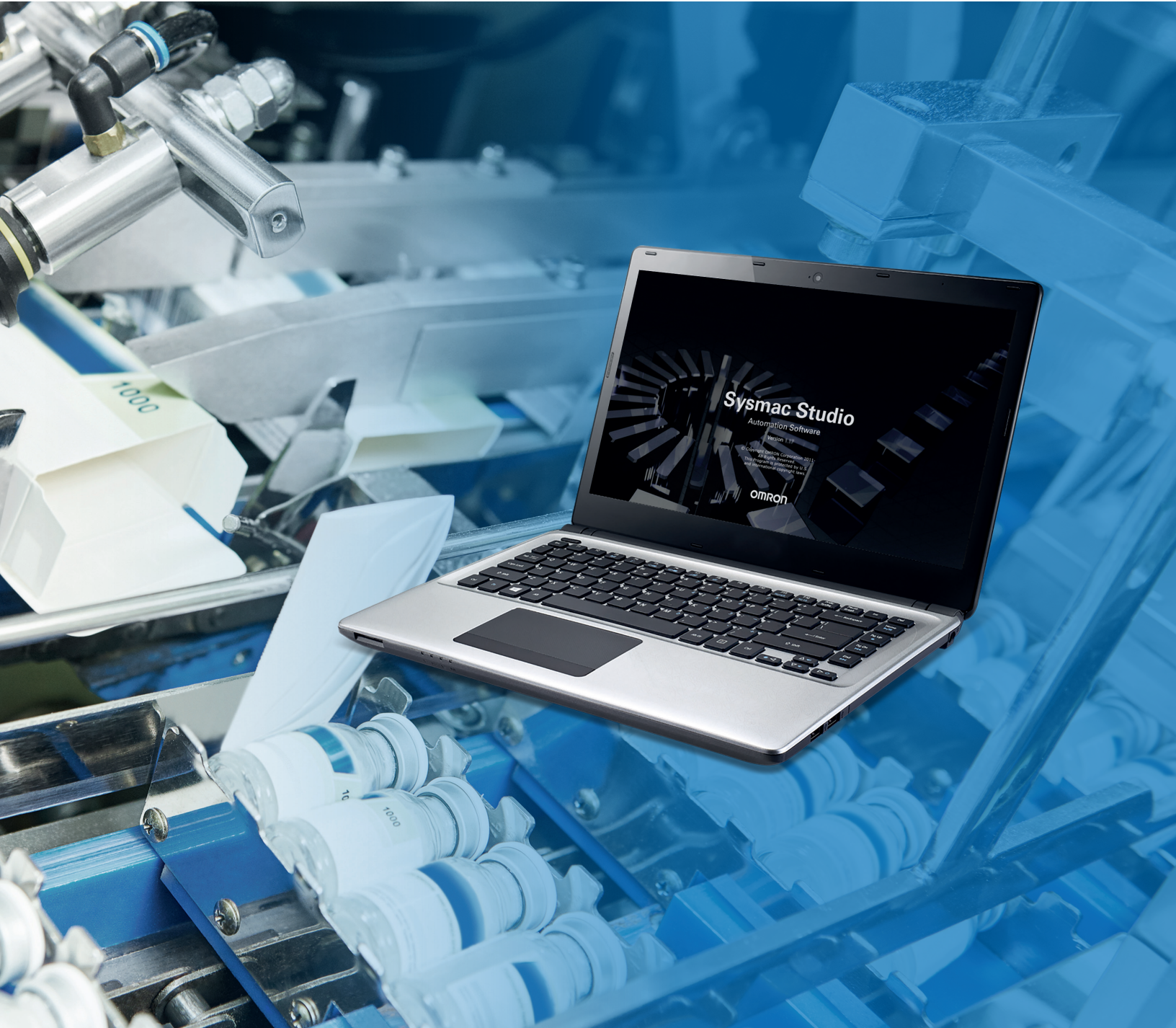




Sysmac Studio

Selection Guide



SYSMAC
always in control

One Integrated Development Environment

Designed to give you complete control over your automation system

Combining configuration, programming and monitoring in a single interface, Sysmac Studio is a unique environment that integrates logic, motion and drives, robotics, safety, visualization, sensing and information technologies in one project. This reduces the learning curve and the intra-operative software costs. License options include the full-featured version, the controller-specific version, and a version specific to other technologies.



