

OMRON

Temperature Controller Support Software

CX-Thermo Ver.4.0 Online Help



Contents

Chapter 1 Introduction

- 1.1 What is CX-Thermo?
- 1.2 Compatible Device Models and Computers
- 1.3 Hardware Setups
- 1.4 Basic Use Procedures

Chapter 2 Starting and Closing CX-Thermo

- 2.1 Starting CX-Thermo
 - 2.1.1 Selecting CX-Thermo from the start menu
 - 2.1.2 Starting CX-Thermo from *start a dedicated tool* in CX-Integrator.
- 2.2 Closing CX-Thermo

Chapter 3 Setting Parameters

3.1 CX-Thermo Screen

3.2 CX-Thermo Operation Procedures (offline)

- 3.2.1 Displaying a edit screen on a new project
- 3.2.2 Editing a parameter value (setting data) on a CX-Thermo database
- 3.2.3 Saving a parameter value (setting data) on a CX-Thermo database
- 3.2.4 Loading a CX-Thermo data file
- 3.3 CX-Thermo Operation Procedures (online)
 - 3.3.1 Communications Settings
 - 3.3.2 Online Connection
 - 3.3.3 Transferring a parameter value (setting data) to a device (download)
 - 3.3.4 Transferring a parameter value (setting data) from a device (upload)
 - 3.3.5 Parameter Mask Editor (*1)

Chapter 4 TrendMonitor

4.1 The TrendViewer Screen

4.2 TrendViewer Operation Procedures

- 4.2.1 Starting TrendViewer
- 4.2.2 Closing TrendViewer
- 4.2.3 Starting TrendMonitor
- 4.2.4 Stopping TrendMonitor
- 4.2.5 PID parameter tuning
- 4.2.6 Changing parameter setting values
- 4.2.7 Changing a parameter to monitor
- 4.2.8 Changing a drawing color of trend graph
- 4.2.9 Settings for trend graph and a logging
- 4.2.10 Displaying previously performed trend data
- 4.2.11 Performing TrendMonitor with previously performed TrendMonitor file

Chapter 5 Other Information

- 5.1 Precaution for Use
- 5.2 Installing Fonts (7 segment/11 segment)

- 5.3 Graph display on a trend data file in Microsoft Excel
- 5.4 How to install a driver when using a USB cable

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Chapter 1 Introduction

- <u>1.1</u> <u>What is CX-Thermo?</u>
- <u>1.2</u> <u>Compatible Device Models and Computers</u>
- <u>1.3</u> Hardware Setups
- <u>1.4</u> Basic Use Procedures

1.1 What is CX-Thermo?

CX-Thermo is a software to configure or control parameters in a device (components such as temperature controller). CX-Thermo runs on a computer with Microsoft Windows.

- Editing parameters in a device (E5ZN, E5AN, E5EN, E5CN, E5AN-H, E5EN-H, E5CN-H, E5AR, E5AR-T, E5ER, E5ER-T and EJ1) on a computer screen and saving setting data to a computer are supported.
- Setting data can be exported to a file in CSV format or in HTML format. A CSV-formatted file can be imported as well.
- Internal setting data in a connected device can be transferred to a computer or can be edited on a computer screen.
- The edited setting data can be transferred to a device and set in the device.
- The software has a parameter mask editor (*1) (E5AN, E5EN, E5CN, E5AN-H, E5EN-H, E5CN-H, E5AR, E5AR-T, E5ER and E5ER-T only).
- The software monitors data (such as a process value, set point, manipulated variable, PID parameter, and alarm ON/OFF) in a device up to 31 units (for EJ1N:up to 64, for EJ1G:up to 17, and for E5ZN:up to 16) and saves a trend data file.

The internal setting data such as a set point in a device can be modified during TrendMonitoring.

Executing operation instructions (such as RUN/STOP, or bank switch) and changing a condition inside a device can be changed during TrendMonitoring.

• Tuning of control performance is available. Users can set a preference on control performance with auto-tuning (AT) to a connected device and set auto-tuning on PID parameter with fine-tuning, (*2).

*1 Parameter mask editor is a function that hides unnessary parameters from parameters displayed on a device. This function is useful when to display only nessesary parameters and to hide particular parameters so that final users cannot make modifications.

*2 Fine-tuning instructs CX-Thermo to calculate a new PID parameter by putting direct commands to improve a response condition.



1.2 Compatible Device Models and Computers

Compatible Device Models

CX-Thermo Ver.4.0 supports the following models (except models for DeviceNet communications type).





Personal Computer System Requirements

Item	Specification
OS	Microsoft Windows 2000 (Service Pack 3 or after)/XP/Vista
CPU	Pentium 300MHz or more
Memory	128MB or more
Hard disk	300MB or more space
CD-ROM	1 or more
Monitor	SVGA (800 x 600 pixel) min
Communications Ports	RS-232C port, USB port 1 port or more

1.3 Hardware Setups

■ Hardware Setup 1

Connect a setting tool port of E5CN, E5EN, E5AN, E5CN-H, E5EN-H, E5AN-H and EJ1 and a computer with USB-Serial Conversion Cable (E58-CIFQ1).

When E58-CIFQ1 is used to connect a device with a computer, driver is required. Please refer to "How to install a driver when using a USB cable" about the procedures to install a driver.



Note:

You cannot use ports for setting tools with E5CN, E5EN or E5AN with communications functions ("-FLK" models before renewal in January of 2008) during host cumminications.

Reference:

When a computer is connected with a setting tool port of EJ1 end unit, communications can be executed with multiple EJ1 connected horizontally.

■ Hardware Setup 2

It is possible to connect up to 31 temperature controllers with RS-485 communications functions (for EJ1N:up to 64 units, for EJ1G:up to 17 units, for E5ZN:up to 16 units) and a computer through an interface converter (K3SC).

It is possible to connect temperature controller with RS-422 communications functions and a computer through an interface converter (K3SC).

When K3SC and a USB cable are used to connect a device with a computer, driver is required. Please refer to "How to install a driver when using a USB cable" about the procedures to install a driver.



■ Hardware Setup 3

It is possible to connect temperature controller with RS-232C communications functions and a computer.



■ Hardware Setup 4

It is possible to connect temperature controller with infrared communications functions and a computer through USB-Infrared Conversion Cable (E58-CIFIR).

When E58-CIFIR is used to connect a device with a computer, driver is required. Please refer to "How to install a driver when using a USB cable" about the procedures to install a driver.



1.4 Basic Use Procedures

This chapter explains the basic use procedure for CX-Thermo.

