

## CONTROL TECHNOLOGY CORPORATION GTWIN 2.8 Quick Start

# MGT Panel & GTWIN Quick Start Guide

CONTROL TECHNOLOGY CORPORATION

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### Preface

This document will guide you through the installation and programming of CTC Mini Graphic Touchpanels (MGTs). When space and cost are at a premium, look to CTC's MGT series for the answer. These mini touchpanels are easily installed into very small spaces. They connect to CTC automation controllers over a standard serial cable — much easier than wiring up an operator pushbutton / display box. And because the touchpanel is programmable, it is much more flexible and offers the operator a greater range of display information. All of the MGT panels offer both graphic and text displays that can be oriented in either a vertical or horizontal position.

The MGT0 and MGT1 offer bright high resolution displays with the ability to select three different programmable LED backlight colors (red, orange, green). The background lighting can also be set to flash. For example, you might use green for normal operation, orange for set-up, red for alert, and flashing-red for warning.

The MGT2 and MGT3 offer larger full color displays that improve the operator experience, especially in applications where more complex information needs to be entered or displayed.

#### **Key Features:**

- Incredibly small package
- Low Cost
- Easy connection to CTC controllers
- IP65 Sealing
- Fixed and TrueType fonts
- Multi-language support
- Pre-built libraries of display and data entry widgets such as buttons, lights, switches, read outs, etc.
- User designed graphics
- Scrolling messages
- Charting functions
- Recipe functions
- Alarm Manager (not available on the MGT0)

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# CHAPTER

### **Overview**

Introduction



The MGT Panels use a Modbus protocol and are compatible with all of the Control Technology Blue Fusion controllers.

This document is a step-by-step guide to building your first GTWIN program. It will take you through connecting to the Blue Fusion controller, and creating and downloading a simple program to the MGT.

The appendix includes some basic information on some of the more advanced features of the MGT panels.

Refer to the online help in GTWIN software for more in-depth information to supplement this document.

# CHAPTER

### **MGT Panels**

#### MGT PANEL PART NUMBERS





MODEL NO.	NAME	DESCRIPTION
MGT0-1030	Mini Touchpanel 3" (3-color)	Graphic display 128 x 64 resolution, 3-color LED backlight, small 4.3 x 2.8 x 1.1" 24VDC, RS- 232
MGT1-1040	Mini Touchpanel 4" (3-color)	Graphic display 240 x 96 resolution, 3-color LED backlight, small 5.7 x 2.8 x 1.2" 24VDC, RS- 232
MGT2-1050	Mini Touchpanel 5" (256-color)	Graphic display 320 x 240 resolution, white LED backlight, small 5.6 x 4.4 x 1.3" 24VDC, RS- 232
MGT3-2050	Mini Touchpanel 6" (4096color)	Graphic display 320 x 240 TFT, SD card, USB program port, small 6.4 x 5.1 x 1.6" 24VDC, RS-232

#### MGT MODEL SPECIFICATIONS

MODEL	MGT0-1030	MGT1-1040	MGT2-1050	MGT3-2060
	Shown with optional grey bezel			
Screen type	3-color	3-color	256-color	4096-color
Resolution	128 x 64	240 x 96	320 x 240	320 x 240
Displayable characters	72	216	768	768
Backlight	3-color LED: green, orange, red (solid or flashing)	3-color LED: green, orange, red (solid or flashing)	3-color LED: green, white LED orange, red (solid or flashing)	
Touchpanel		Resisti	ive	
Touch select resolution		8 x 8 pi	xels	
CTC controller link	I	RS-232 (9.6 to 115 kBps)		RS-232 (9.6 to 115 kBps); Ethernet option
Overall dimensions [inch (mm)]	4.3 x 2.8 x 1.1 (110 x 72 x 28)	5.7 x 2.8 x 1.2 (144 x 72 x 30)	5.6 x 4.4 x 1.3 (142 x 112 x 34)	6.4 x 5.1 x 1.5 (163 x 129 x 39)
Behind panel depth [inch (mm)]	0.9 (24)	1.0 (26)	1.1 (30)	1.4 (35)
Project memory [Flash (MB)]	0.4	1.4	6.5	10 plus optional SD card
Front panel sealing		IP65	j	
Approvals	CE	, UL		CE
Operating temp (°C)		0 to 5	50	
Storage temp (°C)		-20 to	60	

#### **MGT PANEL CONNECTIONS**

#### **PROGRAMMING PORT:**

**MGT0**, **MGT1**, **MGT2**: All of these models use the following programming port to download a program after it has been created in GTWIN.

