新商品資訊

**OMRON**

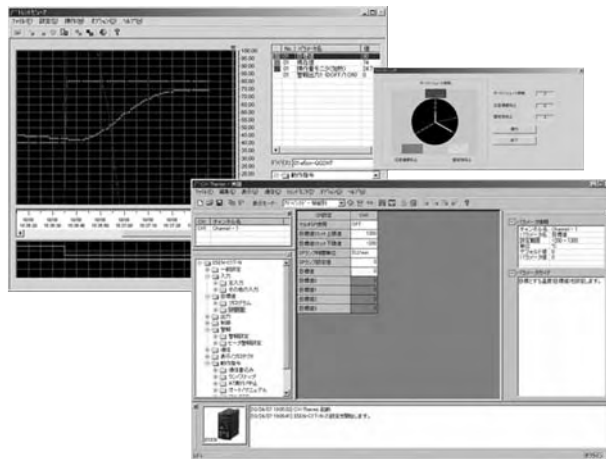支援軟體CX-Thermo (CX Thermo) Ver.4.0

# EST2-2C-MV4

**EJ1型、E5ZN型、E5CN/E5CN-H型、E5EN/E5EN-H型、E5AN/E5AN-H型、E5ER/E5ER-T型、E5AR/E5AR-T型專用支援軟體。**

**可設定參數、調整裝置以及縮短維修時間**

**CX-One**

- 可使用PC編輯參數並進行一次性下載。
  可減少設定參數所需的工時。
  Ver.4.0以後的版本即可使用試算表格式來編輯參數，更進一步提高使用時的方便性。

- 可進行**趨勢監控**。
  可監控最多31台(EJ1N型：最多64台、EJ1G型：最多17台、E5ZN型：最多16台)的資料(現在值·目標值·操作量·PID參數·警報ON/OFF等)。

- 支援參數遮罩功能(可將不需要顯示的參數關閉)。
  僅限於E5CN/E5CN-H型、E5EN/E5EN-H型、E5AN/E5AN-H型、E5ER/E5ER-T型、E5AR/E5AR-T型

- 可使用簡易演算功能(亦即輸入外部接點/狀態，並將AND/OR邏輯演算及定時器組合後變更動作狀態，或是輸出至外部之功能)。
  僅限於E5CN/E5CN-H型、E5EN/E5EN-H型、E5AN/E5AN-H型

- 可利用微調*功能輕鬆調整控制功能。

  ＊所謂微調功能係指針對於「希望稍微降低溫度過高(Overshoot)的狀態」、「希望提高啟動速度」等控制的回應狀態，只要直接輸入改善要求，即可由CX-Thermo自動根據要求的程度，計算出PID參數的一種功能。

**NEW**

## 種類 (交貨日期請向經銷商洽詢。)

| 名稱 | 型式 |
|---|---|
| 支援軟體CX-Thermo (CX Thermo) | **EST2-2C-MV4型** |

註. FA整合工具套件 **CX-One** 包含CX-Thermo，詳細內容請參閱CX-One型錄(型錄編號：SBCZ-006)。

## 規格

| 對應機種 | | ・ E5CN型(2004年4月更新後之機型)<br>・ E5EN型、E5AN型(2005年2月更新後之機型)<br>・ E5CN-H型、E5EN-H型、E5AN-H型<br>・ E5ER型、E5AR型<br>・ E5ER-T型、E5AR-T型<br>・ E5ZN型<br>・ EJ1N-TC4型、EJ1N-TC2型、EJ1N-HFU型<br>・ EJ1G-TC4型、EJ1G-TC2型、EJ1G-HFU型<br>・ G3ZA型(連接至EJ1N-TC4型、EJ1N-TC2型、EJ1G-TC4型、EJ1G-TC2型時)<br>註. DeviceNet通訊型除外 |
|---|---|---|
| 可使用之PC | OS | Microsoft Windows 2000 (Service Pack 3以後版本)/XP/Vista (日文版、英文版) |
| | CPU | Pentium 300MHz以上 |
| | 記憶體 | 128MB以上 |
| | 硬碟容量 | 300MB以上的空間 |
| | CD-ROM光碟機 | 1台以上 |
| | 顯示器 | SVGA (800 x 600像素)以上 |
| | 通訊埠 | 1個以上的RS-232C埠或USB埠 |
| 連接方式 | | ・ 可使用USB-序列埠連接線E58-CIFQ1型來連接PC與E5CN型、E5EN型、E5AN型、E5CN-H型、E5EN-H型、E5AN-H型、EJ1型之設定工具專用連接埠<br>・ 可透過通訊轉接器K3SC型來連接PC與RS-422/RS-485型<br>・ 透過USB-紅外線連接線E58-CIFIR型，以無線的方式來連接與附紅外線通訊功能型(E5EN-H型、E5AN-H型) |

**OMRON**

# ThermoTools

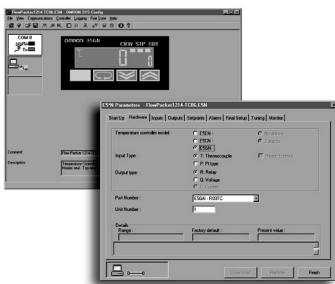**The clever way to configure your
industrial control components**

## ■ Supporting your needs

Programmable industrial control components are becoming more and more advanced. As the world's largest supplier of temperature and process controllers, Omron naturally takes a leading role in this field. In addition to the 'basic' control functions, modern controllers must be capable to perform much more advanced and high level functions as well.