■ To set a parameter offline

- 1. Starting CX-Thermo
- 2. Displaying a edit screen on a new project
- 3. Editing a parameter value (setting data) on a CX-Thermo database
- 4. Saving a parameter value (setting data) on a CX-Thermo database

■ To load a saved parameter (setting data) and download into a device

- 1. Starting CX-Thermo
- 2. Loading a CX-Thermo data file
- 3. Communications Settings
- 4. Online Connection
- 5. Transferring a parameter value (setting data) to a device (download)

To set a parameter online

- 1. Starting CX-Thermo
- 2. Communications Settings
- 3. Online Connection
- 4. Editing a parameter value (setting data) on a CX-Thermo database
- 5. Transferring a parameter value (setting data) to a device (download)
- 6. Parameter Mask Editor (*1)

To adjust control parameters such as PID parameter while TrendMonitoring

- 1. Starting CX-Thermo
- 2. Communications Settings
- 3. Online Connection
- 4. Starting TrendViewer
- 5. Starting TrendMonitor
- 6. PID parameter tuning

To load a parameter (setting data) and save as a file

- 1. Starting CX-Thermo
- 2. Communications Settings
- 3. Online Connection

- 4. Transferring a parameter value (setting data) from a device (upload)
- 5. Saving a parameter value (setting data) on a CX-Thermo database

Note:

Online is a status in which communications between CX-Thermo and a device is confirmed. CX-Thermo confirms that device model edited on CX-Thermo corresponds with a device connected. CX-Thermo must be online with devices to transfer parameters and function particular options. A parameter value on CX-Thermo is not synchronized with a parameter value in a device even when online. You can match parameter values by transferring operations between a device and a computer.

Chapter 2 Starting and Closing CX-Thermo

<u>2.1</u> Starting CX-Thermo

 $\frac{2.1.1}{2.1.2}$ Selecting CX-Thermo from the start menu

Starting CX-Thermo from start a dedicated tool in CX-Integrator.

Closing CX-Thermo <u>2.2</u>

2.1 Starting CX-Thermo

CX-Thermo starts with one of these steps:

- 1. Selecting CX-Thermo from the start menu.
- 2. Install CX-Integrator from CX-One, right-click the temperature controller icon on *Network Configuration* window, and the select *start a dedicated tool*

2.1.1 Selecting CX-Thermo from the start menu

 Select *Program* in the *Start* menu in Microsoft Windows -> *OMRON* -> *CX-One* -> *CX-Thermo* as the screen shown below.



2. CX-Thermo starts and the following screen will be displayed.



2.1.2 Starting CX-Thermo from *start a dedicated tool* in CX-Integrator.

NewProject - CX-Integrator - [Compo	Wayf(CompoWayf):Net(-)]	
$\frac{2}{2}$ Ele Edit Yew Insert Network Comp	onent Iools Windows Help	
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CompolWayF(CompolWayF):Net(-)	Composition Exameter Toggle Position The Sopy Children Deste Children Edit Neme Edit Neme	Compo4 ESAN Node(008)
	Start <u>a</u> dedicated tool	Start with Settings [nherited Start Only

Refer to the "CX-Integrator help" for details.

2.2 Closing CX-Thermo

Select *File -> Exit* in the menu bar on the CX-Thermo screen.



Chapter 3 Setting Parameters

<u>3.1</u>	<u>CX-Thermo Screen</u>
<u>3.2</u>	CX-Thermo Operation Procedures (offline)
<u>3.2.1</u>	Displaying a edit screen on a new project
<u>3.2.2</u>	Editing a parameter value (setting data) on a CX-Thermo database
<u>3.2.3</u>	Saving a parameter value (setting data) on a CX-Thermo database
3.2.4	Loading a CX-Thermo data file
<u>3.3</u>	CX-Thermo Operation Procedures (online)
331	Communications Settings
5.5.1	
3.3.2	Online Connection
<u>3.3.2</u> 3.3.3	Online Connection Transferring a parameter value (setting data) to a device (download)
<u>3.3.2</u> <u>3.3.3</u> <u>3.3.4</u>	<u>Online Connection</u> <u>Transferring a parameter value (setting data) to a device (download)</u> Transferring a parameter value (setting data) from a device (upload)

3.1 CX-Thermo Screen

■ Items on the CX-Thermo screen

		6.Parameter info	rmation window				
1.Menu bar	Fie Edt New Commissions Trendfortor	Options Help					ad X
2.Tool bar	CH Channel name CH1 Channel - 1	Operation Level Set Point Marm Value 1			T		al Narameter Information Channel Name Channel - 1 Parameter Name Set Point
3.Channel list window	년 문 🖕 ESCN-C1LU 응 🏣 Control in Progress Paramet	Alarm Value Upper Limit 1 Alarm Value Lower Limit 1 Alarm Value 2 Alarm Value 2 Alarm Value Upper Limit 2 Alarm Value Lower Limit 2	0				Setting Range 0 - 100 Unit EU Factory Default 0 Parsmeter Value 0
4.Workspace	Operation Level Adjustment Level Gatool Stopped Parameters Gatool Stopped Parameters Advanced Function Settin Goperation Commands FIUN/STOP GATE Seculte/Cancel E Auto/Manual	Harm Yolder Correr Call & Alarm Value S Alarm Value Lover Linit 3 Alarm Value Lover Linit 3	0			- P	Warameter Guide Set the required temperature (Set Point).
	N [11/007 120622] CX-1 [11/007 120629] The	Themso START retting of ESCN-CILU begins.					
5.Output window	Ready			1.79 - 1.90			Office 🦽
	Γ`E	7.Status bar	ן\ ∟	8.Paramet	er Editing, ope	ration	command setting area

Items	Functions
1.Menu bar	Selects an operation from the menu
2.Toolbar	Displays buttons and options for frequently used operations in the menu bar
3.Channel List Window (*1),	Displays channel names
(*2)	Channel names can be freely edited. (Select Options in the menu bar on the
	CX-Thermo screen -> Edit channel name to edit channel names in the dialog
	box).
4.Workspace (*2)	Displays a parameter name and an operation command name
	Displays a parameter name on a device and an operation command name on a
	tree display
	When selecting a parameter, an operation command or a folder that includes
	parameters, editing on No.8 (parameter editing, operation command execution
	area) is accessible.

5.Output Window (*1), (*2)	Displays a currently editing device image and operation information
6.Parameter Information	Displays a workspace tree, parameter information that is selected in a
Window (*1), (*2)	table-formatted parameter editing view, 1. Channel name, 2. Parameter name, 3.
	Setting range, 4. Unit, 5. Default value, 6. Parameter value) and parameter guide
	(parameter descriptions).
7.Status bar	Displays online or offline status
	Displays communications settings in orange color while online
8.Parameter editing, operation	User can perform parameter editing and an operation command execution.
command execution area	
	When selecting a parameter in a workspace tree, an individually edited parameter
	view is displayed on the parameter editing and the operation command execution
	area, and the setting form of the selected parameter, the parameter information (1.
	Channel name, 2. Parameter name, 3. Setting range, 4. Unit, 5. Default value, 6.
	Parameter value) and the parameter guide (parameter descriptions) are displayed
	as well.
	Input a parameter value from the setting form, click Update, and the changed
	value becomes effective on CX-Thermo.
	When performing transfer from a computer to a device, the parameter value will
	be written into the device.
	When selecting a folder that includes parameter in a workspace tree, a
	table-formatted parameter editing view is displayed on a parameter editing and
	an operation command execution area and a parameter in the selected folder and
	the parameter value are showed by a list. When inputting a parameter value and
	then click other section or click <i>Enter</i> , the changed value becomes effective on
	CX-Thermo. When performing transfer from a computer to a device, the
	parameter value will be written into the device.
	When selecting an operation command in a workspace tree, an operation
	command execution view is displayed on the parameter editing and the operation
	command execution area, and the setting form of the selected operation
	command, the parameter information (1. Channel name, 2. Parameter name) and
	the parameter guide (operation command descriptions) are displayed as well.
	When clicking <i>Execute</i> , the operation command will be executed and the device
	status changes.