#### (1) TOOL port



Programming cable is available with programming software CTC part #: CTS-MGTWIN-2.8.

The N.C. terminal is open in the circuit.

**MGT3:** Uses a standard USB device cable to connect to its programming port. This is the same type of cable used to connect a PC to a USB printer.

#### COMMUNICATIONS (COM) PORT:

Here is the COM port used to connect your MGT panel to the CTC Controller. Note that you will make the following connections between the MGT COM Port and the CTC COM Port. See the installation guide for the controller you are using to find the appropriate port pin numbers.

MGT PANEL	CTC CONTROLLER
RD	TxD
SD	RxD
SG	Common/Gnd



#### CTC Blue Fusion to MGT Serial Cable part numbers and a drawing are shown below.

PART NO.	NAME	DESCRIPTION
000-288101	Controller / MGT COM Cable 7'	One end plugs into CTC controller COM port, other end color flying leads for MGT connector
000-288201	Controller / MGT COM Cable 15'	One end plugs into CTC controller COM port, other end color flying leads for MGT connector
000-288301	Controller / MGT COM Cable 25'	One end plugs into CTC controller COM port, other end color flying leads for MGT connector



# CHAPTER 3

## **CTC Controller Setup**

#### SETTING UP THE BLUE FUSION CONTROLLER

#### Configure a Blue Fusion controller as a Modbus RTU Slave device:

- 1. Store 1, 2, 3 or 4 to register 12000 to select the appropriate communication port to configure.
- 2. Configure baud rate, data bits, stop bits and parity to the desired settings.
- 3. Store "3" to register 12320 (this selects Modbus RTU Slave mode).
- 4. Store the controller's Modbus address in register 12321.
- 5. Store "1" to register 12323 (this forces the controller to match the H/L bit scheme used by the touch screen).
- 6. Store 25000 to register 12339 if you are using a Model 5300 controller (defines an offset for use with floating point registers).

☑ Note: You will need to write these values into your program since all of the above registers are non-volatile and will reset upon a power cycle.

#### Addressing between a BlueFusion and an MGT

Because the MGT uses Modbus, you will need to convert register/variable addresses used in the configuration software to match the registers/variables you wish to access in the Blue Fusion Controller.

Outputs are very simple. You will define them as they are addressed in the CTC controller. Output 1 would be addressed as 1 in the MGT panel.

To define an input you would add 100000 to the CTC input address. For example, Input 1 on the CTC would be addressed as 100001.

When addressing registers/variables you can use the CTC to Modbus Conversion.xls spread sheet that is downloadable from our website.

The spreadsheet is shown below. You simply enter the CTC Register you want to access and then use the appropriate Modbus Register as your reference in the GTWIN software.

	Α	D	E	G	Н	K	L
1	CTC Register				CTC Register		
2	[INT] / [FLOAT]	Modbus	Modbus		[INT] / [FLOAT]	Modbus	Modbus
3	5300: Floats must reside	Register	Register		5300: Floats must reside	Register	Register
4	in CTC Variant Registers:	[INT]	[FLOAT]		in CTC Variant Registers:	[INT]	[FLOAT]
5	36101-36700 (Volatile) &				36101-36700 (Volatile) &		
6	36701-36799 (Non-volatile)				36701-36799 (Non-volatile)		
7	Enter CTC Register #	Modbus [Int]	Modbus[Float]		Enter CTC Register #	Modbus [Int]	Modbus[Float]
8	Click Here for more info.	Result	Result		Click Here for more info.	Result	Result
9	50	400099			1	400001	
10	51	400101			1	400001	
11	52	400103			1	400001	
12	53	400105			1	400001	
13	54	400107			1	400001	
14	55	400109			1	400001	
15	56	400111			1	400001	
16	57	400113			1	400001	
17	58	400115			1	400001	
18	59	400117			1	400001	
19	36700		423399		1	400001	
20	36102	ſ	422203		1	400001	
21	36103		422205		1	400001	

☑ Note: If you are using floating point variables in the Model 5300 controller, you will need to use registers/variables between the range of 36101-36799 in the controller.

# CHAPTER

## GTWIN Software configuration for BlueFusion

#### **TOUCH SCREEN CONFIGURATION:**

Configure the CTC MGT Touch panel.

