
Invalid Device Number!	The input device number is an odd number.	Enter an even number as the device number.
In Multiples of 16 for Word of Bit Device	When the word was specified for the bit, the device number entered is not a multiple of 16.	Enter the value as a multiple of 16.
In Multiples of 16 plus 1 for Word of Bit Device	When the word is specified for the entry of the bit device for Yasukawa GL, the device number entered is not a multiple of 16 plus 1.	Enter the value as a multiple of 16 plus 1.
Over registered count	The number of freely registered items is more than 65535.	Delete the already registered free registration items and reregister what you want to register.
Value is over range	The input device number is outside the range.	Enter the number within the range.
memory is not enough	Shared memory creation failed.	Secure enough memory, start GT Simulator2, and use device monitor.

APPENDICES

Appendix 1 Examples of using GT Simulator2

The sample monitor data supplied by GT Designer2 is used to explain how to use GT Simulator2 specifically.
As GT Simulator2, GX Developer and GT Designer2 are used in these examples, install these software programs into the personal computer.
Refer to the following manuals for the ways to install and start the software.

Software	Manual name
GT Simulator2	GT Works2 Version1/GT Designer2 Version1
GT Designer2	Operating Manual (Start up • Introductory Manual)
GX Simulator	GX Simulator Operating Manual (Start up Manual)

Appendix 1.1 Simulating the sample monitor data

Use the following procedure to perform simulation on GT Simulator2 using the GOT900 series sample monitor data contained in GT Designer2.
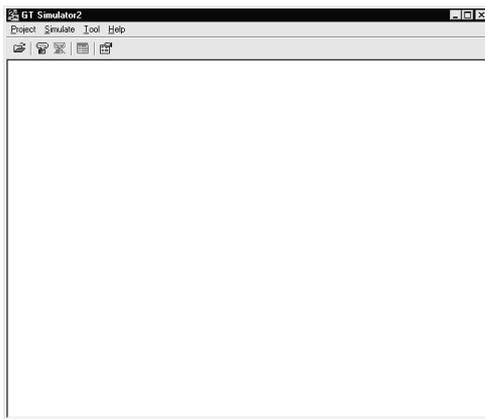
1) Start GT Simulator2.
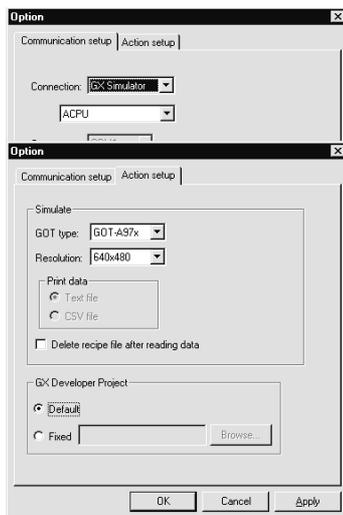
2) Set the options of GT Simulator2. (Refer to Section 5.2.)
   Make the following settings in the option setting dialog box.

   "Connection"   : GX Simulator
                              : ACPU

   Simulate
   "GOT type"   : GOT-A97∗
   GX Developer Project : Default

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Open dialog box:

Look in: 01 Touchswitch, Lamp

01 TouchSwitch,Lamp function.GTD

File name: 01 TouchSwitch,Lamp function.GTD

Files of type: GT Designer2 file(*.gtd)
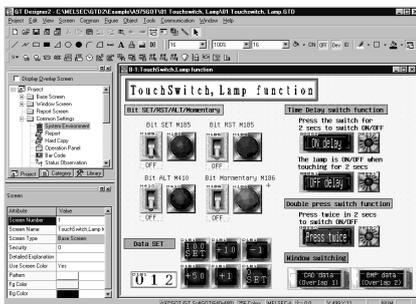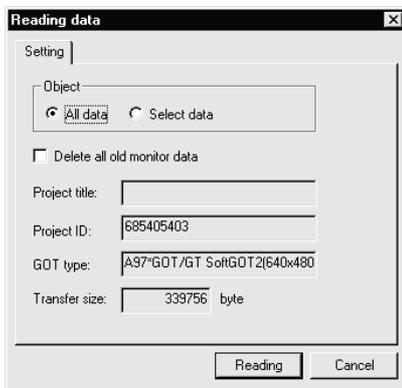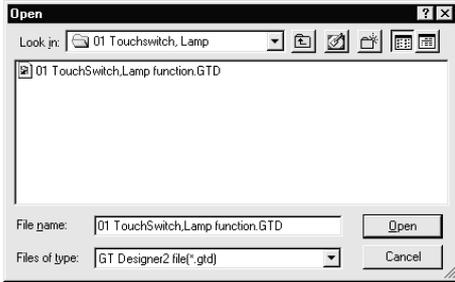
3) Choose Open (refer to Section 5.4) to open the GOT900 series sample monitor data.
The folder which includes the sample monitor data is
"C:¥Melsec¥GTD2¥Example¥a975got¥Touchswitch • Lamp".