- *1 Select *View Window* in the menu bar on CX-Thermo and you can swtitch display and hide.
- *2 Double-click the area shown below and you can freely move it around in the screen.



Menu Format List

Main Menu	Icon	Submenu	Functions
File	Ľ	New	Creates a new project
			Loads
		Open	CX-Thermo data
		•	files (with file
			extension ".est")
			Saves setting data
			in a currently
		Save	CX-Thermo data
			file (with file
			extension ".est")
			Saves setting data
		Save As	in a different file
			separate from a
			currently opened
			CX-Thermo data
			file (with file
			extension ".est")
			Converts the
		Convert Device	project into
			another one of
			compatible model

		Export	CSV	Export All Export Changed Parameters	Saves all setting data in CSV format Saves only changed setting data in CSV
		Export	HTML	Export All Export Changed Parameters	format Saves all setting data in HTML format Saves only changed setting data in HTML format
		Import	CSV		Loads a CX-Thermo data file in CSV format
		Exit			Closes CX-Thermo
Edit	E	Сору			Copies a parameter value in a table-formatted parameter editing view
Edit	Ê	Paste			Pastes a parameter value in a table-formatted parameter editing view
Communications	A	Work Onl	ine		Switches online/offline
	455 155	Settings			Sets network communications
	Ð	Transfer from Device (*1)		Loads data from a device	

					XX7 ·
			Download All (*1) Download Changed Parameters (*1) Download Changed from Default (*1)		Writes all parameters to a device
		Transfer to Device			Writes only changed parameters to a device
					Writes a parameter that is changed from a factory default value to a device
View			Channel List Window		Switches display and hide of the channel list window
		Window	Output Window		Switches display and hide of the output window
			Parameter Window	Property	Switches display and hide of the parameter property window
		Reset Win	ndow Layout		Resets a window layout to a default condition
	View Mode : Basic - Level	View Mode	Basic	Level	Displays basic parameters by levels on a workspace tree Displays only an operation outline on the output window

View Mode : Basic - Function			Function	Displays basic parameters by levels such as input, output or control on a workspace tree Displays only operation outline on the output window
View Mode : Advanced - Level			Level	Displays all parameters by levels on a workspace tree Displays communications command and response on the output window
View Mode : Advanced - Function		Advanced	Function	Displays all parameters by levels such as input, output and control on a workspace tree Displays communications command and response on the output window
	Expand and Collapse	Expand All		Displays all parameters on a workspace tree
		Collapse Pa	arameters	Displays all folders on a workspace tree

			Collapse All	Displays main groups of folders on a workspace tree
		Cell Size	Auto Adjustment	Automatically adjusts cell width to contents in a table-formatted parameter editing view Automatically adjusts cell width to contents in a workspace tree even after changing folders
	a⊾ ¥—¥		Fit Cell to Contents	Fits cell width to display contents on table-formatted parameter editing view
			Fit Spread in Window	Fits cell width to a window in table-formatted parameter editing view
TrendMonitor		TrendViev	wer (*1)	Starts TrendViewer

			Resets a
			parameter value
			on CX-Thermo to
			a factory default
		Deserver Temperary Settings	value without
		Recover remporary Settings	changing a
Ontinue			channel name
Options			The parameter
			value remains
			same
		Edit Channel nome	Edits channel
			names
		The menu differs from a device sele	ected.
		Refer to the "Option menu list" for	details.
			Displays the help
		Help Contents	contents on
			CX-Thermo
Help		Online Registration	Registers online
			Introduces the
	8	About CX-Thermo	newest version
			information

*1 Available only when CX-Thermo and temperature controllers are connected online.

Option Menu List

Submenu	Description	E5CN/ E5EN/ E5AN	E5CN-H/ E5EN-H/ E5AN-H	E5ER/ E5AR	E5ER-T/ E5AR-T	E5ZN	EJ1N-TC4/ EJ1N-TC2	EJ1N-HFU	EJ1G-TC4/ EJ1G-TC2	EJ1G-HFU
ameter Copy	Copiesaparametervaluetoadifferentchannel					•	•			•

	Hides an								
ameter Mask	unnecessary								
tor (*1) (*2)	parameter from a	•	•	•	·				
	device display								
gic Operation	Sata logic operation	•							
tor (*2)	Sets logic operation	•	•						
nk parameter	Displays a bank								
	parameter list			•					
	Copies a								
	specified bank or								
ny Poplz DID	a PID parameter								
ру Банк ГШ	value to an other			•					
	bank or a PID								
	group								
noromotor	Displays an								
um parameter	alarming				•				
	parameter list								
	Copies a								
	specified								
	alarm group								
	or a PID								
py Alarm PID	parameter value				•				
	to an other								
	alarm or a								
	PID								
	group								
grammer	Sata a program				•				
tor (*2)	Sets a program				•				
tus Display	Displays a					•	•	•	•
)	device status					Ţ	•	•	÷
gramless	Sets programless								
mmunications	upload/download						•		•
ameter Editor	settings						-		-
2)	settings								

	Uploads or					
	downloads					
nfiguration	multiple					
nagement	parameters that				٠	
.)	include					
	EJ1N-HFU all at					
	once					
s Assignment	Displays a bus					
play <mark>(*1)</mark>	layout status				•	
nfiguration	Sets a basic unit					
l Group	formation and					•
tor	group					

*1 Available only when CX-Thermo and temperature controllers are connected online.

*2 Exists as a parameter in a workspace tree. Select parameter, click *Start* to display the same setting dialog box.

3.2 CX-Thermo Operation Procedures (offline)

3.2.1 Displaying a edit screen on a new project

1. Click *File -> New* from the menu bar on the CX-Thermo screen.



2. When the following *Device Select* dialog box is displayed, select "Family" and "Part number" from the list and click *OK*.



Reference:

The part number of EJ1 is determined depeding on the number of G3ZA connected. Click "Select Part Number" button and select a part number from the screen which is displayed. Direct input to the format and copy-and-paste the format from e-catalog or website is also possible.