1. Run GTWIN and start a new project by selecting Create New File. You will see the following screen:

EL GTWHN								1	
fit yes just	die bes					-0.92	Là:		
			СТWN СТWN СТWN С С О С С О С С О С С О	reate New File	ES DK Cencel				
								-	
Ready		1.00	Langerter	I man the second second	Laner	Transferration of the	N.M	×	Y
a start	0.60 44	Stress-Plan	STORUDGE HEP	Aronal Corpo	ACT1 2008 HL.,	E 2505 Avonak	CIW24		12:21 84

2. Choose the appropriate GT model for the panel you are using (see table) and select the modbus (RTU Mode | modicon PLC) PLC Model.

Select Model			$\mathbf{X}$
GT Model	GT01(128(W)x64(H))/Monochrome	• ОК	
PLC Model	Modbus (RTU Mode   modicon PLC)	•	
Keep Curre	ent Settings		

When you select your model number use the following table:

FULL CTC MODEL NUMBER ON	PANEL MODEL SHORTCUT TO SELECT IN
PANEL	SOFTWARE
MGT0-1030	GT01
MGT1-1040	GT11
MGT2-1050	GT21
MGT3-2050	GT31

3. Configure the panel by selecting GT Configuration from the File dropdown menu.



*рос. по.* 951-401000-001

4. Under the Basic setup tab, change the Word Area to GDT and the Bit Area to WGR.

■ GTWIN - Untitled1 File : View : Start Editor Help □ @ ■ 血血 & 陶 圖 』 』 ■ ■ ■ ■ ■ ● 图 图 版 % ● 東 №	
Basic Setup       Communication Parameters       Auto-Paging       Start-up Screen       Setup       Recipe       Line Graph         Title       Eng         GT Model       GT01(128(W)x64(H))/M       Device Setting       Image: Communication Area to PLC       Image: Communication Area       Image: Communication Area<	OK Cancel Initialize

#### CHAPTER 4 – GTWIN SOFTWARE CONFIGURATION

5. Under the communications Parameters tab, configure serial communication parameters to match that of the controller. Store the Modbus Address of the controller in the PLC UNIT NO. field (this was the number stored in CTC Register 12321). Make sure the Baud Rate, Data Length, Stop Bits, and Parity Bits match what the controller is set to.

T Configuration - Basic Setup Comn	Untitled1 nunication Parameter	ers Auto-	Paging Start-up Screen Setup 1 Recipe Line Graph	ок 1
⊂ COM Port (Conne	cted to PLC/Externa	I Device)	PLC Unit No.(1-247 2	Cancel
Baud Rate Data Length	19200 8	▼ bps ▼ bit	Communication Error Handling Retry 3 times 4 seconds Setup Display Error Codes On (Unhold)	Initialize
Parity Bit	none	• Dit	Transmission Delay 0 msec. (0-1000)	
TOOL Port (Conne	ected to GTWIN)			
Baud Rate	115200	- bps		
Data Length	8	bit		
Stop Bits	1	bit		
Parity Bit	odd	•		
1				

# CHAPTER 5

## **Screen Design**

#### **DESIGNING A SIMPLE SCREEN**

We will now design a simple screen with a couple of tools.

#### Adding a Switch

We will first add a Switch (SW0) that will momentarily turn on output1 on the controller.



Click on the Open button in the Screen Menu.

#### CHAPTER 5 - SCREEN DESIGN

This will open Screen 0 and the *Standard Tool Bar*.



You can now drag and drop SW0 and place it in Screen 0 as shown below. Double click on the newly created tool SW0.



#### CHAPTER 5 - SCREEN DESIGN

You will see the following screen. Set the parameters as shown. We are setting the address to 1 since we are controlling output 1. Addressing is discussed in the section Addressing between a BlueFusion and an MGT (page 7).

List Basic Setup   Option   Valid Condition   Character	ОК
Operation Mode         ○ Bit Set         ○ Bit Reset         ○ Momentary         ○ Alternate       000001         ON/OFF Indication         ○ Off       ✓ Assign Output Device         ● On       ○ Push SW         ● Device	Cancel

You can also set up the Characters displayed for both the on and off state, and set your text setting preferences in the character tab:

Switch Parts No.0		×
List Basic Setup Option Valid Condition	Character	OK Cancel
Character String 1-ON	Image ABC	
Font Fixed (GTWIN)	Style Bold Underlined Outlined Shadow Italic	
Size         C         Half           Image: Constraint of the state	Color Character Background None *	

#### Adding a Lamp indicator

We will now add an indicator, Lampo, to indicate when input1 is on or off. Scroll down in the *Standard tool bar* to find Lampo and drag and drop it onto Screen 0.