Minimize time to market

Single Software Environment

- Integrating logic control, safety, motion, drives, robotics, HMI, Vision, Advances Sensing and information systems into a single environment allows programs to leverage simplified program architecture for quicker development.
- IEC611-31-3 compliance and third party compatibility further accelerates program time while allowing minimum impact to existing automation infrastructure.

Collaborate as a team

- Coordinated development in large decentralized teams is possible. Sysmac Studio integrates a unique graphic interface with a GIT version control system. Take full control of your code and variations and take advantage of the most popular version control software (GIT) and its possibilities for team collaboration, not only during the design phase but also the commissioning and operation phases.

Protecting Proprietary Program Code

- Sysmac Studio function blocks can be locked and customized to decrease risk of stolen intellectual property and easy version control.

Backwards Compatible

- No matter the version of Sysmac Studio, the software is compatible with all firmware versions of products in the OMRON portfolio. Extending product life in the field.

Modular design

- Create flexible and modular designs using Sysmac Studio library system, Intelligent Application Gadgets (HMI faceplates), and flexible EtherCAT configurations.



Reduce installation costs

3D Simulation

- Import and control CAD data to simulate a machine using standard ladder logic, structured text and function block commands. Sysmac Studio can fully simulate HMI, Controller and machine operation in one software.

PLC Logic Simulation

- Simulate the Ladder Logic / Structured Text programs to test the program for the actual machine. PLC Program Simulation does not require any hardware connection.

HMI Logic Simulation

- The NA HMI screens can be simulated in Sysmac Studio to help with the design of operator screens . The variables used for the PLC program can be linked with the NA HMI buttons or data displays. HMI Program Simulation does not require any hardware connection.

Motion Simulation

- More than 50 PLC open and Proprietary Motion FB's available in controller to develop single, synchronous and coordinated motion applications. Rich graphic cam editor including multiple interpolation methods as standard. Motion Program Simulation does not require any hardware connection.

Sysmac Troubleshooter

- Sysmac Studio troubleshooter handles not only Sysmac Controller but complete Sysmac system troubleshooting in a single reporting tool. Commissioning time is dramatically reduced as any Controller, Network, or Slave problem will be detected with all suitable information available for you to control.

License Options



Boost Productivity

Automatic Data Playback

- The Sysmac Automation Playback is the convergence of data, video, program structure, and ladder logic. All playback is time synced and event triggered to allow local and remote team members to quickly and accurately diagnose issues without interrupting production.

Information Systems

- In the era of The Internet of Things, information and automation systems converge. Sysmac Studio allows you to handle OEE data by means of vertical and horizontal integration following open standards like OPC-UA, MQTT, SQL, EtherNet/IP, EtherCAT or PackML Direct.

Ever Ready Security

- Future updates are part of the Sysmac ethos. Automatic software updates continuously improve software security. Combining updates with backwards compatibility firmware allows for quicker deployment of updates.

OMRON Product Family	OMRON Product Compatibility	Sysmac Studio Basic & Advanced	Sysmac Studio Lite	Sysmac Studio Vision	Sysmac Studio Measurement	Symac Studio Drive	Sysmac Studio Safety	Sysmac Studio NX
Logic	NX1P2	•	•					
	NX102	•	•					
	NX502	•						
	NX701	•						
	NJ101	•	•					
	NJ301	•						
	NJ501	•						
HMI	NA5	•	•					
I/O	NX I/O EtherCAT Coupler	•	•					
	NX I/O EtherNet/IP Coupler	•	•					•
Vision	FH	•	•	•				
	FHV7	•	•	•				
	FQM	•	•	•				
Safety	NX-SL3	•	•				•	•
	NX-SL5/CSG	•	•				•	
Motion	1S	•	•			•		
	G5	•	•			•		
Measurement	ZW	•	•		•			

Sysmac Studio Editions

One Integrated Development Environment

Sysmac Studio Standard Edition

Compatible with all Sysmac Devices

Part Number	# of Users	License Delivery Method
SYSMAC-SE201L	1	Electronic
SYSMAC-SE203L	3	Electronic
SYSMAC-SE210L	10	Electronic
SYSMAC-SE230L	30	Electronic
SYSMAC-SE250L	50	Electronic
SYSMAC-SE2XXL	Site	Electronic

Included with Install for Standard, Basic, and Advanced Editions:

- Sysmac Studio
 - CX-Integrator
 - CX-Designer
 - CX-Protocol
 - Network Configurator
 - CX-ConfiguratorFDT
 - Adept Robot IP Address Setting Tool
 - CX-Server
 - Communications Middleware
-

Sysmac Studio Basic Edition

Control of Standard Edition with Online License Management

Part Number	# of Users	License Delivery Method
SYSMAC-BA201L	1	Electronic

Sysmac Studio Advanced Edition

Control of Basic Edition with Addition of 3D Simulation , Teams Edition, and Online License Management

Part Number	# of Users	License Delivery Method
SYSMAC-AD201L	1	Electronic

Expanded capabilities:

Access to Sysmac Studio License Manager, allowing users to recover licenses in the event of lost license key.