Reference:

Click *File -> Convert Device* from the menu bar on the CX-Thermo screen. When the *Device Select* dialog box is displayed, select "Part number" from the list and click OK. The model can be changed keeping parameter values.

3.2.2 Editing a parameter value (setting data) on a CX-Thermo database

1. When selecting a folder that includes parameters in a workspace tree, a table-formatted parameter editing view will be displayed on a parameter editing and an operation command execution area, and parameters in the selected folder and parameter values will be showed in a list.



2. Select a parameter value to edit.



3. Enter a numeric value or select settings from a list.

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	Bank 21P Keep Int Saler	10.44
	Dark I Harr Siduk J	1.0
·	Bank 3 Marri Salar Lipper Link 1	THE R. P. LEWIS CO., LANSING MICH.
Control In Program Parameters	Del Calari Udul Lores Link 1	1.110
	Date (Hard 1 days 2	4.0
+ Adaptant Level	Bank II Alaren Kater Laaren Ginak II	4.0
Beak Setting Level	The Clinic View Lines 1.04 2	EPCA4
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se in Bank 1	Dank 3 Kiner inder Lipper Lind. 3	TELEAN -
in Car Rank 2	Date 2 Name Industry of Links 2	10.000
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110397 1446-53 The prints	of EXCITATION AND IN COLUMN	Classel Reve Classel - 1 Nature Reve Data 112
		Seting Surge - 300.0 - 1000.0 Dat 40

4. Click other section or select *Enter* key to make the changed value effective on CX-Thermo.



Note:

You can set a special parameter that differs depending on device models in a different screen. Select a parameter that starts a setting screen in a workspace tree and execute the setting from the dialog box after clicking *Start*. You can also select a parameter from *Options* in the menu bar on CX-Thermo. Refer to the "Option Menu List" for target models and a parameters (function).

Reference:

Parameter information (1. Channel name, 2. Parameter name, 3. Setting range, 4. Unit, 5. Default value, 6. Parameter value) that is selected from a table-formatted parameter editing view and a parameter guide (an explanatory text on parameter) are displayed on the parameter property window. Use the following steps to edit a parameter one by one, examing above information.

When selecting a parameter in a workspace tree, a separate parameter-editing view will be displayed on a
parameter editing and an operation command execution area, and a setting form of the selected parameter,
parameter information (1. Channel name, 2. Parameter name, 3. Setting range, 4. Unit, 5. Default value, 6.
Parameter value) and a parameter guide (an explanatory text on parameter) will be displayed.

Co-Thermal - Heating				aliti.si
Ph SH we compliate to the late				
CH Chateel same OH Channel 1	Durvet Tune Famales Have Setro Range	Daniel 1 Berfore (00.1000		
Centrel in Progress Parameter Protect Lavel Derrotion Lovel Set Phile Mann Value Upper Limit Mann Value Lover Limit Mann Value Lover Limit Mann Value Lover Limit Mann Value Lover Limit Mann Value Jover Limit Mann Value Lover Limit	Datros TelesOdust PassesVila Datte insteado	fr fr	δ π.	Seed off
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Rende				Xiller _

2. Enter a numeric parameter value or select settings from a list in the setting form.

C2-Thread United			ADUM
D GF G (19 10) Vectoria: Advanced L	na ∎∳⊕⊕≕ ⊟ Danatizae Danati	17 4 19 14 14 14 14 17	
CH Channel - 1	Factorie Name Der Freis Julieg Konge (2001-1000)		
Control in Progress Parameter 2 Parket Lovel Operation Lovel Set Phile Name Volue 1	Edification Participation (1)	300 T	14x4mm2
Afarm Value Upper Linit Afarm Value Lower Linit Afarm Value 2 Afarm Value 2 Afarm Value Upper Linit Afarm Value Jower Linit Afarm Value J Afarm Value Jower Linit Afarm Value Upper Linit Afarm Value Upper Linit Afarm Value Upper Linit	Passen lide Del fin vajaci bigentase (in	Fart)	Treed public
Elifort (5.0.4) The stra	PL PL PL PL PL PL PL PL PL PL	C Parametris Educations Oscarde Parametris Character (-) Parametris Parametris Parametris Secting Param	
Freds			Xiffer _

3. Click *Update* to make the changed value effective on CX-Thermo.

The State was Communities. Text Black in State D State State (State State State State State Advanced Law Advanced Law Advanc	a redp a <u>n</u> (b) (b) Durred State	r⇔ ci⊡ a g la la la a 1 Deni 1	1
Off Channel-1	Fairnin Nam Satry Range	301 1001	
Centrel in Progress Parameters Principal Level Coperative Level Aleme Value 1 Aleme Value 1 Aleme Value 1 Aleme Value 1 Aleme Value 2 Aleme Value 1 Aleme Value 1	Del Fors Factor Delsak Facesers Volar Est Tie repaired to	aparance (Ler Fart)	Tool of
Control of the setue	Approx.2000 Approx	H Parantin Labranian RLD H T Parantin Labranian Parantin Para Setting Range 200-1000 Tail 10	į.

Reference:

A parameter can be edited with using only keyboards (no need to use mouse).

When a workspace is in focus, press the "Tab" key and the focus moves to a parameter editing and an operation command area.

When the focus is in a parameter editing and an operation command area, hit "Shift" + "Tab" keys and the focus moves to a workspace.

Reference:

Workspace, channel list window, output window and parameter property window can be freely laid out. Each window except for workspace can be displayed or hidden. Unnecessary windows can be closed or moved to a different area in response to operations. When letting default position be restored to execute a different operation, select *View* in the menu bar on CX-Thermo -> *Reset Window layout*.

3.2.3 Saving a parameter value (setting data) on a CX-Thermo database

■ Save a CX-Thermo data file (with file extension ".est")

Select File -> Save in the menu bar on the CX-Thermo screen, or select Save as and specify a file name.

C2 Thread Linking		Contraction of the local division of the	*i01.si
He Bill Wer Communities Terrifferder Tates Hen- Chieff Brain: Advacced-Le	~ <u>비</u> 수당:		
See As 15 See As 15 Central Central A	Duront Name D Facement Name D	haannal - 1 ar Frink	
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A CX-Thermo data file(with file extension ".est") will be created.

Save a CX-Thermo data file in CSV format

Select *File* in the menu bar on the CX-Thermo screen -> *Export* -> *CSV* -> *Export all* or *Export Changed Parameters*, and save the data with a file name.



A CX-Thermo data file(with file extension ".csv") will be created.

Reference:

"Present settings" in the data saved by selecting *Export all* can be edited on Microsoft Excel and can be reloaded with import function on CX-Thermo.

However, when the data is out of setting range or the format is irregular, or, a file saved by selecting *Export Changed Parameters* cannot be imported.

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Save a CX-Thermo data file in HTML format

Select *File* in the menu bar on the CX-Thermo screen -> *Export* -> *HTML* -> *Export* all or *Export* Changed *Parameters*, and save the data with a file name.