	📲 Standard	(GT01) 🔀	
	Part type		🗖 0 (Base Screen) <untitle th="" 🔀<="" 🖃="" 🗖=""></untitle>
	All	•	"LPQ"
	Add	Delete Rename	M
I		k -	
	Ø		
	Lamp0	Lamp1	

Double click on the newly created LPO. Notice that inputs are defined starting at 100001 instead of at 1 like outputs.

				arts No.0
ок	\$	p Character	tup Color Setu	Basic Set
Cancel				I/OFF Bit
			100001	Device

#### Adding a Data input tool

We will now add a Data display/input tool, DAO, to read the MS timer. Scroll down in the *Standard tool bar* to find the Data tool and drag and drop it onto Screen 0.

Part type	<b>0</b> (Base Screen) <gt01t< th=""></gt01t<>
Add Delete Rename	
Msg2 Data	

#### CHAPTER 5 - SCREEN DESIGN

Double click on the DAO tool in Screen 0. The Reference Device value of 426003 represents register 13002 in the Controller as determined from the <u>CTC register to</u> <u>Modbus conversion table</u> as discussed in detail in the section <u>Addressing between a</u> <u>BlueFusion and an MGT</u> (page 7) and as shown below. The Data Format should be set to DEC(2W). Once that is done, the Number of Digits can be set up to 10 as shown below.

List Basic Setup Input Reverse/Blink Color and Form Option OK Data to Display Number of Digits (1-10) Data Format DEC(2 W) Zero Suppression $\cap$ Off $\widehat{\circ}$ On Reference Device 426003 Modbus CTC Register [INT] / [FLOAT] 5300/: Float's must piside in CTC Variant Registers: 36101-36700 (Volatile) & 36701-36709 (Volatile) & 36701-36709 (Volatile) & 36701-36799 (Non-volatile)	a Parts No. 1				×
Image: Constant of the second seco	ist Basic Setup Input Reve Data to Display Number of Digits (1 - 10) Data Format DEC(2 W)	erse/Blink Color and Form Op	C Half		OK Cancel
CTC Register       Modbus       Modbus         [INT] / [FLOAT]       Modbus       Register         5300; Floats must reside       INT]       Modbus       Register         in CTC Variant Registers:       [INT]       [FLOAT]         36101-36700 (Volatile) &       36701-36799 (Non-volatile)       Modbus [Int]       Modbus [Float]         Enter CTC Register #       Modbus [Int]       Modbus [Float]	Zero Suppression Off On Reference Device 426003	Horizontal Display Decima © Off © On	1 2 4 8		
Enter CTC Register # Modbus [Int] Modbus[Float]		CTC Register [INT] / [FLOAT] <u>5300:</u> Floats must eside in CTC Variant Registers 36101-36700 (Volatile) & 36701-36799 (Non-volatile	Modbus Register [INT]	Modbus Register [FLOAT]	
Click Here for more into.ResultResult13002426003		Enter CTC Register # Click Here for more info 13002	Modbus [Int] Result 426003	Modbus[Float] Result	
1 400001		1	400001		

#### CHAPTER 5 - SCREEN DESIGN

Notice that we set Input to on, since we want to be able to change the MSTimer and not just display it.

nge Cancel
nge
nge
sk Range
rigger
N on Output

#### Adding a Keyboard

In order to be able to edit a data tool, you need to have a keyboard setup. Drag and drop the DEC sign1 tool onto Screen 0. This keyboard will only show up when the operator touches a data tool with its Input setting set to on.

 $\square$  Note: You can also set up a Keyboard Screen. See *Appendix A – Brief Summary of Advanced Features* (page 26) for a summary on using a Keyboard Screen.



#### Adding a Screen Change tool

We will now add another screen/page to this program that uses a Function switch tool. Select the FSWO and drag and drop it onto Screen 0.



Double click on the tool FSO. Set the Operation Mode to Change Screen. Screen No. is where you would set the screen you would like the button to select.

