FA Integrated Tool Package CX-One

CX-Programmer Ver.9

CSM_CX-Programmer_DS_E_11_10

Improve Productivity for SYSMAC PLCs from Ladder Program Development and Unit Setup to Debugging and Maintenance

- Application software to create and debug programs for SYSMAC CS/CJ/CP/NSJ-series ✻1, C-series, and CVM1/C-series CPU Units.

Note: The CX-Programmer is included in the CX-One FA Integrated Tool Package.
✻1. NSJ-series is no longer available to order.

Features

- Easily Achieve Position Control with Wading Through User Manuals.
- Complete Support for Synchronous Operation between Units.
- Easier Connection to PLCs.
- Batch Backup/Restore with a Computer.
- Comprehensive Programming Environment.
- High Program Readability.
- Time Required for Onsite Startup and Debugging Has Been Significantly Reduced.

Ordering Information

Support Software

Product name	Specifications			Model
		Number of licenses	Media	
FA Integrated Tool Package CX-One Ver.4.□	The CX-One is a package that integrates the Support Software for OMRON PLCs and components. CX-One Ver.4.□ includes CX-Programmer.	1 license ✻	DVD	**CXONE-AL01D-V4**
FA Integrated Tool Package CX-One Lite Ver.4.□	CX-One Lite is a subset of the complete CX-One package that provides only the Support Software required for micro PLC applications. CX-One Lite Ver.4.□ includes Micro PLC Edition CX-Programmer.	1 license	DVD	**CXONE-LT01D-V4**

Note: 1. For details, refer to the CX-One Catalog (Cat. No. R134), visit your local OMRON website.
2. The CX-One and CX-One Lite cannot be simultaneously installed on the same computer.
✻ Multi licenses (3, 10, 30, or 50 licenses) and DVD media without licenses are also available for the CX-One.

Product Configuration

Setup disk : (DVD) DVD 1 piece in the case
Guidance : A4 size, English/Japanese
Product Registration Guide, Japanese
User license agreement/User registration card, English/Japanese

Main Functions

Category		Function
Programming	Ladder	Create Ladder program on Ladder View
		Create Function Block Call on Ladder View
		Create Rung Comment on Ladder View
		Create Symbol Comments on Ladder View
		Create Attached Comment on Ladder View
		Create Ladder program on Mnemonic View
		Create Ladder program by smart Input Mode
	Structured Text (ST)	Create Program in Structured Text language
	SFC	Create Program in SFC
		Create SFC Action program in Ladder or Structured Text language
		Create SFC Transition program in Ladder or Structured Text language
	Function Block (FB)	Create Function Block Body in Ladder or Structured Text language
		Nesting Function Blocks (Up to 8 nesting levels)
		Nesting Tree View (FB Instance Viewer)
		Convert Ladder program to Function Block
	Common	Cross Reference Report
		Cross Reference Pop-up
		Program check
		Symbol programming
		Symbol check
		Delete Unused Symbols
		Address automatic allocation
		Definition/Edit Data Structures
		CX-Programmer configuration function (Option)
		Keyboard Mapping function
		Printing function
		Find/Replace
		Jump (Set Rung No./Program address/Set Rung with Commented Rung)
		Expansion advanced instructions (C series)
		UM area allocation (Set expansion fixed DM) (C200HS/E/G/X, CPM1/CPM1A, CPM2□)
		Rung wrap function of Ladder (Online)
		Edit IO comments function
		Section/Rung manage
		ROM Writer function
		Start The CX-Integrator (CS/CJ series)
Reuse of program		Import old support software data (LSS ✻1, SSS ✻2, CVSS ✻3, CPT ✻4, SYSWIN data)
		Import/Export reusable Symbol and Ladder Rung data file
		C500/C120/C**P backup
		PLC Backup Tool Operation (Backup/Compare/Restore)
		Memory Cassette Transfer function/Data Memory to Flash Memory Backup function (CP series)
		PLC Model conversion
Connection with PLC	Connection with PLC directly	Automatic online connection
		Communications via CJ2 CPU Unit USB port
		Communications via peripheral port
		Built-in CPU Unit serial communications
		Serial Communications Unit
	Connection with PLC on Network	Automatic connection via EtherNet/IP Unit
		FINS/UDP connection to EtherNet Unit or EtherNet/IP Unit via EtherNet port
		FINS/TCP connection to EtherNet Unit or EtherNet/IP Unit via EtherNet port
		CIP connection to EtherNet/IP Unit
		FINS connection via Controller Link Board
		FINS connection via SYSMAC LINK Board
		FINS connection via SYSNET Board
		FINS connection via modem
	Simulator	Communication to Simulator
File memory operation		Format Memory card
		Format EM file memory
		Transfer Program file, Data file, and Parameter file between CPU unit and File memory
		Transfer Symbol Files and Comment Files between CX-Programmer and File Memory
		Delete file
		Transfer (Copy) files between storages