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A CX-Thermo data file(with file extension ".htm") will be created.

Reference:

7 segment or 11 segment fonts are used on a front panel display on a device in a CX-Thermo data file in HTML format. When this display is set with a plain text, necessary fonts have to be installed.

Refer to the "Installing Fonts (7 segment/11 segment)" for instrucitons on how to install fonts.

Reference:

To print a parameter value (setting data), follow these steps.

- To print setting data that is saved as a CX-Thermo data file in CSV format.
 Open a saved file in Microsoft Excel.
 Select *File* in the menu bar in Microsoft Excel -> *Print*.
- To print setting data that is saved as a CX-Thermo data file in HTML format.
 Open a saved file in Microsoft Internet Explorer.
 Select *File* in the menu bar in Microsoft Internet Explorer -> *Print*.

3.2.4 Loading a CX-Thermo data file

■ Load a CX-Thermo data file (with file extension ".est")

1. Select *File* in the menu bar on the CX-Thermo screen -> *Open*.



2. When the following *Open* dialog box is displayed, select a CX-Thermo data file (with file extension ".est") and click *Open*.

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/ Sample			
I			
File name:	Sample		Open
Files of type:	CX-Thermo file (".ext)		Cancel
		_	

3. A CX-Thermo data file (with file extension ".est") will be loaded.



- Load a CX-Thermo data file in CSV format
- 1. Select *File* in the menu bar on the CX-Thermo screen -> *Import* -> *CSV*.

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2. When the following *Open* dialog box is displayed, select a CX-Thermo data file in CSV format and click *Open*.



3. A CX-Thermo data file in CSV format will be loaded.



Note:

A CX-Thermo data file that is created on Japanese CX-Thermo (with file extension ".est") cannot display units correctly on English CX-Thermo. Similarly, a CX-Thermo data file that is created in English CX-Thermo (with file extension ".est") cannot display units correctly in Japanese CX-Thermo.

A CX-Thermo data file in CSV format that is created in Japanese CX-Thermo displays units correctly in English CX-Thermo. Similarly, a CX-Thermo data file in CSV format that is created in English CX-Thermo displays units correctly in Japanese CX-Thermo. However, in case that OS with different decimal separator and boundsymbols are used to save/open the file, units cannot be correctly displayed.

3.3 CX-Thermo Operation Procedures (online)

3.3.1 Communications Settings

1. Click *Communications* on the CX-Thermo screen -> *Settings*.

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2. When the following *Communications Settings* dialog box is displayed, set communications parameters, and then click *OK*.

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Baud rate	38400 -	I
Data length	7	I
Stop bit	2	I
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Unit number		
Restore	Default	ок
		Cancel

Communications Settings List

Setting	Description
Item	
Serial Port	Selects a serial port in a computer (a serial port that connects a cable)
	Displays a COM port number and a name of communications cable (Interface converter) such as
	E58-CIFQ1 or K3SC
Baud rate	Adapts to a connecting device or interface converter settings
	Fixes the settings to a default value "38400" for the following ports;
	- port A in EJ1
	- a setting tool port in E5CN, E5EN, E5AN (after renewed in January of 2008), E5CN-H, E5EN-H or
	E5AN-H
	- an Infrared communications port in E5EN-H or E5AN-H
Data length	Adapts to a connecting device or interface converter settings
	Fixes the settings to a default value "7" for the following ports;
	- port A in EJ1
	- a setting tool port in E5CN, E5EN, E5AN (after renewed in January of 2008), E5CN-H, E5EN-H or
	E5AN-H
	- an Infrared communications port in E5EN-H or E5AN-H
Stop bit	Adapts to a connecting device or interface converter settings
	Fixes the settings to a default value "2" for the following ports;
	- port A in EJ1
	- a setting tool port in E5CN, E5EN, E5AN (after renewed in January of 2008), E5CN-H, E5EN-H or
	E5AN-H
	- an Infrared communications port in E5EN-H or E5AN-H
Parity	Adapts to a connecting device or interface converter settings
	Fixes the settings to a default value "Even" for the following ports;
	- port A in EJ1
	- a setting tool port in E5CN, E5EN, E5AN (after renewed in January of 2008), E5CN-H, E5EN-H or
	E5AN-H
	- an Infrared communications port in E5EN-H or E5AN-H
Unit	Adapts to a connecting device
number	Fixes the settings to a default value "1" for the following ports;
	- a setting tool port in E5CN, E5EN, E5AN (after renewed in January of 2008), E5CN-H, E5EN-H or
	E5AN-H
	- an Infrared communications port in E5EN-H or E5AN-H

3.3.2 Online Connection

1. Click *Communications* in the menu bar on the CX-Thermo screen -> Work Online.



2. The status bar changes to orange while the system is online as the screen shown below.



Note:

Online is a status that confirms communications between CX-Thermo and a device. It also confirms that a editing model on CX-Thermo corresponds with a model of a device connected. Parameter transfer or some option functions require communications and only work online. Even when online, a parameter value on CX-Thermo is not synchronized with a parameter value on a device. Parameter values correspond by transferring from/to device and computer.

Reference:

A connected device model will be recognized automatically when matching communications settings and you do

not need to select models in the dialog box Device Select.

If there is no parameter value (setting data) on CX-Thermo, perform automatic upload after connecting online and synchorinize a parameter value in a device.

3.3.3 Transferring a parameter value (setting data) to a device (download)

■ Transfer all parameter values (setting data)

Select *Communications* in the menu bar on a CX-Thermo screen -> *Transfer to Device* -> *Download* All.



Transfer a changed parameter value (setting data) after opening a file or transferring a parameter value (setting data)

Select *Communications* in the menu bar on CX-Thermo -> *Transfer to Device* -> *Download Changed Parameters*.



Transfer a changed parameter value (setting data) that is changed from a factory default value (default value) Select *Communications* in the menu bar on CX-Thermo -> *Transfer to Device -> Download Changed from Default*.

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Note:

When executing *Download Changed Parameters* transfer or *Download Changed from Default* transfer from a computer to a device, the transfer time will be shorten compared to *Download All*, but parameter values on CX-Thermo may not match fully with parameter values on a device.

After executing a transfer from a device to a computer, be sure to edit parameter values (setting data) and perform *Download Changed Parameters* transfer from a computer to a device.

Be sure to check that a device is under a factory parameter default value first and execute *Download Changed from Default* transfer from a computer to a device.

3.3.4 Transferring a parameter value (setting data) from a device (upload)

Select *Communications* in the menu bar on CX-Thermo -> *Transfer from Device*.

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3.3.5 Parameter Mask Editor (*1)

*1 Available only for E5CN, E5EN, E5AN, E5CN-H, E5EN-H, E5AN-H, E5ER, E5AR, E5ER-T or E5AR-T.