Sysmac Studio Basic to Advanced Edition

Upgrade from Basic to Advanced with a Single License.

Part Number	# of Users	License Delivery Method
SYSMAC-AD501L	1	Electronic

Sysmac Studio Lite Edition

Compatible with all Sysmac Devices except NJ3, NJ5, NX7

Full Capability of Sysmac Studio Limited to NX1, NJ1 controllers.

Part Number	# of Users	License Delivery Method
SYSMAC-LE201L	1	Electronic
SYSMAC-LE203L	3	Electronic
SYSMAC-LE210L	10	Electronic

Included with Install for Lite Edition:

- Sysmac Studio
 - CX-Integrator
 - CX-Designer
 - CX-Protocol
 - Network Configurator
 - CX-ConfiguratorFDT
 - Adept Robot IP Address Setting Tool
 - CX-Server
-

License required to upgrade from Lite to Standard

Part Number	# of Users	License Delivery Method
SYSMAC-LU501L	1	Electronic
SYSMAC-LU503L	3	Electronic
SYSMAC-LU510L	10	Electronic

System Requirements

The system requirements for Sysmac Studio Standard and Sysmac Studio Lite are given in the following tables



OS		CPU	RAM	Display
Windows 7 (32-bit)	Minimum ¹	IBM AT or compatible with Intel® Celeron® processor 540 (1.8 Ghz)	2 GB	XGA 1,024 x 768, 16 million colors
Windows 8 (32-bit)				
Windows 8.1 (32-bit)	Recommended ^{2,3}	IBM AT or compatible with Intel® Core™ i5 M520 processor (2.4 GHz) or equivalent	4 GB min.	WXGA 1,280 x 800x 16 million colors
Windows 10 (32-bit or 64-bit edition)				

1. If you create a user program with a memory size that exceeds 20 MB, use the 64-bit edition of the operating system and 8 GB or more of RAM.
2. If the user program is large, we recommend that you use a 64-bit IBM AT or compatible with an Intel® Core™ i7 processor or better and 8 GB or more of RAM.
3. If you use the Robot Additional Option and execute Vision and Robot integrated simulations, use a 64-bit IBM AT or compatible with an Intel® Core™ i5 processor or better and 8 GB or more of RAM.

In addition, the following are also required

System Requirement	Specification
Available hard disk space required for installation	4.6 GB min.
Communications port	Ethernet or USB (USB 2.0)
Recommended Video Cards The following are recommended to use 3D motion monitoring	
Video memory	512 MB min.
Video Card	One of the following video cards: <ul style="list-style-type: none"> • NVIDIA GeForce 200 Series or better • ATI Radeon HD5000 Series or better

Limited Licenses

These licenses provide Sysmac Studio functionality for specific hardware only



Sysmac Studio Vision Edition

Compatible with only FH, FHV7, FQM (license allows users to configure Sysmac Vision Systems)

Part Number	# of Users	License Delivery Method
SYSMAC-VE001L	1	Electronic



Sysmac Studio Measurement Edition

Compatible with only ZW-series Displacement Sensors (license allows users to configure Displacement Sensor)

Part Number	# of Users	License Delivery Method
SYSMAC-ME001L	1	Electronic



Sysmac Studio NX/I-O Edition

Compatible with only EtherNet/IP Coupler (NX-EIC202) and NX-SL3

Part Number	# of Users	License Delivery Method
SYSMAC-NE001L	1	Electronic



Sysmac Studio Drive Edition

Compatible with only 1S and G5 Servos (license allows users to configure Sysmac Motion Drives)

Part Number	# of Users	License Delivery Method
SYSMAC-DE001L	1	Electronic



Sysmac Studio Safety Edition

Compatible with only NX-CSG, NX-SL5, and NX-SL3

Part Number	# of Users	License Delivery Method
SYSMAC-FE001L	1	Electronic

Add-On Licenses

These licenses provide additional functionality and are required in addition to a Sysmac Studio License

Sysmac Studio Team Edition

The Team Edition implementation of Sysmac Studio incorporates a distributed version control system that allows multiple co-developers to work on the same project.

