

## CX-Programmer

Enhanced Design and Development Environment



### ■ Applications

Omron's CX-Programmer makes working with a PLC so easy.

#### With CX-Programmer, You Can Do All This and More

- Develop, write, modify and debug programs online/offline.
- Import and upgrade existing legacy programs (used in older Omron programming packages) using the file conversion utility.
- Setup hardware.
- Setup and perform communications.
- Setup PLC networks.
- Perform diagnostics, testing and debugging.
- Monitor data and networks.
- Generate reports.
- Share tag data with other CX-Automation Suite products.

### ■ Specifications

Description	Operating system	Part number
CX-Programmer, full version single license, with manuals	Microsoft Windows: XP, 2000, NT 4.0 (service pack 3+), 98	WS02-CXPC1-EV□.□
CX-Programmer, full version 3-pack license, with manuals	Microsoft Windows: XP, 2000, NT 4.0 (service pack 3+), 98	WS02-CXPC1-EL03-V□.□
CX-Programmer, full version 10-pack license, with manuals	Microsoft Windows: XP, 2000, NT 4.0 (service pack 3+), 98	WS02-CXPC1-EL10-V□.□
CX-Programmer, trial version, runs for 30 days	Microsoft Windows: XP, 2000, NT 4.0 (service pack 3+), 98	WS02-CXPC1-ETR-V□.□

For ALL Omron PLCs, CX-Programmer is the software program to learn; anything else is a waste of time and money.

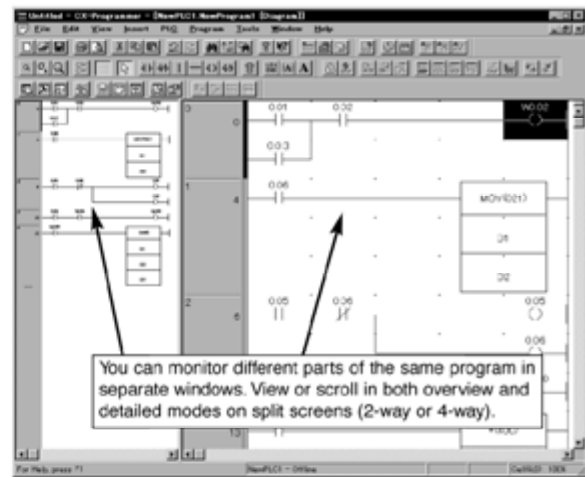
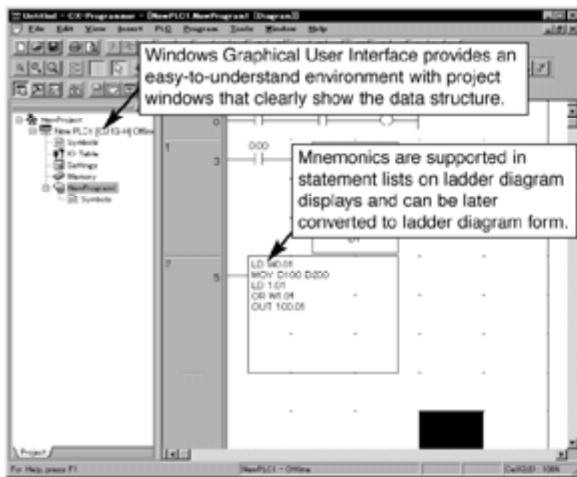
CX-Programmer structure offers flexibility in managing programs. It's Windows Explorer® style interface makes the task of creating logic programs easy. Multiple window displays, tree style overviews, "watch and output" windows, and standard Windows® menus all help to make it simple and intuitive to use.

It's packed with powerful features like support for legacy Omron programming software — you can import PLC programs created in SYSWIN, CPT, SSS, CVSS, and LSS directly; perform advance diagnostics; you can *trace data* and run *timing charts* or setup network routing tables and much more.

### ■ Key Features

- Program all Omron Controllers and support network setup in one package.
- Programming software is compatible with Windows® 95/98/NT4.0 Systems 2000/XP. (Note that CX-Programmer version 3.0+ is needed for Windows® XP compatibility.)
- Built-in CX-Net and CX-Server network configuration utilities simplify communications between PLCs and PCs.