Reference:

Parameter mask editor is a function that hides unnessary parameters from parameters displayed on a device. This function is useful when to display only nessesary parameters and to hide particular parameters so that final users cannot make modifications.

1. Select *Options* in the menu bar on CX-Thermo -> *Parameter Mask Editor*.



2. When the *Parameter mask editor* box is displayed, select a check box on the left side of parameter names to activate parameter mask editor (hidden during front key operation).

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3. When clicking *Write*, setting data of a parameter mask editor will be written into a device and will be updated on CX-Thermo.

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Note:

In parameter mask editor dialogue box, parameter mask settings (condition of check boxes on the left side of parameter names) in a connected device and a settings without parameter mask (default display) are displayed. The condition of check boxes on the left side of parameter names does not display parameter mask settings on CX-Thermo data file.

Reference:

When clicking *Write*, setting data of a parameter mask editor will be written into a device and will be reflected on CX-Thermo. If you want to transfer the same parameter mask editor to a different device, execute a transfer from a computer to a device, select *Download All* or *Download Changed from Default* and the data in parameter mask editor will be written into a device. The setting data in parameter mask editor will be saved in a CX-Thermo data file.

To restore parameter mask settings to a factory default condition, click Initialize.

7 segment or 11 segment fonts are used on a front panel display in a device in parameter mask setting dialog box. When this display is set with a plain text, necessary fonts have to be installed.

Refer to the "Installing Fonts (7 segment/11 segment)" for instructions on how to install fonts.

Chapter 4 TrendMonitor

<u>4.1</u>	The TrendViewer Screen
<u>4.2</u>	TrendViewer Operation Procedures
<u>4.2.1</u>	Starting TrendViewer
4.2.2	Closing TrendViewer
4.2.3	Starting TrendMonitor
4.2.4	Stopping TrendMonitor
4.2.5	PID parameter tuning
<u>4.2.6</u>	Changing parameter setting values
4.2.7	Changing a parameter to monitor
<u>4.2.8</u>	Changing a drawing color of trend graph
<u>4.2.9</u>	Settings for trend graph and a logging
4.2.10	<u>Displaying previously performed trend data</u>
<u>4.2.11</u>	Performing TrendMonitor with previously performed TrendMonitor file

4.1 The TrendViewer Screen

■ Items on TrendViewer screen



Name	Functions
1. Menu bar	Select operations from the menu bar.
2. Toolbar	Displays frequently used operations in the menu bar with buttons.
3. Monitor parameter list	Displays a parameter name to monitor, drawing display color of a trend graph and
	a monitor value
4. Trend graph drawing area for	Displays analog data graph such as a process value or a set point.
analog data	When 👤 mark in the upper graph is dragged while the monitor is down, the
	current monitor value will be displayed on monitor parameter list.
	When a communications error occurs, a large 🚨 mark will be plotted.
5. Trend graph drawing area for	Displays digital data (0/1) graph such as alarm ON/OFF status.
digital data	

6.	Operation	command	Select a device from the operation command execution list, select operation
execu	tion area		commands in the tree, and then click <i>Execute</i> to run operation commands and
			change the device status.

Menu List

Menu	Icon	Subn	nenu	Description
File	Ĕ	Open		Loads a saved trend data file. (*1)
1 ne	Exit			Closes TrendViewer. (*1)
	Tren	Trend	l Setting	Sets a trend graph scale, logging intervals, an output direction folder of trend data file. (*1) (*2)
	+		Add	Adds a parameter to monitor. (*1)
Settings			Deletion	Deletes a parameter to monitor. (*1)
	Ø	Item	Change Color	Changes a drawing display color of trend graph. (*1)
	L.		Change Value	Changes a parameter setting value.
Operation	•	Start]	rt Monitor	Starts monitoring. (*1)A trend data file will be automatically generated.
Operation Stop	Stop 1	Monitor	Stops monitoring.A trend data file will be automatically saved.	
		Fine 7	Funing	Performs fine-tuning.
Options		Send Comr	Open nand	Sends specified commands.
		Help	Contents	Displays the CX-Thermo help screen.
Help	ę	Abou Trend	t IViewer	Explains the newest version of CX-Thermo.

*1 Available only when monitoring is stopped.

*2 A vertical scale in trend graph can be changed while on monitoring.

4.2 **TrendViewer Operation Procedures**

4.2.1 **Starting TrendViewer**

Follow the "Online Connection" procedure to set online and select *TrendMonitor* in the menu bar on CX-Thermo -> 1. TrendViewer.





2. TrendViewer will be started and the screen appears as below.

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Note:

You cannot operate the CX-Thermo screen, while TrendViewer is running.

4.2.2 Closing TrendViewer

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Select *File* in the menu bar on the TrendViewer screen -> *Exit*.

4.2.3 Starting TrendMonitor

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Select *Operation* in the menu bar on the TrendViewer screen -> *Start monitor*.

Reference:

When the monitoring is started, the data will be automatically output to trend data file.

4.2.4 Stopping TrendMonitor

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Select *Operation* in the menu bar on the TrendViewer screen -> *Stop monitor*.

4.2.5 PID parameter tuning

■ Auto-tuning (AT)

1. Select a device to execute auto-tuning.

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2. Click *AT Execute*.

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3. Click *Execute* and auto-tuning in a device will be started.

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770.00 - 700.00 - 700.00	
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45.88	
THE DESCRIPTION OF COMPANY	
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a Atlantic Carrier Car	
and a first a	-
1181 1860 1880 088 1980 1980 1980 1980 1980 1980	
DOU & Thereits	

Reference:

Select AT cancel and click Execute to stop auto-tuning.

■ Fine-tuning

Reference:

When Fine-tuning is executed, CX-Thermo automatically calculates a new PID parameter depending on each command level enterd by users. It can improve control response condition, such as overshoot curving or temperature rise speed.

Note:

Recommend to run fine-tuning after auto-tuning in a device is finished using "Auto-tuning (AT)" instruction. You cannot use fine-tuning for ON/OFF control or for a channel controlled by gradient temperature control.

1339815	PROPERTY OF THE OWNER.	-			
	jaer oper Condend		1000 ml 4225 ml 4225 ml 4005 m	(I. EC. Set Paal (I. EC. Set Paal (I. EC. Prove %ike	130 181
		tag tag para tera	10000 1000 1000 1000 1000 1000 1000 10	Brean (1 ECH-0362.50)	

1. Select *Option* in the menu bar on the TrendViewer screen -> *Fine Tuning*.

2. When the following *Select channel for Fine Tuning* dialog box is displayed, select *Device* and *Channel*, and then click *OK*.

Select Chan	nel for FineTu	Ining	×
Device:	01:E5CN-Q2N	ML-500	•
Channel:	Channel - 1		•
	ОК	Cancel]

3. When the following *Fine Tuning* dialog box is displayed, move the mouse pointer to the circle graph that sets fine-tuning level and click it or drag it. The fine-tuning allows to select up to two commands to improve from *Reduce overshoot*, *Increase speed* and *Inprove stability*.