✻1. Ladder Support Software
✻2. SYSMAC Support Software
✻3. CV Support Software
✻4. SYSMAC-CPT

Category	Function
IO Table	Create, Edit, Check IO Table
	Verify/Compare IO Tables
	Delete IO Table
	Installing a CPS File (CS/CJ series)
	Display/Write unit production information, unit text (CS/CJ series)
	Display unit profile information (CS/CJ series)
	Set/Transfer/Compare Parameters for Special I/O Units and CPU Bus Units
	Save Parameters for SIOU Units and CPU Bus Units (CS/CJ series)
	Start Special Tool for SIOU Units and CPU Bus Units (CSCJ series)
	Display each rack's power consumption (CS/CJ series)
	Display rack width (CJ series)
	Printing function
	Display the Dip-switches status of the CPU Unit
Transfer program	Transfer program (Program, Rung Comment, Attached Comment, IO Table, PLC Settings, Symbol Table, IO Memory, SIOU Unit Parameters)
	Transferring in Task units
	Verify program (Program, Function Block Body, SFC action, SFC transition, IO Table, IO Memory, PLC setting)
Monitoring program	Monitoring Ladder View
	Monitoring Mnemonic View
	Monitoring Structured Text program
	Monitoring SFC program
	Monitoring SFC action, SFC transition, SFC subchart
	Displaying Flash-ROM back up status
	Monitoring Function Block Ladder View
	Monitoring Function Block ST View
Debug program	Set/Reset
	Change current value
	Force Set/Reset
	Change Timer/Counter setting values
	Differential monitor/Pause monitor
	Online edit
	Online editing of Function Block
	Display errors and error logs occurring
	Data trace, Time chart monitor
	Save result of data trace or time chart monitor
	Display cycle time/ task execution time
	Measure MARK instruction execution time (CV/CVM1 series)
	Read Protection Using Passwords (CS/CJ/CP series)
	Read Protection for Specific Tasks (CS/CJ/CP series)
	System or partial protection (CV/CVM1 series)
	Write Protection (CPM1/CPM1A, CPM2□)
	Password Protection of Function Bloks
	Read/Set clock
Simulation	Debugging by using a Simulator
	PLC-PT Integrated Simulation
	PLC Error Simulator
Edit/Monitor IO memory (Data memory)	Edit IO memory data
	Monitor IO memory data (PLC Memory window, Address monitor, Watch window, Ladder window, Mnemonic window)
	Verify/Transfer IO memory data
	Find contacts of Force set/reset
PLC settings	Edit PLC settings
	Transfer PLC settings
	Verify PLC settings
	Printing