Reading data dialog box:

Setting

Object
- All data
- Select data

☐ Delete all old monitor data

Project title:

Project ID: 685405403

GOT type: A97*GOT/GT SoftGOT2(640x480

Transfer size: 339756 byte

Reading   Cancel

4) Make the following setting in the monitor data reading dialog box.

"Object": All data

5) After completion of reading, the GOT900 series sample monitor data appears and simulation starts.

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7) Press the ON delay switch of the Time Delay switch function.
For the ON delay switch, holding down the mouse button for 2 seconds lights up its lamp.

8) After making sure that the lamp is lit, exit from GT Simulator2.

POINT

Starting the Device Monitor function during simulation on GT Simulator2 allows you to check or change device values in the simulated monitor screen data. Refer to Chapter 7 for details of the Device Monitor function.
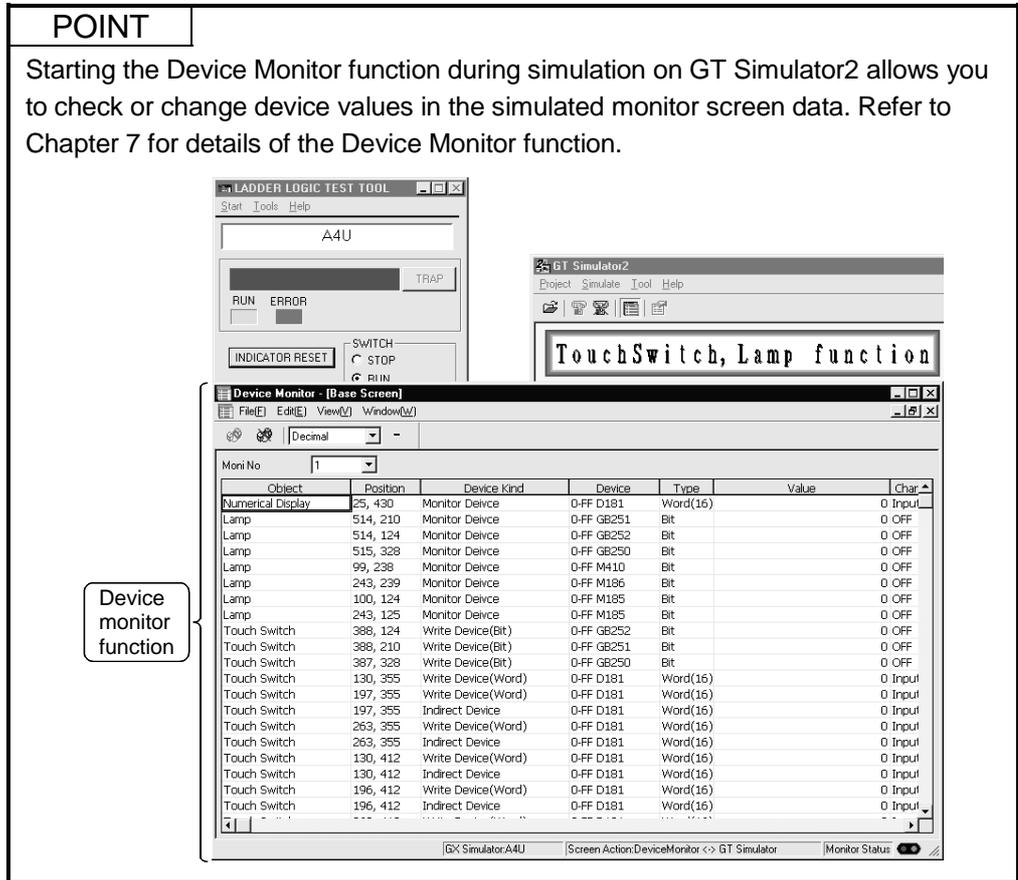
Appendix 1.2 Making correction to the sample monitor data on GT Designer2

Make correction to the sample monitor data which was processed in Appendix 1.1 so that the following operation is performed.

1) Holding down the ON delay switch for 5 seconds lights up the lamp.

Use the following procedure to make correction on GT Designer2 to the sample monitor data simulated on GT Simulator2.

When correcting the sample monitor data, copy the data beforehand or choose "Save as" after correction to save it in the other folder.
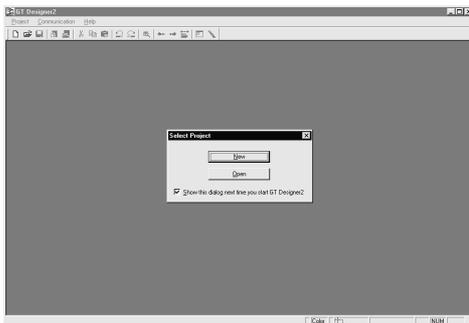
1) Start GT Designer2.
   As the project selection dialog box appears, click "Open".
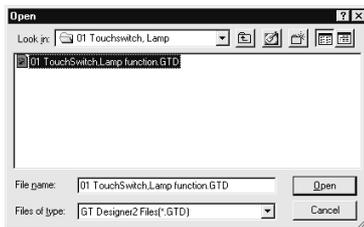
2) The GOT900 series sample screen opens.
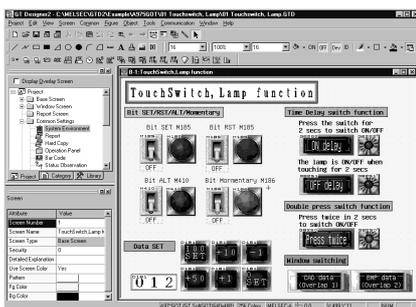
3) When the sample screen data appears, double-click the ON delay switch to open the Multi Action switch dialog box.

