CX-Compolet/SYSMAC Gateway

High performance and full connectivity

CX-Compolet includes software components that can make it easy to create programs for communications between a computer and Omron controllers. This package includes .NET control objects and ActiveX control objects that can be used with Visual Basic and C# programming languages. Apart of the standard communications functionality, it supports the communication using EtherNet/IP Tag names with NX/NY/NJ machine controller families. Data types like structures and arrays are also supported.

SYSMAC Gateway is a communications middleware for personal computers running Windows. Support CIP communications and tag data links (EtherNet/IP) in addition to FinsGateway functions. It's available as a standalone package to act just as communications middleware and it's also included in the CX-Compolet package.

Specifications

System requirements (CX-Compolet/SYSMAC Gateway)

Item	Requirements
Operating system (OS) Japanese or English system	Microsoft Windows Server 2008 R2 (64bit[*1]) Microsoft Windows Server 2012 (64bit[*1]) Microsoft Windows Server 2012 R2 (64bit[*1]) Microsoft Windows Server 2016 (64bit[*1]) Microsoft Windows Server 2019 (64bit[*1]) Microsoft Windows Server 2022 (64bit[*1]) Microsoft Windows Server 2025 (64bit[*1]) Microsoft Windows 7 SP1 (32bit/64bit[*1]) Microsoft Windows 8.1 (32bit/64bit[*1]) Microsoft Windows 10 (32bit/64bit[*1]) Microsoft Windows 11 (64bit[*1])
Personal computer	Windows computers with Intel 32bit (x86) processor or 64bit (x64) -based processor
CPU	Processor recommended by Microsoft (1 GHz or faster recommended)
Memory	1 GB min. (2 GB min. recommended)
Hard disk	At least 400 MB of available space

[*1.] This software runs on WOW64 (Windows-On-Windows 64). Refer to the sample program included with the product to run applications as 64-bit processes.

Note: **1.** USB port on the PC can not be shared between SYSMAC Gateway and CX-One in Windows Vista or higher.
2. System requirements for Windows computers are the same as those recommended by Microsoft.
3. The compatible functions of SYSMAC Compolet v2 are supported by Windows XP only.

Comparison between SYSMAC Gateway and CX-Compolet

Communications method	Protocols	Specifying memory areas	SYSMAC Gateway	CX-Compolet + SYSMAC Gateway
Message communications	FINS	Physical address	Yes	Yes
	CIP	Physical address	Yes[*1]	Yes
		Tag names	No	Yes
Tag Data Links (EtherNet/IP)	CIP	Physical address	Yes[*2]	Yes
		Tag names	No	Yes
Development languages			C, C++	Visual Basic, C#

[*1.] Please, use after understanding the CIP communications specifications.
[*2.] Data is transferred through the event memory.

Correspondence between machine controller models and connected networks

Machine controller model	Personal computer side							
	RS-232C				USB	Ethernet (LAN)		Controller Link
	SYSWAY (Host Link C mode)	SYSWAY-CV (Host Link FINS)	CompoWay/F (master at PC)	Peripheral USB	FINS	Ethernet (FINS)	EtherNet/IP	FINS
X7/NJ1 (unit version 1.10 or later)*1	No	No	No	No	No	No	Yes*2	No
NJ5/NJ3 (unit version 1.03 or later)*3								
NX5 (unit version 1.60 or later)*4								
NX1 (unit version 1.30 or later)*5								
NX1P (unit version 1.13 or later)*6								
NY5□□-1 (unit version 1.12 or later)*6								
NX701-Z/NY5□□-Z (unit version 1.18 or later)*7								

*1. To connect the NX701-1□□□/NJ101-□□□□ Controller, CX-Compolet / SYSMAC Gateway version 1.70 or higher is required.

*2. Tag data links between SYSMAC Gateway and the NJ/NX-series CPU Unit or Industrial PC Platform NY-series IPC Machine Controller can be created within the CJ-series specifications for variable with basic data type, array variable, and structure variable. SYSMAC Gateway memory allocation of structure variable is the same as the CJ-series. But, the tag data link with internal port of NY series is impossible.

*3. To connect the NJ3/5 Controller, CX-Compolet / SYSMAC Gateway version 1.31 or higher is required.

*4. To connect the NX502-1□□□ Controller, CX-Compolet / SYSMAC Gateway version 1.81 or higher is required.

*5. To connect the NX1 Controller, CX-Compolet / SYSMAC Gateway version 1.72 or higher is required.

*6. To connect the NX1P/NY5□□-1 Controller, CX-Compolet / SYSMAC Gateway version 1.71 or higer is required.

*7. To connect the NX701-Z□00/NY5□□-Z□00 Controller, CX-Compolet / SYSMAC Gateway version 1.73 or higher is required.

Ordering information

CX-Compolet

Product	Specifications		Model
CX-Compolet*1	Software components that can make it easy to create programs for communications between a computer and controllers. This packaged product bundles CX-Compolet and SYSMAC Gateway with 1 license each. Supported execution environment: .NET Framework (2.0, 3.0, 3.5, 4.0 or 4.5.1)*2 Development environment: Visual Studio 2005/2008/2010/2012/2013/2015 Development languages: Visual Basic, C# Supported communications: Equal to SYSMAC Gateway	1 user license	CX-COMPOLET-EV1-01L
		5 user license	CX-COMPOLET-EV1-05L
		10 user license	CX-COMPOLET-EV1-10L
		Site user license	CX-COMPOLET-EV1-XXL

*1. One license is required per computer.

*2. When .NET Framework version 1.1 (Visual Studio 2003) is used for development, only the specifications of CX-Compolet version 1.5 are available.

Note: Supported only by the machine controller CPU units version 1.03 or higher and the CX-Compolet version 1.31 or higher.

SYSMAC Gateway (communications middleware)

Product	Specifications	Model
SYSMAC Gateway*1	Communications middleware for personal computers running Windows. Supports CIP communications and tag data links (EtherNet/IP) in addition to FinsGateway functions. This package includes SYSMAC Gateway with 1 license. (FinsGateway is also included.) Supported communications: RS-232C, USB, Controller Link, SYSMAC Link, Ethernet, EtherNet/IP	SYSMAC-GATEWAY-RUN-V1

*1. One license is required per computer.

Note: Supported only by the machine controller CPU units version 1.03 or higher and the CX-Compolet version 1.31 or higher.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. SysCat_I184E-EN-04 In the interest of product improvement, specifications are subject to change without notice.