Category		Function
Appendix	File extension	CX-Programmer project file (.CXP); A file containing the all user programs and parameter data created by CX-Programmer. (The .CXP file is a compressed version of the .CXT file.)
		CXT file (.CXT); A text-based format supported by CX-Programmer. The .CXT file format is used for file conversions.
		BAK file (.BAK); A backup copy of the project file.
		Program file (.OBJ); It indicates full program area files.
		Program index file (PROGRAMS.IDX); CX-Programmer section names, section comments, and program comments.
		Symbols file (SYMBOLS.SYM); CX-Programmer Global symbol tables, Local symbol tables, settings for automatically allocated areas.
		Comment file (COMMENTS.CMT); CX-Programmer rung comments and comments.
		OPT file (.OPT); A file containing the preferences for the project.
		CXO file (.CXO); A file containing the settings made on the Options dialog and the Watch window.
		MAC file (.MAC); A file containing the keyboard mapping made on the Keyboard Mapping (Shortcut Keys) dialog.
		CX-Server file (.CDM); A file containing all of the information about the PLCs, which CX-Server can connect to and the addresses of interest in each PLC which may be accessed. A new CX-Server project can be created from the CX-Net Network Configuration tool.
	View	Ladder Section Window; It displays the Ladder program graphically. PLC program instructions can be entered as a graphical representation in Ladder form.
		Output Window; • [Compile]; The Compile tab displays the output produced from program compilation. Selecting an error highlights the source of the problem in the Ladder Diagram. The Compile tab also displays other information, for example, warnings and connection messages. • [Find Report]; The Find Report tab displays the output produced from a search of project files for a articular entry. • [Transfer]; The Transfer tab view displays the results of file or program loading.
		Watch Window; It displays the value of the addresses of PLC memory during program execution.
		Mnemonics View; The Mnemonics view is a formatted editor for programming in mnemonic instructions.
		ST Editor Window; Displays the ST language can be input directly.
		SFC Editor Window; Displays an SFC chart or subchart.
		Symbol Table Window; Displays an editable list of symbol definitions - the names, addresses and comments.

System Requirements

The system requirements are the same as those for the CX-One. (The CX-Programmer is included in the CX-One.)
For, details, refer to the FA Integrated Tool Package CX-One Datasheet.

Applicable Units

CX-Programmer can be used with SYSMAC CS/CJ/CP/NSJ-series, C-series, and CVM1/C-series PLCs.
Note: Including models no longer available to order.

