OMRON

Sysmac Library for NJ/NX/NY Controller

SYSMAC-XR002

MC Command Table Library

Sysmac Library

Make programming for continuous positioning easy.

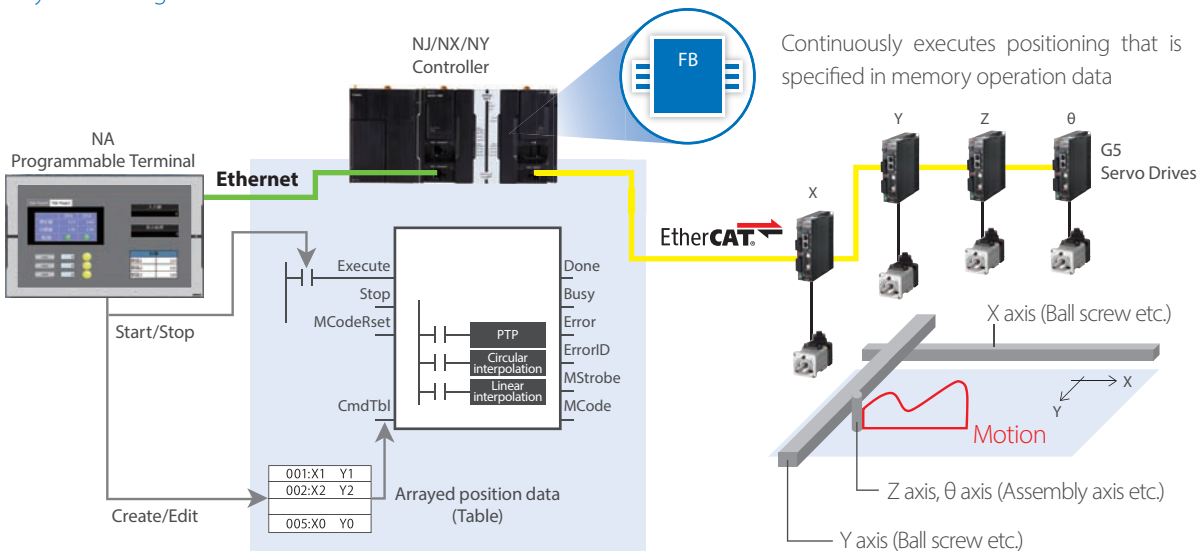
Issue 1 PLCopen® Function Blocks for Motion Control do not support the familiar command table (memory operation) that is an efficient method for simple continuous operation

Issue 2 The program must be modified to change the operation pattern.

MC Command Table Library offers solution!

The Command Table (Memory Operation) Function Block allows you to program motion control using the familiar command table (memory operation). No program modification is required to change he operation pattern.

System configuration

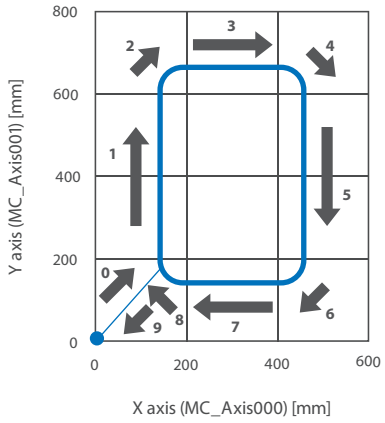


Item		Specification
Positioning points		600 points max.
Available functions	PTP	4 axes max.
	Linear interpolation	4 axes max.
	Circular interpolation	2 axes
Auxiliary functions	Operation pattern	Independent Positioning/Consecutive Positioning/Consecutive Trajectory
	Others	M Code, Dwell Time, etc.

SYSMAC always in control

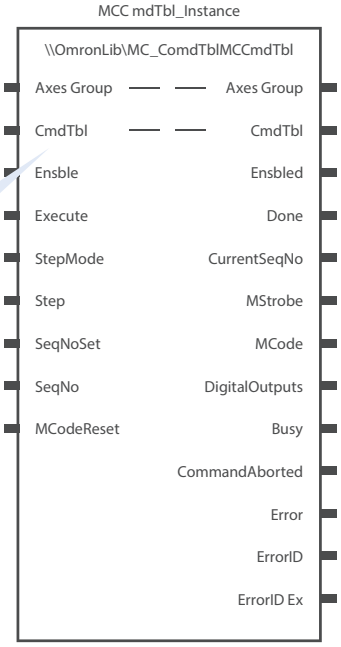
[Example] Path control using the Command Table (Memory Operation) Function Block

With a single Command Table (Memory Operation) Function Block, you can perform path control with multi-execution of PTP, linear interpolation, and circular interpolation instructions as shown below.



Arrayed position data (Table)

001:X1	Y1
002:X2	Y2
005:X0	Y0



Compatible Models

Name	Model	Version
Machine Automation Controller NJ/NX CPU Unit	NX701-1□□□/ NJ101-1□□□*1	Version 1.10 or later
	NJ501-□□□□/ NJ301-□□□□	Version 1.10 or later
	NX1P2-1□□□□□(1) *2	Version 1.13 or later
	NX102-□□□□	Version 1.30 or later
	NX502-□□□□	Version 1.60 or later
Industrial PC Platform NY IPC Machine Controller	NY5□□-1	Version 1.12 or later
	NY5□□-5	Version 1.18 or later
Automation Software Sysmac Studio	SYSMAC-SE2□□□	Version 1.14 or higher
G5 Servo Drive	R88D-KN□□□-ECT	Version 2.10 or later
1S Servo Drive	R88D-1S(A)N□□□-ECT	Version 1.0 or later
	R88D-1SN□□□-ECT-51	Version 2.0 or later

*1. When you use this function block with NJ101-10□□, you can use a maximum of two real servo axes.
*2. When you use this function block with NX1P2-10□□□□, you can use a maximum of two real servo axes.

Function Block (FB) Specifications

Name	FB name	Description
Command Table (Memory Operation)	MCCmdTbl	Continuously executes positioning that is specified in memory operation data for axes groups that are defined in the MC Function Module.

Note: Do not use this document to operate the Unit.

OMRON Corporation **Industrial Automation Company**

Kyoto, JAPAN **Contact : www.ia.omron.com**

Regional Headquarters

OMRON EUROPE B.V.
Wegalaan 67-69, 2132 JD Hoofddorp
The Netherlands
Tel: (31) 2356-81-300 Fax: (31) 2356-81-388

OMRON ASIA PACIFIC PTE. LTD.
438B Alexandra Road, #08-01/02 Alexandra
Technopark, Singapore 119968
Tel: (65) 6835-3011 Fax: (65) 6835-3011

OMRON ELECTRONICS LLC
2895 Greenspoint Parkway, Suite 200
Hoffman Estates, IL 60169 U.S.A.
Tel: (1) 847-843-7900 Fax: (1) 847-843-7787

OMRON (CHINA) CO., LTD.
Room 2211, Bank of China Tower,
200 Yin Cheng Zhong Road,
PuDong New Area, Shanghai, 200120, China
Tel: (86) 21-6023-0333 Fax: (86) 21-5037-2388

Authorized Distributor:

CSM_2_4
Cat. No. P092-E1-04 0326(1115)