Function Switch No.0	X
List Basic Setup ON/OFF Display Option Valid Condition Character	ОК
List Basic Setup ON/OFF Display Option Valid Condition Character  Operation Mode  Change Screen  Value Set  Add  Subtract  Change to GT Configuration  Thumbwheel SW  Back to Previous Screen  Screen No. (0 - 3FF)	OK Cancel

#### CHAPTER 5 - SCREEN DESIGN

#### Set the ON/OFF Indication to Off.

Functio	n Switch No.0	
List	Basic Setup ON/OFF Display Option Valid Condition	ок
ON	I/OFF Indication	Cancel
e	Off	
8	On	

The Character tab is where you would set the character string that the button displays.

ist Basic Setup ON/OFF Display Option	Valid Condition Character	OK
		Cance
Character String Eng	Image ABC	
Font Fixed (GTWIN)	Style Bold Underlined Outlined Shadow	
Size • 1*1 C Half Vertical 1 2 4 8 Horizontal 1 2 4 8	Color Character Background None	

#### Adding another screen

We will now open a new Screen 1. Click the small block signifying Screen 1 (the small box to the right of the red box signifying Screen 0). Now click on Open.



This will open up Screen 1.



We will now add another Function Switch that will go back to Screen 0.

#### CHAPTER 5 - SCREEN DESIGN

🔓 Standard(GT01)		
Part type		
Function switch	□ 1 (Base Screen) <gt01t< td=""><td></td></gt01t<>	
Add Delete Rename	'ESØCT'	
	(ABCD)	
ABCD		
FSWU		
ADUU		

Set the ON/OFF Indication to Off.

Function Switch No.0	
List Basic Setup ON/OFF Display Option Valid Condition	ок
ON/OFF Indication Off On	Cancel

Set the Character String to Back.

unction Switch No.0		_
List   Basic Setup   ON/OFF Display   Optic	n Valid Condition Character	ОК
ON OFF	Copy from ON	Cancel
Character String Back A	Image ABC	
Font Fixed (GTWIN)	Style	

# CHAPTER

### **Program Transfer**

#### **INITIAL DOWNLOAD**

After you have completed setting up your screens, you access the **Transfer** menu from the **File** dropdown menu.



Select the program you want to transfer in the following screen and click or.

Select File [Transfer]	
Select a File.	
C:\Program Files\Panasonic MEW Terminal\GT	ОК
C:Program Files(Panasonic MEW Terminal)GT	Cancel

The following screen will be displayed:

Transfer Data - GT01TrainingDoc	.IOP	$\mathbf{X}$
Data to Transfer          All Data         Base Screen         Configuration         Keyboard Screen         Flow Display         Write Device	© GTWIN->GT	OK Cancel COM Settings
Recipe File      Transfer Data After Clear GT Scre      Update the firmware automatical      Verify      Rece Screen No.	en. Iy. 🔓	Password IP Address
Keyboard Screen No.		

By choosing **ALL** DATA, your whole program including the configuration will be downloaded to the panel.

Once your program is downloaded to the panel, if you make any changes, they can be downloaded to the panel. This includes any changes to the Basic Communication Area or any changes on an individual screen. Just choose the option you wish to edit and click OK.

# 

#### **APPENDIX A - BRIEF SUMMARY OF ADVANCED FEATURES**

#### **Screen color selection**

By right clicking on a base screen, you can name the screen and change the background color.



#### **Switch Settings**

0 (Base Scree	n) -Untillied I -	ABCD AECD F No. Name
ABCD	List Basic Sehip Option   Valid Condition   Character   Operation Mode GR Set Bit Reset Momentary Atternate P100 ONUOFF Indication OR Assign Output Device On Push SW Device Device R100	OK 2 3 5 6 7 en <u>Court Parte</u>

List — This shows a list of contents of settings for each tab.

**Basic Setup** — This is where the operation mode and ON/OFF settings are entered.

**Option** — This specifies whether or not a sound is to be produced when a switch part is pressed.

**Valid Condition** — This specifies whether or not a sound is to be produced when a switch part is pressed.

**Character** — Conditions that control switch part functions are specified here. This specifies characters displayed on switch parts.