As functionality increases, the number of parameters that must be programmed in general purpose controllers already exceeds over 100 parameters. This requires significant programming time during the installation, especially if you have a large number of applications and use a variety of controllers. Omron recognises that today's temperature and process controllers and signal processing instrumentation require advanced software tools to support you and help you save valuable set up time. The advanced ThermoTools software package has been designed to reduce your installation, programming and testing time significantly!

## ■ ThermoTools

ThermoTools is an advanced software support package for Omron temperature controllers, process controllers and a selection of other panel instruments that exploits state-of-the-art ActiveX® technology.

The ThermoTools software provides an extensive range of functions to set up, configure and monitor Omron industrial control components equipment.
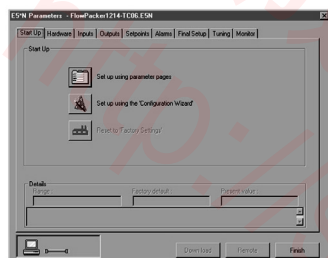
Easy file handling and printing facilities help you to record your valuable process data and parameter lists for use in installation, maintenance and quality assurance documentation.

**ThermoTools**    1

# ■ ThermoTools supported products

A large range of 'digital programmable products' is supported by ThermoTools, and more will follow.

| Supported hardware products | |
| --- | --- |
| **E5*N series, Basic Temperature controller line:**<br>E5GN, E5CN, E5EN and E5AN | Temperature controllers and Process controllers |
| **E5*K series, Advanced Process and Temperature line:**<br>Standard controller models: E5CK, E5EK and E5AK<br>Programmable controller models: E5CK-T, E5EK-T and E5AK -T | |
| **E5*R series, Advanced Process and Temperature Controller line:**<br>E5ER and E5AR | |
| **E5ZN, Compact multi-loop controller**<br>All E5ZN models | |
| **E5ZE series, Compact multi-loop controller line:**<br>All E5ZE models | |
| **K3N series: Advanced line of Intelligent Signal Processors**<br>K3NC, K3NH, K3NP, K3NR, K3NV, K3NX, K3GN and H8GN | Panel meters, Timers and Counters |

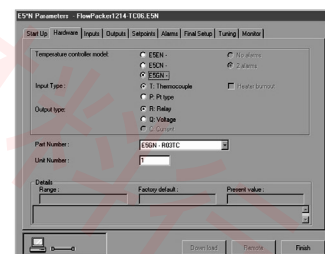# ■ Simple yet advanced at the same time...



ThermoTools is equipped with extended help functionality, that covers everything from getting started to becoming familiar with the advanced functionality. The 'configuration wizard' can be used to configure controllers for 'basic' applications. The wizard will ask you a sequence of questions about the type of controller set up that you require based on the most commonly used parameters. This allows you to create a quick and easy set up.
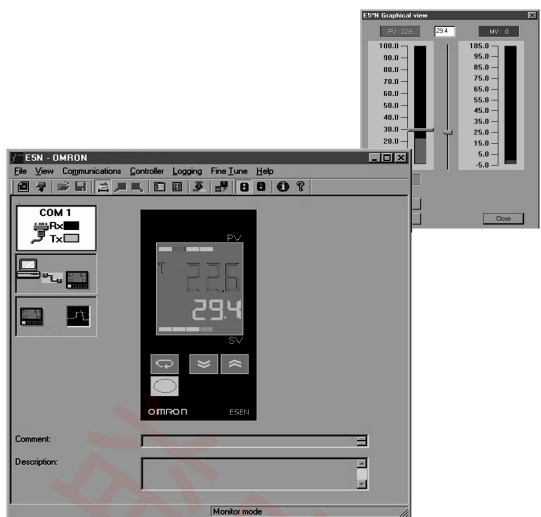
# ■ All parameters at your fingertips

The ThermoTools components use a series of tabs to display information regarding the controller parameters, all sorted in a very logical order, making each parameter easy to find.



Even if no device is connected you are still able to edit, save and load parameter sets. If a device is connected, two modes are available; the configuration mode and the monitoring mode. In configuration mode, parameter sets may be downloaded to, and uploaded from, the controller. Parameter sets can also be saved to store your settings, for use on other applications. In this way you can create a library for your applications and their settings. Listing details of the machine, customer or application can be done in the notes section, for quick and easy recognition or retrieval. If required you can also reset all parameter values in the controller back to their factory defaults by pressing the 'Reset to factory settings' button.
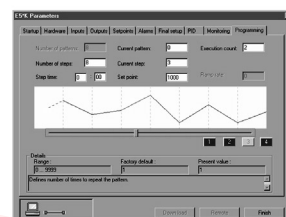
# ■ Speeding up installation

The parameter pages allow you to rapidly make all the necessary settings for your application. With the versatile monitoring functions you can check, test and modify the operation of your application instantly.