*CX-Programmer Provides a Wealth of Functionality in an Efficient and Intuitive Environment*



### ■ Easy Operation

- Operate either with or without using a mouse.
- Windows Explorer® style interface.
- Enter input/output instructions with function keys.
- Advanced Find/Replace functions.
- Display operand input ranges.
- Convert text inputs to ladder diagrams. Either enter mnemonics into ladder diagram displays or convert text from text editors.
- Import/export I/O data to MS Excel.
- Program with I/O tags (names) rather than specific addresses.

### ■ Numerous Display and Monitoring Options

- Monitor present values of specified addresses.
- Watch Windows enable monitoring of specific address locations.
- Output Windows can display: errors, search results, file read errors, and program comparison results.

### ■ Data Compatibility with Windows Applications

- Import I/O table data such as name, address, and I/O comments from Microsoft® Excel spreadsheets.

### ■ Flexible Maintenance Functions

- Force-setting/resetting.
- Differential monitoring.
- Timer/Counter set value changes.
- Cross-references.
- Data trace and time chart monitoring.
- Online editing of multiple locations and controllers.
- Online editing of different tasks from different computers.

### ■ Remote Programming and Monitoring

- Access any PLC located on a network from a single location (single port multiple access).
- Access remote PLCs via modem connections.
- Store/read CPU data (programs, parameters, memory contents, or comments) in memory files on optional Flash memory Cards or built-in data file (EM) file memory.
- Display time-stamped error histories (including user-generated error logs) from the CPU.
- Protect programs for access using passwords.

## CX-Programmer

### ■ Import/Export I/O Allocations, Comments and Symbol Names Using Microsoft® Excel

Reduce costs of program development with Microsoft® Excel.

I/O tables, including symbols, address and I/O comments can be copied and pasted directly from CX-Programmer to MS Excel or from MS Excel to CX-Programmer.