#### **Function Switch Settings**

Function switch parts are used to switch screens or execute arithmetic operations when the switch is pressed (touched). These switches implement various functions, depending on the operation mode. Function switch parts are used to display the screen on which the clock is synchronized, and to bring up the screen on which the contrast is adjusted

E FTWH Unlikedt		_ (d)	*
the DR the first first time togs fortfilles 304	Net Date		-
0000077000770000		T	
A A / NDOGAGOUAAS	0	Strendstd X	_
		Asen Asen - Statistic Servers -	*
🔁 0 (fane Screen) + Orotthaitt +	a a 🛛	F No. Name	
Function Switch No.0			1
Utt	and the second		
List Banc Setup   C	ON/OFF Display   Option   Valid Condition   Overaster	OK	
Operation Mode		Cancel	
(* Change Screen			
C Value Bet			
C Add		user Cost Here Des	
C Dub			
C Change to GT C	Configuration		
C Thumbwheel S	w		
C Back to Previou	a Screen		
C To Operate Alar	m Parts Screen No.(0-3FF)		
	0		
1.			
The function switch is selected.	for the second s	NUM X 13 Y 29	
Start Start	A REAL PROPERTY AND A REAL	GIWDI UKOBAL NG LENER	1.1

List — This shows a list of contents of settings for each tab.

**Basic Setup** — This specifies the operation mode.

**Value Set** — allows you to set a value of a particular register or word when the button is pressed:



Add and Subtract — enable the function switch to perform simple add or subtract functions or go back to a previous screen.

On/Off Display — This switches the display on and off.

**Color Setup** — Color that a control function switch part is specified here. (Only available for GT30)

**Option** — This specifies whether or not a sound is to be produced when a switch part is pressed.

**Valid Condition** — This specifies the condition necessary in order for a function switch part to function.

Character — This specifies characters to be displayed on function switch parts.

#### **Data Tool Settings**

G	Data Parts No.0			me ening Screen
Panaso Corpor	List   Basic Setup Input   Reverse/Blink   C	Color and Form   Option	Cancel	
	Startup Condition Press Condition	Input Range		Cut   Farrie   D
	Supported Keyboard C Keyboard Boreen C Keyboard Parts (0-7)	Oulput Trigger		

Supported Keyboard — select  $\kappa_{eyboard}$  screen when you want to enter data from the panel.

#### **Keyboard Screen Setup**

After selecting Keyboard screen, go to File > Keyboard screen. Once Keyboard screen is selected, choose the keyboard number you want to use:



#### APPENDIX A – BRIEF SUMMARY OF ADVANCED FEATURES

- 1. Click the Draw button on the Edit Keyboard Screen popup.
- 2. Then choose a keyboard:



All keyboard screens need a data point on them so the user can see what value is being entered:



#### **GT** Configuration

#### **AUTO-PAGING TAB**

(lase Screen).»	GT Coordeparation : Untitled1	ABCO ABCO	Ne of
	Setup Hold Device Value Recipe Alarm H Basic Setup Communication Parameters Auto-Plagin	Start-up Screen	OK
	Auto-Peging (* Off 1# On		
	No. Time Jump		itialize
			Con Parte Louise
	Setup		
	Auto-Poging		
	Screen No. D	Beturn	
	Time (1-255) 1	Save	
	Jump to (0-3FF)		

Options for the Auto paging popup are as follows:

Screen No. — This specifies the screen targeted for auto-paging.

**Time** — This specifies the time for which the screen specified above is displayed. The setting range is from 1 to 255 seconds.

**Jump To** — This specifies the number of the next screen to be displayed.

**Return button** — This completes the auto-paging settings and returns to the Auto-Paging dialog box.

**Delete button** — This deletes screens registered for auto-paging.

**Save button** — This saves the settings for the screen number, time, and jump destination as auto-paging settings.

#### START-UP SCREEN TAB

GT Configuration - Untitled1 Setup   Hold Devic Basic Setup   Corr	n Value   Recipe   Alarm H munication Parameters   Auto-Pagin	listory Line Graph		_
Start-Up Screen No. (0-3FF) Display Time (0-255)	0 0 Sec.	g Start-up Screen	Cancel Initialize	96 <u>1</u> 24
	Start-Up Screen No. (0-255)	Start-Up Screen No. (0-3FF) [1] Display Time (0-255) 0 Bec.	Start-Up Screen No. (0-3FF) III . Display Time (0-255) II . Sec.	Start-Op Screen No. (0-3FF) III Display Time (0-255) 0 Sec.

When the above settings are entered, the screen specified with the start-up screen No. parameter is displayed for the amount of time specified with the Display Time parameter.

When the amount of time specified with the Display Time parameter elapses, the screen corresponding to the number stored in the initial address of the word device under Basic Communication Area to PLC in the Basic Setup parameters under GT Configuration Will be displayed.

