

MC Test Run Library



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

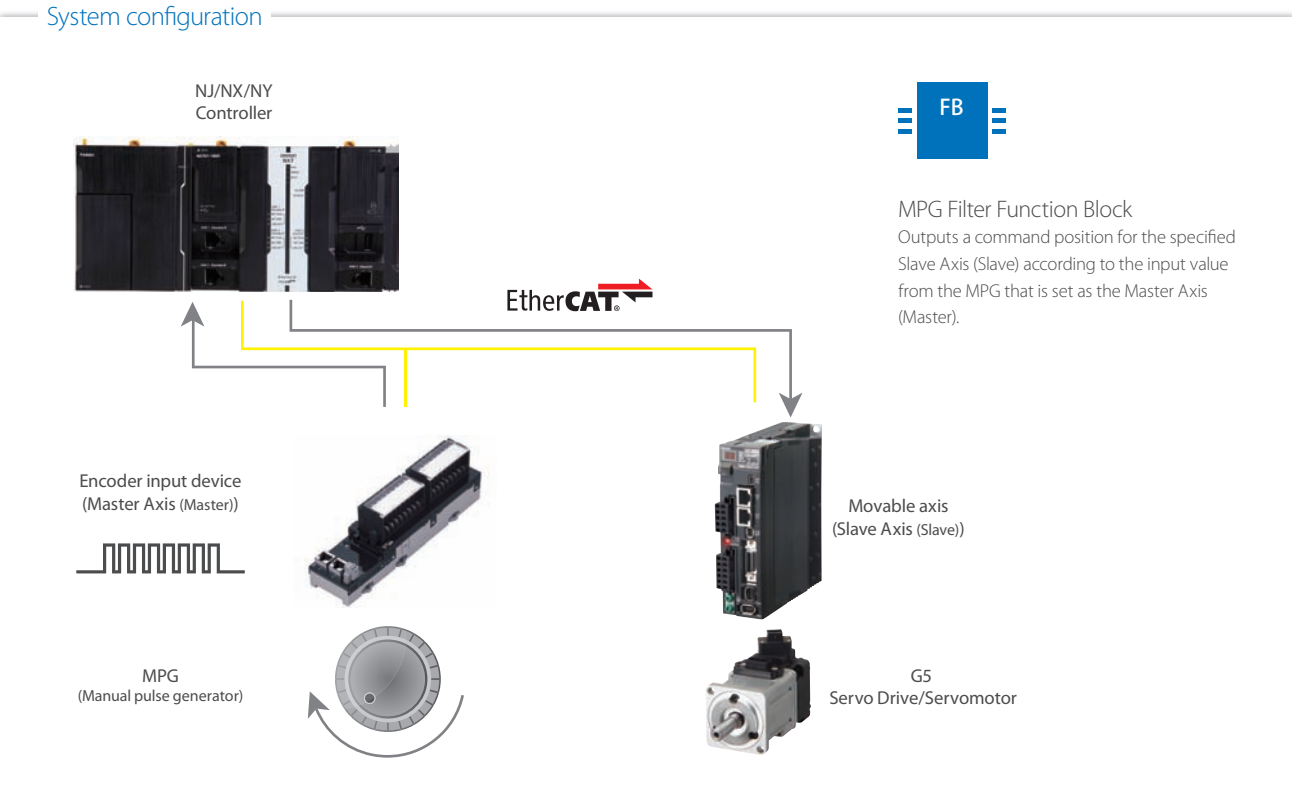
Issue 1 A machine vibrates due to fluctuations in the motor rotation speed when the axis is moved using an MPG*.

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.



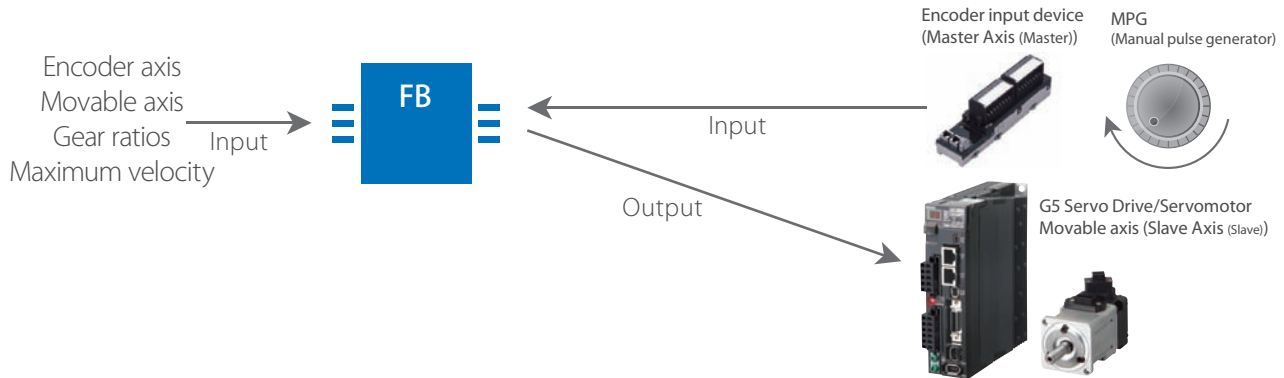
[Example] Manual operation using the MPG Filter Function Block

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-□□□□/ NJ101-□□□□*1	Version 1.10 or later
	NJ501-□□□□/ NJ301-□□□□	Version 1.10 or later
	NX1P2-□□□□□□(1) *2	Version 1.13 or later
Industrial PC Platform NY IPC Machine Controller	NY5□□-1	Version 1.12 or later
Automation Software Sysmac Studio	SYSMAC-SE2□□□	Version 1.14 or higher
G5 Servo Drive with Built-in EtherCAT Communications	R88D-KN□□□-ECT	Version 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

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

*2. This Library is not available for NX1P2-90□□□□ 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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CSM_2_1_1116
Cat. No. P093-E1-01

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