

# MC Test Run Library



✓ **Perform precise positioning using an MPG\* when teaching and maintaining a machine.**

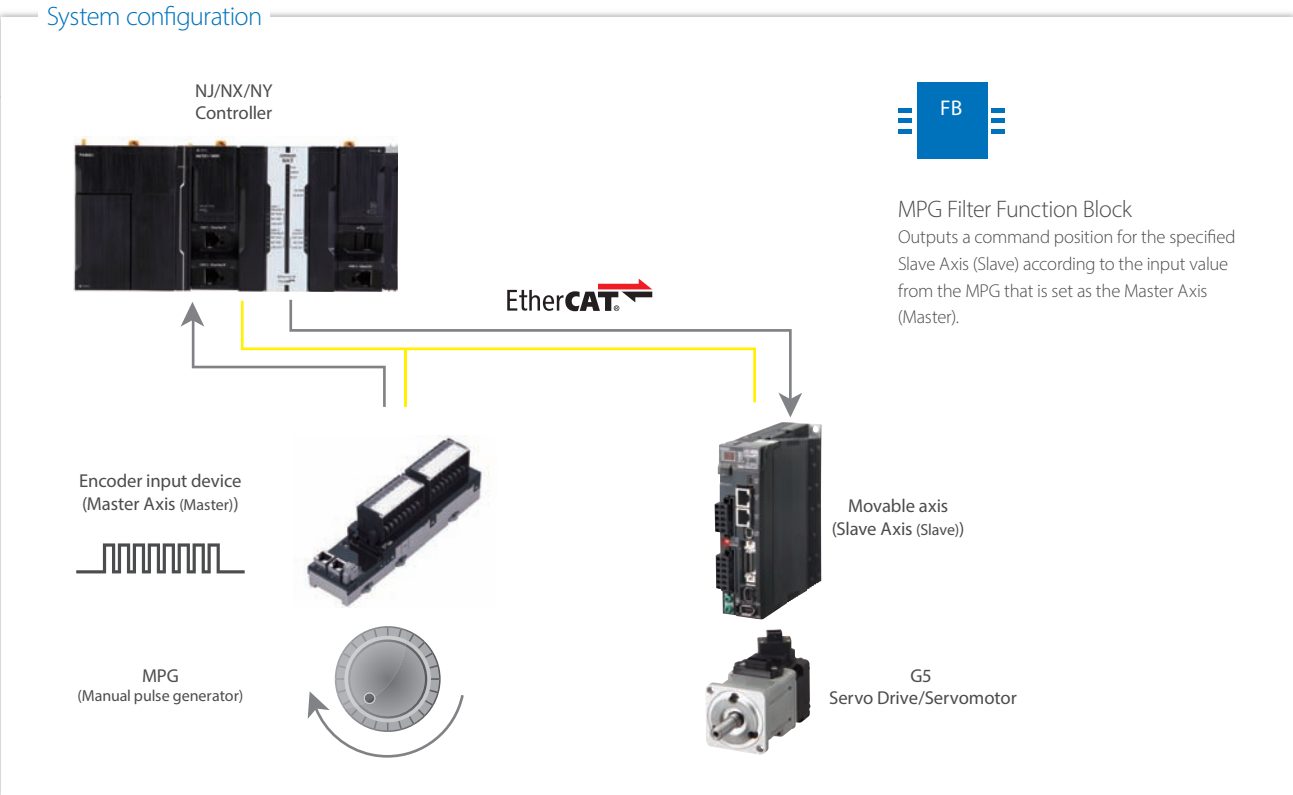
**Issue 1** A machine vibrates due to fluctuations in the motor rotation speed when the axis is moved using an MPG\*.

**Issue 2** A complicated filter processing program is required to keep the motor rotation speed constant.

\* MPG is an acronym for manual pulse generator. An MPG is sometimes called a manual handle.

## MC Test Run Library offers solution!

Thanks to the MPG Filter Function Block, precise positioning using an MPG can be achieved with simple programming.



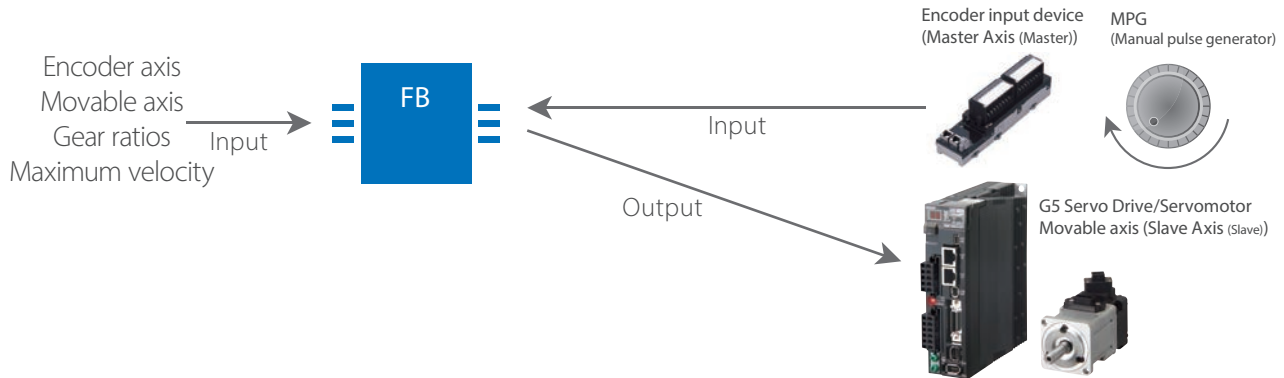
## [Example] Manual operation using the MPG Filter Function Block

**From**

- When an MPG is used, fluctuations in the motor rotation speed cause vibration and noise in the machine.
- A complicated filter processing program is required to keep the motor rotation speed constant.

**To**

- Precise positioning using an MPG can be achieved with simple programming using the MPG Filter Function Block. Input variables specify the gear ratios and maximum velocity.
- The MPG Filter Function Block eliminates the fluctuations in the speed to move the movable axis smoothly, providing precise positioning.



### Compatible Models

Name	Model	Version
Machine Automation Controller NJ/NX CPU Unit	NX701-1□□□/ NJ101-1□□□	Version 1.10 or later
	NJ501-□□□□/ NJ301-□□□□	Version 1.10 or later
	NX1P2-1□□□□□(1)	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
Encoder input device	NX-EC□□□□, GX-EC0211/EC0241	Version 2.10 or later
NX-series Pulse Output Unit	NX-PG0□□□	Version 1.10 or later

### Function Block (FB) Specifications

Name	FB name	Description
MPG Filter	MPGFilter	Creates a command position for the specified axis according to an MPG input.

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

## OMRON Corporation Industrial Automation Company

Kyoto, JAPAN

Contact : [www.ia.omron.com](http://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 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 ASIA PACIFIC PTE. LTD.

438B Alexandra Road, #08-01/02 Alexandra  
Technopark, Singapore 119968  
Tel: (65) 6835-3011 Fax: (65) 6835-3011

#### 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:

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Cat. No. P093-E1-04 0326(1115)