Applicable Models

Series		Unit
CS/CJ/CP-series	CS-series	CS1H-CPU63/64/65/66/67 (-V1) CS1G-CPU42/43/44/45 (-V1) CS1H-CPU63H/64H/65H/66H/67H CS1G-CPU42H/43H/44H/45H CS1D-CPU67HA/68HA CS1D-CPU44SA/67SA CS1D-CPU65H/67H CS1D-CPU42S/44S/65S/67S
	CJ-series	CJ1G-CPU44/45 CJ1H-CPU65H/66H/67H/64H-R/65H-R/66H-R/67H-R CJ1G-CPU42H/43H/44H/45H CJ1M-CPU11/12/13/21/22/23 CJ2H-CPU64-EIP/65-EIP/66-EIP/67-EIP/68-EIP CJ2H-CPU64/65/66/67/68 CJ2M-CPU11/12/13/14/15/31/32/33/34/35
	CP-series	CP1H-XA40DR-A/XA40DT-D/XA40DT1-D/X40DR-A/X40DT-D/X40DT1-D/Y20DT-D CP1L-EL20DR-D/EL20DT-D/EL20DT1-D CP1L-EM40DR/EM40DT-D/EM40DT1-D/EM30DR-D/EM30DT-D/EM30DT1-D CP1L-M60DR-A/M60DR-D/M60DT-A/M60DT-D/M60DT1-D/M40DR-A/M40DR-D/M40DT-A/M40DT-D/M40DT1-D/ M30DR-A/M30DR-D/M30DT-A/M30DT-D/M30DT1-D CP1L-L20DR-A/L20DR-D/L20DT-A/L20DT-D/L20DT1-D/L14DR-A/L14DR-D/L14DT-A/L14DT-D/L14DT1-D/L10DR-A/ L10DR-D/L10DT-A/L10DT-D/L10DT1-D CP1E-E14SDR-A/E20SDR-A/E30SDR-A/E40SDR-A/E60SDR-A CP1E-N30S1DR-A/N30S1DT-D/N30S1DT1-D/N40S1DR-A/N40S1DT-D/N40S1DT1-D/N60S1DR-A/N60S1DT-D/N60S1DT1-D CP1E-N30SDR-A/N30SDT-D/N30SDT1-D/N40SDR-A/N40SDT-D/N40SDT1-D/N60SDR-A/N60SDT-D/N60SDT1-D CP1E-E40DR-A/E30DR-A/E20DR-A/E14DR-A/E10DR-A/E10DT-A/E10DT1-A/E10DR-D/E10DT-D/E10DT1-D CP1E-N60DR-A/N60DT-A/N60DT1-A/N60DR-D/N60DT-D/N60DT1-D/N40DR-A/N40DR-D/N40DT-A/N40DT-D/ N40DT1-A/N40DT1-D/N30DR-A/N30DR-D/N30DT-A/N30DT-D/N30DT1-A/N30DT1-D/N20DR-A/N20DR-D/ N20DT-A/N20DT-D/N20DT1-A/N20DT1-D/N14DR-A/N14DT-A/N14DT1-A/N14DR-D/N14DT-D/N14DT1-D CP1E-NA20DR-A/NA20DT-D/NA20DT1-D CP2E-E14DR-A/E20DR-A/E30DR-A/E40DR-A/E60DR-A CP2E-S30DR-A/S40DR-A/S60DR-A/S30DT-D/S40DT-D/S60DT-D/S30DT1-D/S40DT1-D/S60DT1-D CP2E-N14DR-A/N20DR-A/N30DR-A/N40DR-A/N60DR-A/N14DR-D/N20DR-D/N30DR-D/N40DR-D/N60DR-D/N14DT-A/ N20DT-A/N30DT-A/N40DT-A/N60DT-A/N14DT-D/N20DT-D/N30DT-D/N40DT-D/N60DT-D/N14DT1-D/N20DT1-D/ N30DT1-D/N40DT1-D/N60DT1-D
NSJ-series	NSJ Controller	NSJ5-□-G5D NSJ8-□-G5D NSJ10-□-G5D NSJ12-□-G5D NSJ5-□-M3D NSJ8-□-M3D
C-series	C1000H	C1000H-CPU01
	C2000H	C2000H-CPU01 Simplex system
	C200H	C200H-CPU01/02/03/11/21/22/23/31
	α-series	C200HX-CPU34/44/54/64
		C200HG-CPU33/43/53/63
		C200HE-CPU11/32/42
		C200HX-CPU34-Z/CPU44-Z/CPU54-Z/CPU64-Z/CPU65-Z/CPU85-Z
		C200HG-CPU33-Z/CPU43-Z/CPU53-Z/CPU63-Z
		C200HE-CPU11-Z/CPU32-Z/CPU42-Z
	C200HS	C200HS-CPU01/03/21/23/31/33
	CPM1A-series	CPM1 (A)-10CDR/20CDR/30CDR/40CDR (-V1)
	CPM2A-series	CPM2A-20CD/30CD/40CD/60CD
	CPM2C-series	CPM2C-10CD/10C1D/20CD/20C1D
	CPM2□-S□	CPM2C-S100C/110C CPM2C-S110C-DRT
	CQM1	CQM1-CPU11/21/41/42/43/44/45
	CQM1H-series	CQM1H-CPU11/21/51/61
CVM1/CV-series	CV1000	CV1000-CPU01 (-V1)
	CV2000	CV2000-CPU01 (-V1)
	CV500	CV500-CPU01 (-V1)
	CVM1	CVM1-CPU01/1 (-V1)
	CVM1-V2	CVM1-CPU01-V2/CPU11-V2/CPU21-V2
FQM1		FQM1-CM001/CM002 Coordinator module FQM1-MMA21/MMA22/MMP21/MMP22 Motion control module
IDSC		IDSC-C1DR-A/C1DT-A
SRM1		SRM1-C01/C02 (-V1/-V2)

Note: Including models no longer available to order.

Related Manuals

Cat.No.	Model	Manual name	Contents
W446	CXONE-AL□□D-V4	CX-Programmer Ver. 9.□ Operation Manual	Provides information on how to use the CX-Programmer for all functionality except for function blocks.
W447	CXONE-AL□□D-V4	CX-Programmer Ver. 9.□ Operation Manual Function Blocks/Structured Texts	Describes the function block functions and structured text programming functions that can be used with the CX-Programmer version 9.□. For details on other CX-Programmer functions, refer to the CX-Programmer Ver. 9.□ Operation Manual (Cat. No.W446).
W469	CXONE-AL□□D-V4	CX-Programmer Operation Manual: SFC	Explains how to use the SFC programming functions. For explanations of other shared CX-Programmer functions, refer to the CX-Programmer Operation Manual (W446).
W463	CXONE-AL□□D-V4	CX-One Setup Manual	Installation and overview of CX-One FA Integrated Tool Package.
W445	CXONE-AL□□D-V4	CX-Integrator Operation Manual	Describes the operating procedures for the CX-Integrator.

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