Your PC can be used to display the controller front and with the graphical view you can also monitor in bar graph format the active setpoint, process and output values.
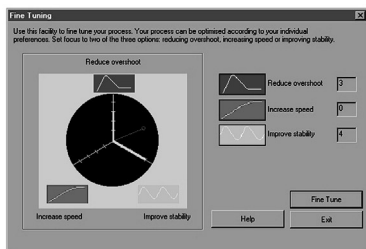
# ■ Full support

Depending on the controller that is connected to your PC, the functions of ThermoTools change instantly, allowing access to all functions available for that model. Full support is included for the whole functionality of the selected product, so that maximum product capabilities are at your disposal.

For example: When using the E5K-T programmable controllers, the 'recipes' can be set, numerically and seen graphically. Once these are set changes to the 'Ramp's and Soak's' can be made easily by selecting that particular step. Also the versatile K3N series signal processors are fully supported. ThermoTools supports several different types of file handling functions: saving, loading, exporting to CSV or HTML format. ThermoTools also supports the saving of full sets of parameter values to a controller-family specific file. These files can then be copied, loaded and run by the ThermoTools application. A paper copy of the parameters can be printed. Either as a list of all parameters or only the parameters that have been changed compared to the factory default. Your project, application or quality documentation can than be easily created and maintained.
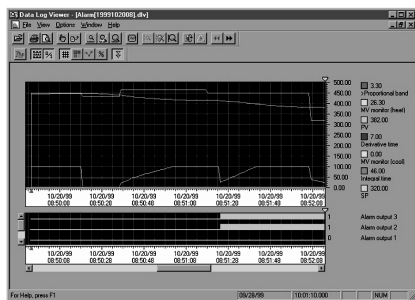
# ■ Including many advanced functions

ThermoTools does not only allow you to upload or download and store your parameters, but also offers several advanced functions.

# ■ Personal fine-tuning

All modern controllers from Omron can perform Auto-tuning, which will tune the PID parameters for a 'standard preferred performance'. Due to our vast experience with controllers, we were able to incorporate a knowledge-based functionality that enables you to further fine-tune your process to a greater level of detail. You can give more emphasis to reduce the over-shoot, increase the speed or improve stability. Though these three parameters are in contradiction with each other you can even combine two of these parameters to improve your process according to the precise needs of your application or customer requirements!

# ■ Logging and trending facilities



ThermoTools offers you a very sophisticated logging function and data log viewer. ThermoTools allows you to select which parameters need to be logged, for how long, at what rate and within what limits. The data log viewer then allows viewing of the logged data including live updates, zoom and printing facilities. The log files can be exported to CSV format usable in other packages or applications.

Contact your local Omron representative office to discover the full functionality of this advanced software package.

# ■ Simple to use, yet advanced Software, for advanced products

The ThermoTools software package offers you the following main functionality:

☞ Off-line configuration mode with full upload and download capability and on-line monitoring mode for more precise adjustments.

☞ Sophisticated 'live logging and trending' facility for testing and recording key parameter values.

☞ File handling to save instrument configurations in several different file formats; a ThermoTools file (for rapid instrument cloning), a spreadsheet or an HTML file.

☞ Auto-tuning as well as a 'personal fine-tuning' facility for optimisation of advanced PID parameters according to your specific process response preferences.

☞ Remote configuration of multiple Omron controllers and intelligent signal processors when utilising a multi-drop protocol (RS422/RS485) in an easy-to-use Windows based package.

☞ 'Configuration Wizard' providing instrument configuration, suitable for users of all levels.

☞ Multi-loop support for the E5ZE, E5ZN and E5□R temperature controllers including a 'Replication' function for you to copy parameter values between control points and memory banks.

☞ Comprehensive help system, including introduction to the Omron control components.

# ■ The right software & the right hardware... your IDEAL combination.

Combining ThermoTools software with OMRON controllers and intelligent signal processors enables you not only to easily configure our advanced equipment saving valuable set-up time when installing, configuring or commissioning, it will also help you to store all your important process parameters, copy them to other controllers for multiple applications and to make use of the maximum capabilities of your products.

# Technical specifications

| PC requirements |
| --- |
| MS Windows. Recommended: Windows2000 |
| Pentium 133 MHz |
| 64 MB |
| 650 MB Space |
| CD-ROM Drive |
| SVGA (800x600). Recommended: XGA (1024x768), High-color (16bit) |
| RS-232C port, COM1 – COM4, (USB port can be used when use K3CS) |

Cat. No. H01E-EN-01     **In the interest of product improvement, specifications are subject to change without notice.**

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