**Microsoft® Excel Spreadsheet**

**Numeric table in CX-Programmer**

**1. Copy I/O allocation tables and other data with MS-Excel.**

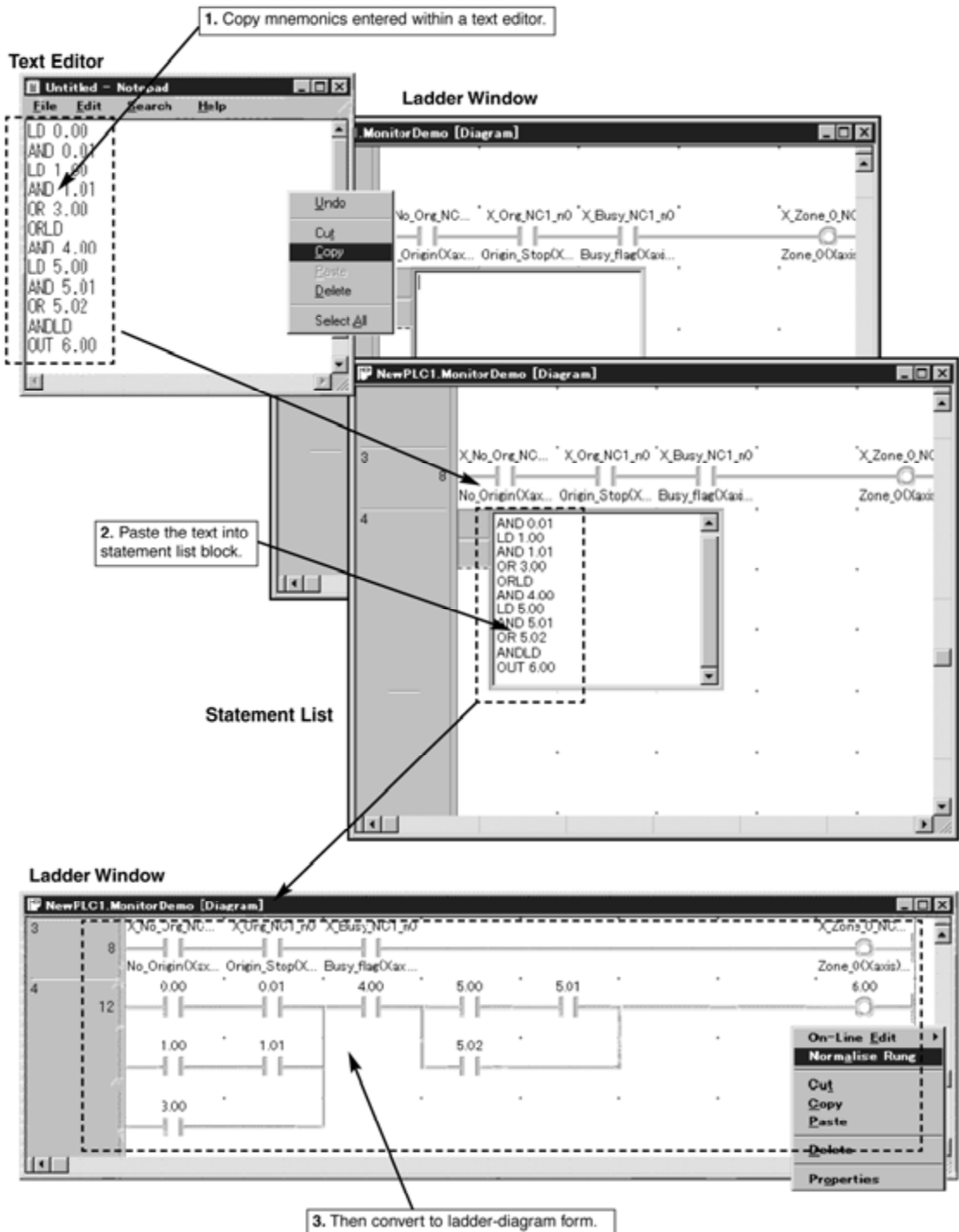
I/O Symbol	Address	I/O comment
X Seq Valid_NC1_n0	2000.0C	Sequence_NO_Valid(Memory_Opr)(Xaxis)
X Act_NC1_n0	2000.01	Activation(Memory_Opr)(Xaxis)(Unit No.0)
X Alone_Act_NC1_n0	2000.02	Standalone_Activation(Memory_Opr)(Xaxis)(Unit No.0)
X Abs_Cmnd_NC1_n0	2000.0E	Abs_Command(Direct_Opr)(Xaxis)(Unit No.0)
X Inc_Cmnd_NC1_n0	2000.04	Inc_Command(Direct_Opr)(Xaxis)(Unit No.0)
X Int_Fix_Feed_NC1_n0	2000.02	IntErrpt_Fixed_Length_Feed(Direct_Opr)(Xaxis)(Unit No.0)
X Org_Srch_NC1_n0	2000.0E	Origin_Search(Xaxis)(Unit No.0)
X Org_Ret_NC1_n0	2000.07	Origin_Return(Xaxis)(Unit No.0)
X Preset_NC1_n0	2000.0E	Present_Position_Preset(Xaxis)(Unit No.0)
X Jog_NC1_n0	2000.0E	Jog_Feed(Xaxis)(Unit No.0)
X J_Dir_NC1_n0	2000.1C	Jog_Direction_setting(Xaxis)(Unit No.0)
X Teaching_NC1_n0	2000.11	Teaching(Xaxis)(Unit No.0)
X Puls_Inh_Rel_NC1_n0	2000.12	Pulse_Out_Inhibit_Release(Xaxis)(Unit No.0)
X Err_Reset_NC1_n0	2000.1E	ErrCounter_ResetOutput/Origin_adjust_Outp...
X Override_NC1_n0	2000.14	Override_Valds(Xaxis)(Unit No.0)
X Decel_Stop_NC1_n0	2000.1E	Decel_Stop(Xaxis)(Unit No.0)
X Compul_Act_NC1_n0	2001.0E	Compulsory_Activator(Xaxis)(Unit No.0)
X Data_Write_NC1_n0	2001.1E	Data_Write(Xaxis)(Unit No.0)

**2. Paste the data into a numeric table.**

**3. Select from the numeric table when entering instruction operands. Use the presearch function to make program development even easier.**

■ Create Programs with a Text Editor

Mnemonic programs can be created with any standard text editor, such as Notepad, and then pasted into CX-Programmer as a statement list to be used as part of the program. Switch between statement list or ladder logic display format with a click of the mouse.



## CX-Programmer

### ■ Use Automatic Address Allocations for Increased Flexibility

CX-Programmer can automatically allocate I/O addresses. Assign a memory block size to any of the available data types, and CX-Programmer will auto allocate and increment addresses with the block.