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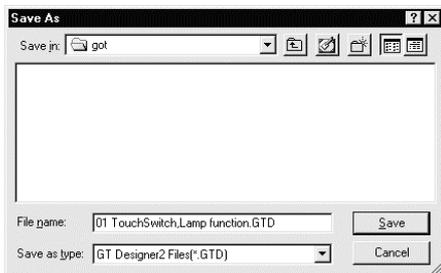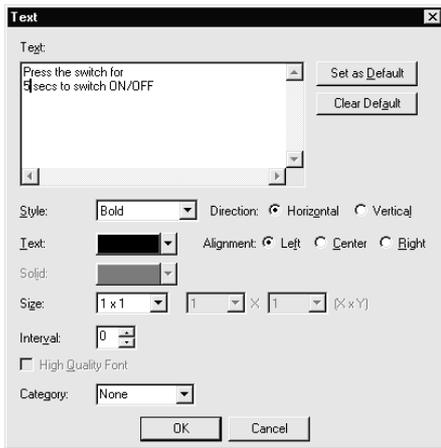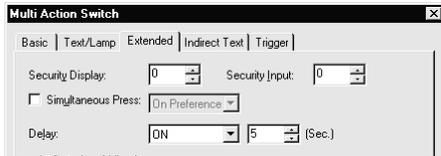
4) Choose the option setting tab and change the delay to 5 (seconds).
   After changing, close the touch key setting dialog box.

5) Double-click the text figure "Press the switch for 2 secs to switch ON/OFF" and change the text to " Press the switch for 5 secs to switch ON/OFF ".
   After changing, close the text figure setting dialog box.

6) Save the corrected monitor data in the other folder.

POINT

• When you have changed the GOT type or PLC type on GT Designer2, always back up the project.
  Also, when you have made correction to the screen data, back up the data as far as possible.

Appendix 1.3 Simulating the sample monitor data corrected on GT Designer2

The sample monitor data corrected on GT Designer2 is simulated on GT Simulator2 again.
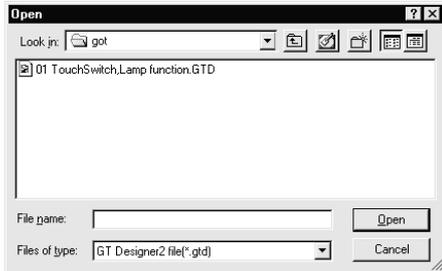
1) After starting GT Simulator2, choose Open and read the corrected sample monitor data.

2) After completion of reading, press the ON delay switch.

3) As changed on GT Designer2, the lamp is lit in 5 seconds.
   After confirming that operation is performed as changed, exit from GT Simulator2.

Appendix 2 Applicable monitor data

Make sure to use the same or newer version of GT Simulator2 than that of GT Designer2 used to create the monitor data.
When the older version is used, some problems may occur such as file is not able to be opened and/or some functions/settings are invalid.

GT Simulator2 version   GT Designer2 version
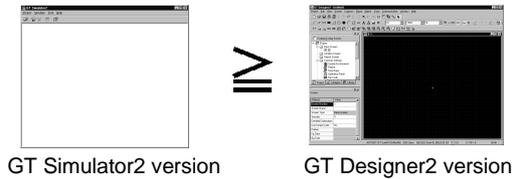
GT Simulator2 can open the monitor data created using GT Designer, irrespective of the software version.

<Monitor data compatibility>

The following table shows the compatibility between software versions.

Software used to open monitor data	Software used to create monitor data	
	GT Designer2	GT Designer
GT Simulator2	△	○
GT Simulator	×	△

○: Compatible.

△: When opening the monitor data by older software version, some functions/settings are invalid.

×: GT Simulator cannot open the GT Designer2 format files.
Use GT Simulator2.

Appendix 3 Comparison of Functions between GT Simulator2 Version1 Edition 18U and GT
            Simulator Version5 Edition 29F

(1) GT Simulator2 is not compatible with Windows® 95.

(2) GT Simulator2 can read files of GT Designer2 format.

(3) GT Simulator2 is compatible with Windows® XP Professional and Windows® XP
     Home Edition.

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GT Simulator2 Version1

Operating Manual

MODEL	SW1-GTSIM2-O-E
MODEL CODE	1DM209
SH(NA)-080399E-E(0410)MEE	

MITSUBISHI ELECTRIC CORPORATION

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