Part Number	# of Users	License Delivery Method
SYSMAC-TA401L	1	Electronic
SYSMAC-TA403L	3	Electronic
SYSMAC-TA410L	10	Electronic
SYSMAC-TA430L	30	Electronic
SYSMAC-TA450L	50	Electronic
SYSMAC-TA4XXL	site	Electronic

AI Controller

This license is required to use the AI Controller and is bundled in when hardware is purchased. Not available for purchase separately.

Part Number	# of Users	License Delivery Method
SYSMAC-AL0101L	N/A	Included with Hardware Purchase

NC Controller

The CNC Operator is the software that provides an operation interface for NC programming, debugging and maintenance for CNC machines. One license for CNC Operator is included with the NC CPU unit.

Part Number	# of Users	License Delivery Method
SYSMAC-RTNC0001L	1	Dongle included with CPU Unit

CNC Operator Software Development Kit is an optional add on that provides an environment for customizing the CNC Operator.

SYSMAC-RTNC0101D	1	Dongle included with CPU Unit
------------------	---	-------------------------------

Robot and Vision Simulation

This license is required to enable the Vision and Robot Simulation Tool

Part Number	# of Users	License Delivery Method
SYSMAC-RA401L	1	Non Stock

3D Simulation

This license is required to use the 3D Simulation functionality available with 64 Bit version of Sysmac Studio

Part Number	# of Users	License Delivery Method
SYSMAC-SA401L-64	1	Electronic
SYSMAC-SA403L-64	3	Electronic
SYSMAC-SA410L-64	10	Electronic
SYSMAC-SA430L-64	30	Electronic
SYSMAC-SA450L-64	50	Electronic
SYSMAC-SA4XXL-64	Site	Electronic

OMRON AUTOMATION AMERICAS HEADQUARTERS • Chicago, IL USA • 847.843.7900 • 800.556.6766 • automation.omron.com

OMRON CANADA, INC. • HEAD OFFICE

Toronto, ON, Canada • 416.286.6465 • 866.986.6766 • automation.omron.com

OMRON ELECTRONICS DE MEXICO • HEAD OFFICE

Ciudad de México • 52.55.5901.4300 • 01.800.386.6766 • mela@omron.com

OMRON ELECTRONICS DE MEXICO • SALES OFFICE

San Pedro Garza García, N.L. • 81.12.53.7392 • 01.800.386.6766 • mela@omron.com

OMRON ELECTRONICS DE MEXICO • SALES OFFICE

Eugenio Garza Sada, León, Gto • 01.800.386.6766 • mela@omron.com

OMRON ELETRÔNICA DO BRASIL LTDA • HEAD OFFICE

São Paulo, SP, Brasil • 55 11 5171-8920 • automation.omron.com

OMRON ARGENTINA • SALES OFFICE

Buenos Aires, Argentina • +54.11.4521.8630 • +54.11.4523.8483
mela@omron.com

OTHER OMRON LATIN AMERICA SALES

+54.11.4521.8630 • +54.11.4523.8483 • mela@omron.com

Authorized Distributor:

Controllers & I/O

• Machine Automation Controllers (MAC) • Motion Controllers
• Programmable Logic Controllers (PLC) • Temperature Controllers • Remote I/O

Robotics

• Industrial Robots • Mobile Robots

Operator Interfaces

• Human Machine Interface (HMI)

Motion & Drives

• Machine Automation Controllers (MAC) • Motion Controllers • Servo Systems
• Frequency Inverters

Vision, Measurement & Identification

• Vision Sensors & Systems • Measurement Sensors • Auto Identification Systems

Sensing

• Photoelectric Sensors • Fiber-Optic Sensors • Proximity Sensors
• Rotary Encoders • Ultrasonic Sensors

Safety

• Safety Light Curtains • Safety Laser Scanners • Programmable Safety Systems
• Safety Mats and Edges • Safety Door Switches • Emergency Stop Devices
• Safety Switches & Operator Controls • Safety Monitoring/Force-guided Relays

Control Components

• Power Supplies • Timers • Counters • Programmable Relays
• Digital Panel Meters • Monitoring Products

Switches & Relays

• Limit Switches • Pushbutton Switches • Electromechanical Relays
• Solid State Relays

Software

• Programming & Configuration • Runtime