**Local or Global Variable Table**

1. Enter symbols into the variable table, omitting specific addresses.

Name	Type	Address/Value	Block Location	Usage	Comment
module1	BOOL	W0.00 [Auto]		Work	execution module1
module2	BOOL	W0.01 [Auto]		Work	execution module2
LS1	BOOL	0.00		Work	limit SW1
LS2	BOOL	0.01		Work	limit SW2

**Automatic Address Allocation Dialog Box**

PLC Automatic Memory Allocation

Automatic allocation allows work symbols to be automatically assigned an address. The address range from which to assign these can be set below.

Use automatic allocation

Start address: W0

Length (channels): 100

2. Specify allocation word ranges in the automatic address allocation dialog box.

3. Addresses will be automatically allocated to local or global variables memory areas.

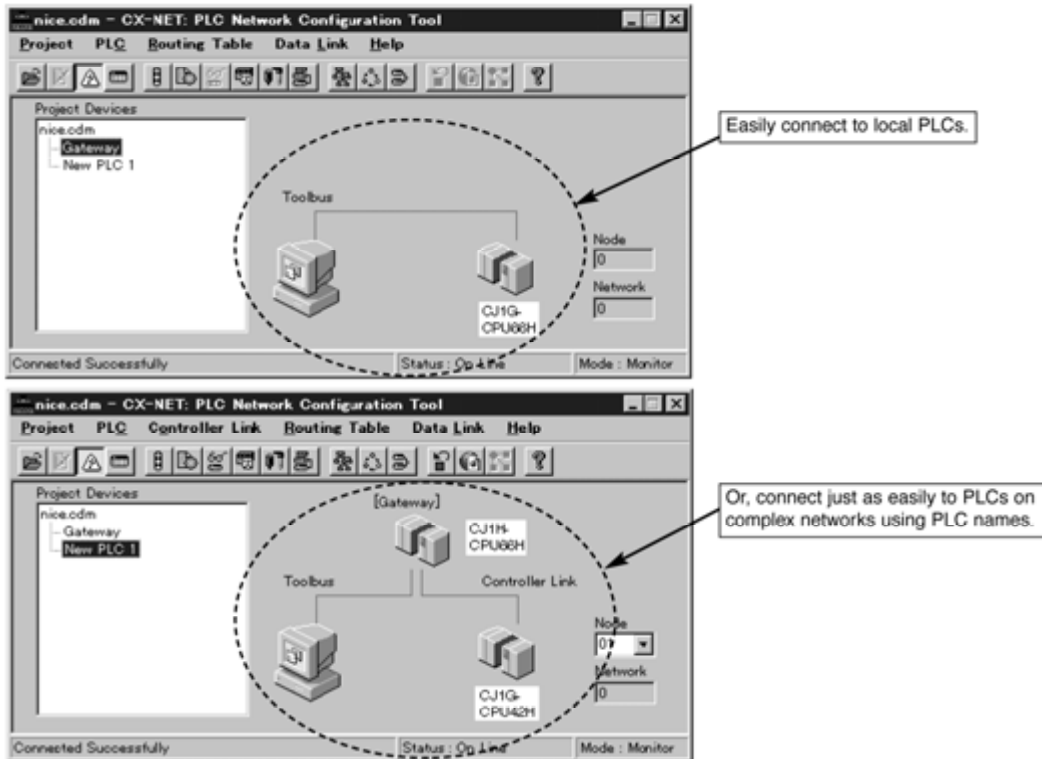
**■ Network Configurations Made Easy**

Configuring a network of PLCs couldn't be easier, with the CX-NET network configuration tool, setup PLC network routing tables, I/O tables, and data link tables.

Quickly connect to any PLC on the network.

From any single location along the network using Omron's single-port multiple-access (SPMA) technology, you can:

- See devices present on the network.
- Run network diagnostics.
- Create and transfer network routing and data link tables.



ALL DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters into inches, divide by 25.4

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**OMRON.****OMRON ELECTRONICS LLC**

One East Commerce Drive  
Schaumburg, IL 60173

**847-843-7900**

For US technical support or other inquiries:

**800-556-6766****OMRON CANADA, INC.**

885 Milner Avenue  
Toronto, Ontario M1B 5V8

**416-286-6465****OMRON ON-LINE**

Global - <http://www.omron.com>

USA - <http://www.omron.com/oei>

Canada - <http://www.omron.com/oci>