Fixe Taxing			2
Haduce overshoot			
	Reduce overfloat.	0	
	factorian speed	0	
	Improve stability	0	
	Execute]	
	E.e		
Increase good Improve stability			

4. After tuning level is entered, click *Execute* to set a new PID parameter in a device.



4.2.6 Changing a parameter setting value

1. Double-click the parameter in monitoring parameter list to change a parameter setting value.

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3010	Denne RIENCH-QEMI-300	
19000 35-00 4126-00 19000 19000 19000 19000	Consensations Write All Perform All Perform All Perform All Perform All Perform All Perform All Perform	
	AT Casel	

2. When the following *Change Value* dialog box is displayed, enter *New Data* and then click *Send*.

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00			
		100	
iend	Close		
	00	00	00 100 ead Close

4.2.7 Changing parameters to monitor

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1000 10000 1000 <t< th=""><th></th><th>Change Odr, Thange Yoka</th><th></th><th>- 022 - 118 - 025 - 025 - 026 - 026</th><th></th><th>EC.</th><th>Parose Vela</th><th>141</th></t<>		Change Odr, Thange Yoka		- 022 - 118 - 025 - 025 - 026 - 026		EC.	Parose Vela	141
1900 1900				380	I Drie	TIER	H-03M1-308	
	1441 1441 A 14272 14482 143		and the t	- 1900 231-3 - 4.120 -			estandone Vetag INTOP RaciteCasel OS AT Bersh INS AT Result AT Greek AT Greek	1

1. Select *Settings* in the menu bar on the TrendViewer screen -> *Item* -> *Add*.

2. When the following box *Add Parameter* dialog is displayed, select a device (see 1), check a checkbox on a parameter name (see 2) to choose which parameter to monitor, and then click *Add Monitor parameter*. (see 3).

01 f	wie Driete Dreier	Aims Val Alams Val Proportion Values VV	n I n Upper Linut I n Lower Linut I n 2 n Upper Linut 2 n Lower Linut 2 n 3 n Upper Linut 3 n Lower Linut 3 al Band	(3)	Read Write Read Write
	Part number		Parameter same		
(a.	TRANSFORMENT DOOL		Set Point		
la. L	E3GDI-Q2D0L-300		Deserves Halter		
{a. L L	ESCN-Q2ML-300		LIDCESE APRe		

3. The checked parameter will be added in the *Monitor Parameter* list.

Device Uniterconceptualization		Parameter sene Alam Valus 1 Alam Valus 1 Alam Valus Upper Limit 1 Alam Valus 2 Alam Valus 2 Propertional Band Latepol Tame Propertional Band	Property Read/With Read/With Read/With Read/With Read/With Read/With Read/With Read/With Read/With Read/With Read/With Read/With Read/With Read/With Read/With Read/With Read/With		
Add	www.			Add Minutor parameter	
Hq. 11 11	Pet sonter ESCH COME SIG ESCH-COME SIG ESCH COME SIG	Promotive Indus Set Point Provide Value Witten Webs Oppositional A	Þ		

Reference:

Up to 127 parameters can be monitored.

To monitor a parameter in other device with a different unit number, follow the steps below.

1. Click *Add Device* in the *Add parameter* dialog box.

Add Divers Link (1999) Dealth preserver No. Pet seafer 11 EVH QBML-300 Set Paint 11 EVH-QBML-300 Process Value 11 EVH-QBML-300 Alasas Value Opper Land 2	Desix Unrescuenzami.com			Vertrefer seen Valen Volke 1 Unen Volke Upper Limit 1 Onten Volke 2 Unen Volke 2 Unen Volke Lower Limit 2 Unen Volke Upper Limit 3 Unen Volke Upper Limit 3 Upper Limit 3 Upper Limit 3 Upper Limit 4 Upper Limit 4	Property Desd'With Reed/With Reed/With Read/With Read/With Read/With Read/With Read/With Read/With Read/With Read/With Read/With Read/With		
No. Ped studier Peanselet state II ESCH QUAL 300 Set Paint II ESCH-QUAL 300 Prover Value II ESCH-QUAL 300 Nation Value Opper Land 2	Add D	entra de la constante de la co	1		Add Manator panewise		
EXCH QUML-380 Set Paper EXCH-QUML-380 Process Value EXCH-QUML-380 Value EXCH-QUML-380 Value Val	147.	Pert marker		Furnition		F	
11 EVCH-QUML-300 Proves Vulue 11 EVCH-QUML-300 Alass, Vulue Opper Land 2	11	ESCH COME-580		Set Psiat		1	
	EI	EXCH-QUML-SID EXCH-QUML-SID		Provide Value Alaan Value Opper Land 2			

2. When the following *Device select* dialog box is displayed, Select *Unit number* and click *OK*.

ESAR -		
CSAIL-DO (3DWW-FLK	*	Select Pert Norther
1		OK
	ETAR 2	EPAR -

3. The device will be added.

		Person	IT MEN	Property 2		
Add Device Deble Device		Beck 0 PtD 1 PtD 1 PtD 1 PtD 1 PtD 1	Alam Wale 1-DH. Alam Upper Last Wale 1-CH1 Man Upper Last Wale 1-CH1 Man Upper Last Wale 2-CH1 Man Upper Last Wale 2-CH1 Mans Lower Last Wale 2-CH1 envite Lower CH1 envite The -CH1 envite The -CH1	BactVicts RectVicts ReadVicts ReadVicts ReadVicts ReadVicts ReadVicts ReadVicts ReadVicts ReadVicts		
Add Dr	Vizie Delete Device	H MD 24	reportenti Panti - 1911 a se i me - 1911	Add Miniber passwelst		
Add De	esserier		ngoo kong Bandi (201 A water (201)	Add Minder pascole		
Add De foathr p	Example		Puerren der	Add Mindler paraceter		
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4.2.8 Changing a drawing color of trend graph

1. Select a parameter on the monitor parameter list to change a drawing display color.



2. Select *Settings* in the menu bar on the TrendViewer screen -> *Item* -> *Change Color*.

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۱		BUB CHI	107
	+ 1 1 1 7	Bacale	

3. When the following *Color* dialog box is displayed, select a color and click *OK*.



4.2.9 Settings for trend graph and a logging

1. Select *Settings* in the menu bar on the TrendViewer screen -> *Trend settings*.

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	E STOP : CHE
	NUS CHI

2. When the following dialog box *Trend Settings* is displayed, set *Vertical axis Scale*, *Time Scale*, and *Logging settings* and then click *OK*.