#### SETUP TAB

The Setup tab does several functions. You can set the Backlight Control, Touch sound, Battery Error Display, Or use the setup of Multi language exchange function.



#### HOLD DEVICE VALUE TAB

🗖 GTWIN - Untitled1				_ 6	X
Elle Edit View Draw Base Screen Parts Start Editor V	Vindow Help				
0680223668414	#   ● D ● •   9   % %   <b>●</b> @ W		jeû 💌		
A / VOOCJGON & A	<b>)</b> 🛞				
			🖶 Untitled1 - Scre	en 🔳 🗆 🔀	
0 (Base Screen) <untitled1></untitled1>		🚏 Standard 🔀	Telescolo		
GT Configuration - Untitle	d1				
Basic Setup	Communication Parameters Auto-Paging	Start-up Screen	ОК		
Setup	Sevice value   Recipe   Alarm History	/ Line Graph	Cancel		
Hold PLC Device Value	Hold GI Device Value				
C Off @ On	Data Register C Off	• On		~	
Device	GDT Start No.(0 - 2047)	)  0	Law at a		
	Internal Relay C Off	On	Initialize	ut   Roste   Dolote	
Number of Word	1 WGR Start No.(0 - 255)	0		ut insate perete	
Inditibel (1-24)					
			_		
Heady	Dub 🙆 0/TI 2005 Premium F 🗿 Oromat Coror	wation CTWIN - I	Intitled1	X 21 Y 45	) AM

Hold Device Value is a function that enables internal PLC device values to be held on the GTWIN side and a function that enables internal MGT device values to be held. The Hold PLC Device function reads the values for the specified internal PLC device to the SRAM in the GTWIN, and backs up the values just in case of running out of batteries. And the Hold GT Device Value function backs up values. This function is available for MGT10,11 or MGT30.

#### ALARM HISTORY TAB

lese Screen) - (Justificat) GJ Con	iguration - Untitle	11 T 12	3	20051001 (See ( ( ) )	8	1
B- Se	esic Setup   ( etup   Hold D	Communication Parameters   Iewce Value   Recipe	Auto-Paging Alarm History	Start-up Screen Line Graph Setting	OK Cancel	
Gro	up No Name Mor	atoring Start Device   Number of M	onitor Alarms   Alarm St	atus Record Count	Initialize	
						Ur Parte Delete
ţe				a		

Select a group No. in the Alarm History tab and click the settings button to call up the Alarm History Setting popup.

#### **ALARM HISTORY SETTINGS**

	(* (Qn)		- Constant	ÓK		Untilled1 - Sere	···
Inte I		Record	Eng	Cancel	A	X ne	0
Itant Device Karm Number 1 - 128) Alerm Status G BX ON G BX OFF BX OFF -> ON G BX OFF -> ON G BX OFF -> OFF	<b>Ν</b> πτο Τ	Number of Records 160 Setup the value recorded on QT. More than the number of lines af Record beformation P Triggered P Becover Acknowledged When memory is full New Alarm is saved   Last at No new alarms are saved	nd arm deleted		p Screen le Graph Beting cood Count	OK Cancel Initialize	e ( Porte ) Deter

Monitoring — Select on to set the control device for the group No. selected in the Alarm History tab When you select on, each menu item appears. Specify data area for monitoring bit device.

Name — Specify a brief explanation as a title for monitoring.

**Monitoring** — Specify data area for monitoring bit device.

**Start device** — Specify the initial device for sampling.

Alarm number — Specify the number of alarm (the number of device) for monitoring.

Alarm status — Select the state of a bit device for distinguishing as an alarm.

**Record** — Specify data area for monitoring bit device. This function records data in the internal device.

Number of Records — Specify the number of records for alarm information.

#### APPENDIX A – BRIEF SUMMARY OF ADVANCED FEATURES

**Record Information** — Select the area for saving data among Arising, Verifying, and Resetting.

Triggered: Record time when the device turns On or Off.

Acknowledged: Select the arising alarm, and record time when pressing specified button for verifying. It is operated with a combination of an alarm list part and a function switch.

**Recovered**: Record time when releasing/resetting an alarm.

When memory is full — Select the action when memory is full.

LINE GRAPH TAB



Select a group No. in the line graph tab, and click on the setting button to display the sampling setting for line graph dialog box. Specify the conditions for sampling.

