

# 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**

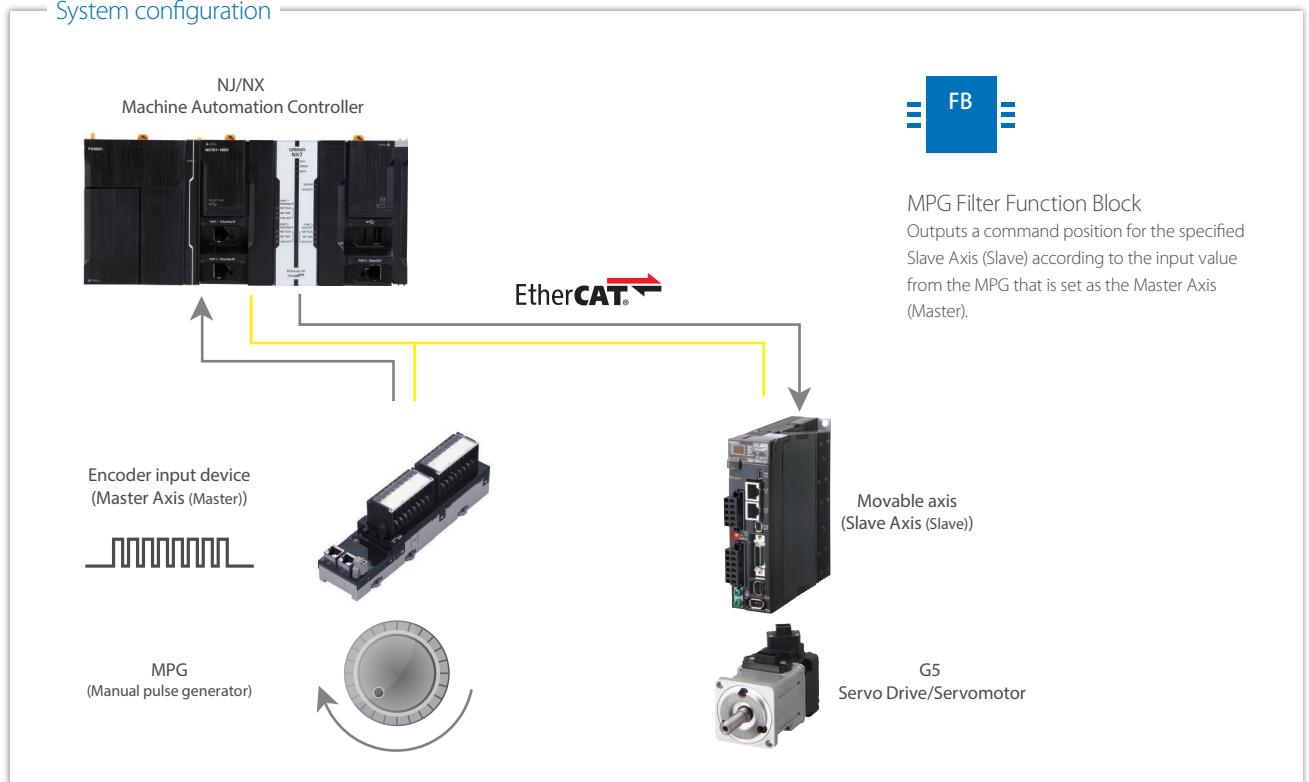
A complicated filter processing program is required to keep the motor rotation speed constant.

\* 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.

### System configuration



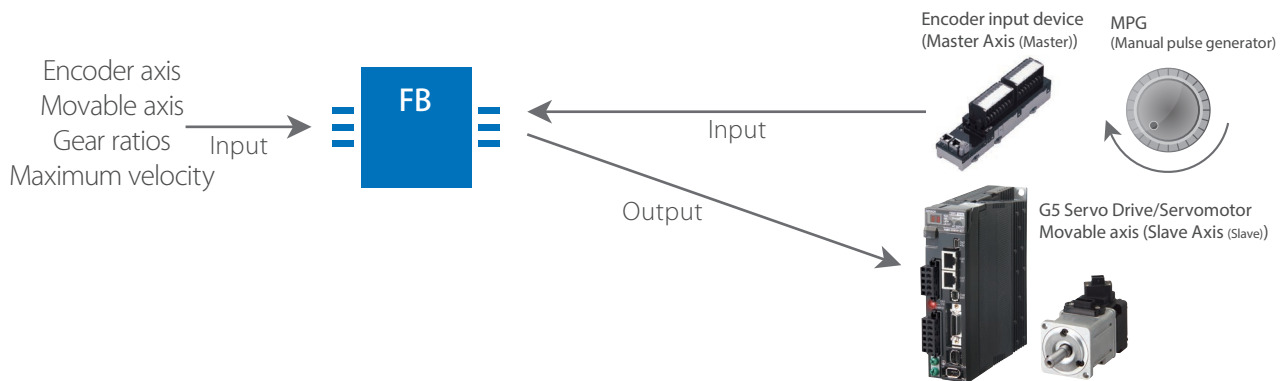
## [Example] Manual operation using the MPG Filter Function Block

### 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-□□□□/ NJ101-□□□□*	Version 1.10 or later
	NJ501-□□□□/ NJ301-□□□□	Version 1.10 or later
Automation Software Sysmac Studio	SYSMAC-SE2□□□	Version 1.14 or higher
G5 Servo Drive with Built-in EtherCAT Communications	R88D-KN□□□-ECT	Ver. 2.10 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

\* This Library is not available for NJ101-90□□ CPU Units.

## 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.

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