A surger and some					
Minimus:	-200				
Mazinoma:	100				
Time Scale					
Scale interval:	1	8			
Logging settings					
Logging interval:	1	5			
Output folder of tread d	ata file:				
C:Program Files/OMR0	ONICX-One	CX-Th	0880	Bo	owse

Note:

You may not be able to collect the data in specified logging intervals, depending on operating conditions (such as computer processing speed, communications speed, a number of parameter to monitor, or communications retry). In such case, the data will be collected with the shortest intervals in the use environment.

Reference:

- The logging intervals can be set from 1 to 7200 seconds.
- The trend data file that is set in the *Output folder of the trend data file* would be saved in the "LOGFILEyyyymmddhhmmss.txt" format.

For instance, a file generated at 1:23PM with 45seconds on January 2nd 2007 would be saved as "LOGFILE20070102012345.txt".

- A defaulted trend data file would be saved in "C:\Program Files\OMRON\CX-One\CX-Thermo\Log".
- A new trend data file will be created every two hours.
- A trend data file is a tab-deliminated text file.

Follow the Graph display on a trend data file in Microsoft Excel instruction to create a graph display in Microsoft Excel.

4.2.10 Displaying previously performed trend data

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		+ 1		

1. Select *File* in the menu bar on the TrendViewer screen -> *Open*.

2. When the *Open* dialog box is displayed, select trend data file -> click *Open*.

Open			? X
Look in: 🔁	Log	- + 🗉 (÷ 🖬 •
LOGFILE2	0071102165122		
File name:	LOGFILE 20071102165122		Dpen
Files of type:	tot Files (".tot)		Cancel

3. A trend data file will be loaded.



4.2.11 Performing TrendMonitor with previously performed TrendMonitor file

1. Follow the steps in Displaying previously performed trend data to load a trend data file.



2. Select *Operation* in the menu bar on the TrendViewer screen -> *Start Monitor*.



Chapter 5 Other Information

- 5.1 Precaution for Use
- 5.2 Installing Fonts (7 segment/11 segment)
- 5.3 Graph display on a trend data file in Microsoft Excel
- 5.4 How to install a driver when using a USB cable

5.1 Precaution for Use

- Refer to the *Install Guide* supplied with this software for information on how to install and uninstall.
- The CX-Thermo Software does not load the parameter file in ThermoTools software. The mutually supported models can be converted into a file for CX-Thermo by using the *FileConversion* software. To start the *FileConversion*, select *Program* in *Start* menu in Microsoft Windows -> *Omron -> CX-One -> CX-Thermo -> FileConvEST2*.
- TrendViewer has an easy logging system that can record up to 2 hours to adjust the control parameter such as PID parameter.

When collecting continuous data for prolonged periods of time, the amount of time to collect is different depending on the computer hardware specifications (such as amount of memory and free hard disc space). A new trend data file is created every two hours.

- Do not unplug a USB cable while online. CX-Thermo must be offline to unplug a USB cable. CX-Thermo does not restore online status by just plugging back in a USB cable. CX-Thermo must be offline once, plug back in a USB cable and then connect CX-Thermo to online again.
- When other model is connected on the same communications line with E5ZN, the last digit of hexadecimal term in unit number must be a different number.

If the last digit of hexadecimal term in unit number is duplicated, CX-Thermo may not operate normally.

5.2 Installing Fonts (7 segment/11 segment)

7 segment or 11 segment fonts are used to display front panel on a device on CX-Thermo data file in HTML format or the parameter mask setting dialog box. When this display is set with a plain text, necessary fonts have to be installed as explained below.

- 1. Select *Settings* in *Start* menu in Microsoft Windows -> *Control Panel*.
- 2. Double-click the *Fonts* icon.



3. Click *File* in the menu bar -> *Install New Font*.



4. The following dialog box *Add Fonts* will be displayed.

Add Fonts		×
List of fonts:		ОК
No fonts found.		Close
	~	Select All
Folders: c:\windows	Drives:	
C:\ C:\ C:\ C:\ C:\ C:\ C:\ C:\		Network
assembly		

- 5. Insert CX-Thermo CD into CD-ROM drive and select CX-Thermo CD in *Drives*.
- 6. Select *DF7seg* and *DF11seg* in the *List of fonts*, and then click *OK*.

5.3 Graph display on a trend data file in Microsoft Excel

Refer to this instruction for graph display or analysis on a trend data file in Microsoft Excel graph.

- 1. Start Microsoft Excel and click *File* in the menu bar -> *Open*.
- 2. Select *All Files* in the *Files of type*, select trend data, and then click *Open*.



3. A trend data file in Microsoft Excel will be loaded.

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10 2007/11/02_10 27 20				100			1					
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78 2002/11/22 18 27 41	10			COL.			- [-				-	
M 2010/1102 18 27 42	18			10.			1	-			-	
20 20 20 20 1822 18 27 44	10			100		0	1					
Bu 2007/01/02 18:27:45	100	0		18.			1					
27 2007/11/02 18:27 48	100	0		085								
381 2007/11/02 18 27 47	100	0	1	085			1.					
281 2807/1102 18 27 48	100	0		065								
#312807/1182 18 27 49	100			08.								
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12 2007/11/02 18:27 61	100	0 0		00-			- k.					
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Each data defines as follows;

- 5th line: monitored parameter unit number
- 6th line: monitored parameter in Part number
- 7th line: monitored parameter name
- 9th line: time and monitor value

4. Create a graph using above data. (Refer to the Microsoft Excel help for instructions)



5.4 How to install a driver when using a USB cable

When E58-CIFQ1, E58-CIFIR, or K3SC and a USB cable is used to connect a device with a computer, driver is required.

This section explains the procedures to use a USB cable for the first time. The installation procedures differ depending on computer operating system. The following procedures are explained for Windows XP.

- 1. Connect E58-CIFQ1 or E58-CIFIR to a USB port in a computer. For K3SC, turn on the power, connect a USB port in K3SC and a USB port in a computer with a USB cable.
- 2. When the following screen is displayed, select *Inatall from a list or specified location* and click *Next*.



3. When the following screen is displayed, make sure that the below directory is displayed in *Include this location in the search* and click *Next*.

For E58-CIFQ1, C:\Program Files\OMRON\Drivers\USB\E58-CIFQ1 For E58-CIFIR, C:\Program Files\OMRON\Drivers\USB\E58-CIFIR For K3SC, C:\Program Files\OMRON\Drivers\USB\K3SC



4. If the screen below appears, click *Continue Anyway*.

Hardware Installation		
1	The software you are installing for this hardware: OMRON E58-CIFQ1 has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.	
	Continue Anyway STOP Installation	

5. When the installing of a driver is finished normally, the following screen will be displayed. Click *Finish*.

Found New Hardware Wizard		
	Completing the Found New Hardware Wizard The wizard has finished installing the software for OMRON E58-CIFQ1 The hardware you installed will not work until you restart your computer.	
	Click Finish to close the wizard.	
	Caricel	

6. For E58-CIFQ1 or E58-CIFIR, the screen same as 2 will be displayed and then follow the procedures from 3 to 5 for installation.