#### LINE GRAPH SETTINGS

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Bampling OH OH OH Name Eng OHC Until Multi Secrem O Sampling Sampling Trgger Start Device OTT00 O Data Format Ottom Sampling Internal(sec.) 1 Data Format (1-32767) P DEC(1 W) P BCD(4 Digit) P DEC(2 W) P BCD(4 Digit) Record Auks Number of Graphs T DEC(2 W) P BCD(8 Digit) Number of Baphs Record Auks Number of Baphs T Start Device fran Plot Number Records 160 13254 Max Number	mpting setting for line graph		
Name Eng Cancel Sampling Sampling Trigger Start Device DT100 Other Format OEC(1 W) C BCD(8 Digin) C DEC(2 W) C BCD(8 Digin) Number of Graphs It mach Graphs	lamping C Of C On		OK
Sampling     Sampling Trigger       Start Device     DT100       Of Timer     Device Condition       Sampling Internal(sec.)     0       I     0       I     0       Sampling Internal(sec.)     0       I     0       Sampling Internal(sec.)     0       I     0       I     0       Sampling Internal(sec.)     0       I     0       Sampling Internal(sec.)     0       I	lame	Eng	Cancel durch x Ontribut Serena -
Data Format     (1-32767)     4       IP DEC(1 W)     PECD(8 Digits)     Pecord Avea       IP DEC(2 W)     ECD(8 Digits)     Pecord Avea       Number of Graphs     Number of Records 150     150       Image: Specify more than Plot Number     PSW2     Open Cont 250       Image: Specify more than Plot Number     13264       Max Number     13264	Sampling Start Device DT100	Sampling Trigger  G OTTimer  C Device Condition  Sampling Interval(sec)	ABCCI - 0 1 Sw1 2 3
Number of Graphs           Number of Graphs         Number of Hecords         160         1.1           1         Specify more than Plot Number         PSW2         Open         Open </td <td>Detect W C BCD(4 Digits)</td> <td>(1-32767) Record Alea</td> <td>ABCO 4 5 F8W0 8 7</td>	Detect W C BCD(4 Digits)	(1-32767) Record Alea	ABCO 4 5 F8W0 8 7
Lamp1 -	Number of Graphs	Number of Hocords 140 [] for each Graph Specify more flian Plot Number Recordable Max Number	PBW2 Open Com Com Street Co
		Max Rumber	Lamp1 .

Sampling — When you select ON, each menu item appears.

Name — Specify a brief explanation as a title for monitoring.

Start device — Specify the initial device for sampling.

**Data Format** — Specify size of data for sampling.

**Number of channels** — Specify the number of channels for sampling. The function monitors for specified number of channels from the initial device.

**Sampling trigger** — Specify intervals for sampling data.

GT timer — Sampling data values every time you specify using GT internal timer.

**Device condition** — Sampling data values whenever specified trigger is changed.

**Record Area** — Specify a data area for recording sampled data values.

Number of — Specify number of recording data for storing in the specified area.

 $\square$  Note: The memory for histories is 28160 bytes. Memory required for record of a line graph is 16 bytes as initial information and the size of data form bytes per one point. The memory for histories is used as area which records alarm history information and line graph history information.

#### Bar Graphs

You can monitor values using a Bar Graph. Be creative with the colors.

		,	1			Punction	switch (256.
		) <b>——</b>	5			Switch (2	56Color)
iranh Parts No.0				_		🔐 Standard	(GT30/GT21.
			5			Part type	
t Basic Setup	Reverse/Blink	Color and Form	Display Numeric		ОК	All	
Reference		Max/	Min.		Cancel	Add	Delete Rena
Device	DT100	Device Setting	- 🔼 -				
Data Format		DT	100			ABCD	ABCD
• DEC(1 W)	C BCD(4 Di		7 8 9				
C DEC(2 W)	C BCD(8 Di		4 5 6			Msg1	Msg2
Graph Type		Back Clear	1 2 3			-***	
Direction							
Right	⊖ Up	UK	Cancel			Data	Bar Graph
C Left	C Down		0				
						E	
						Clock	Line Grap

#### APPENDIX A – BRIEF SUMMARY OF ADVANCED FEATURES

Display Numeric means you can display the percentage that the Bar Graph has completed. It is very effective for filling applications.

Bar Graph Parts No.0	
List Basic Setup Reverse/Blink Color and Form Display Off On Display % Off Off On Color Numeric Background	Numeric OK Cancel