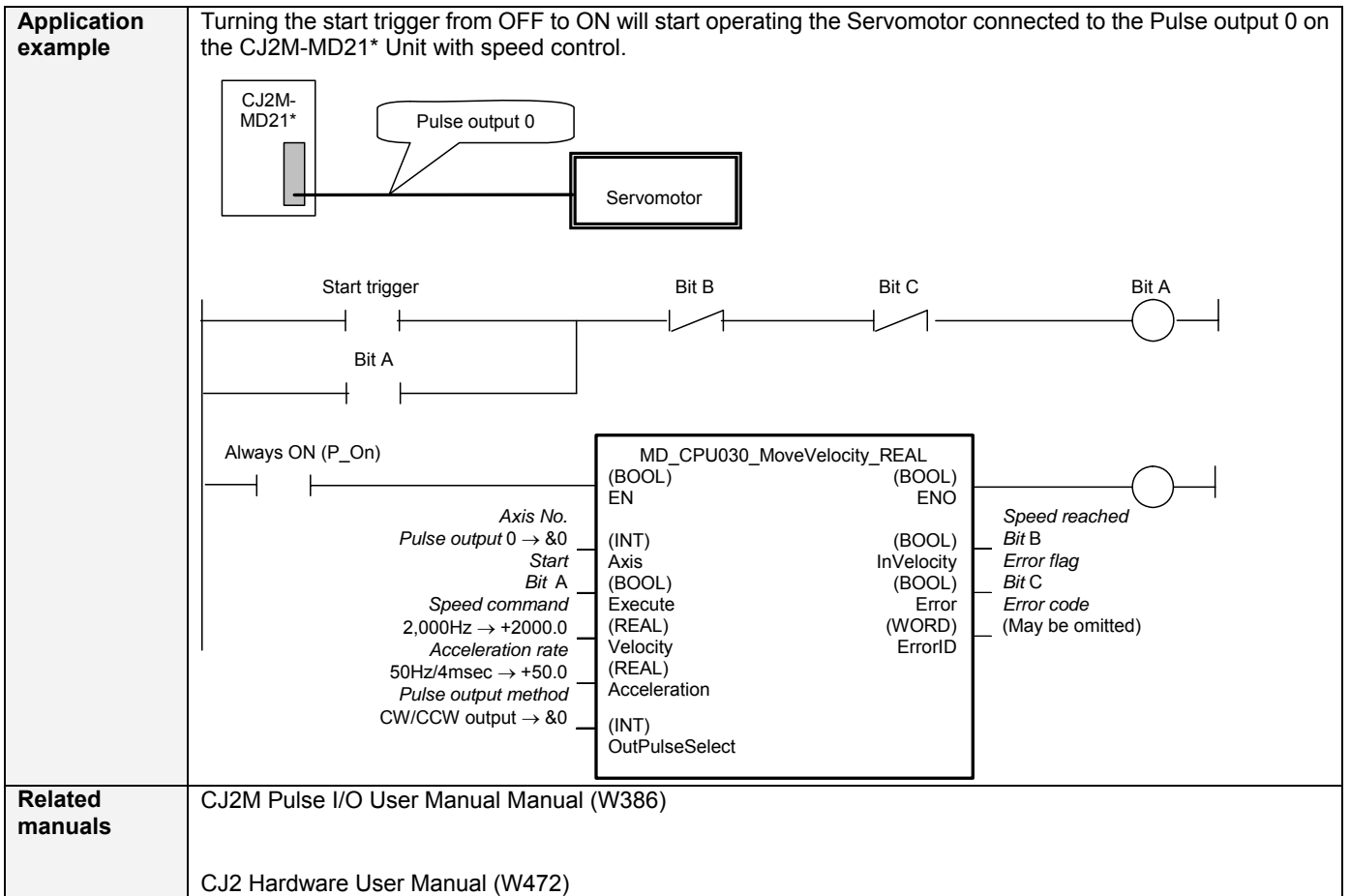


MD_CPU030	Speed Control(REAL): MD_CPU030_MoveVelocity_REAL	
<b>Basic function</b>	Controls speed.	
<b>Symbol</b>		
<b>File name</b>	MD_CPU030_MoveVelocity_REAL.cxf	
<b>Applicable</b>	CPU Unit	CJ2M-CPU Unit version 2.0 or higher with max. two CJ2M-MD211 (NPN) or CJ2M-MD211 (PNP)
<b>models</b>	CX-Programmer	Version 9.1.2 or higher
<b>Conditions for usage</b>	None	
<b>Function description</b>	<p>Executes speed control for the output specified with the Axis No. (Axis) using the Speed command (Velocity) when Start (Execute) is turned ON.</p> <p>The Speed reached (InVelocity) will be turned ON once the speed reaches the target speed specified in this FB. If the speed control is interrupted by a deceleration stop caused by another instance or error, the Speed reached (InVelocity) will be reset.</p> <p>The Error flag (Error) will be turned ON and Error code (ErrorID) will be output when an error related to this FB occurs.</p> <p>These statuses, Speed reached (InVelocity)/ Error flag (Error)/ Error code (ErrorID), will be reset when Start (Execute) is turned OFF. If Start (Execute) was turned OFF before positioning is completed, the status will be set for at least one cycle when a corresponding condition occurs.</p>	
<b>Kind of FB definition</b>	Connect Always ON type Connect the EN input to the Always ON Flag (P_ON). The same instance cannot be used in two or more places.	
<b>FB precautions</b>	<ul style="list-style-type: none"> <li>• When using the Pulse output 0&amp;1 or 2&amp;3 simultaneously, use the same Pulse output method for them.</li> <li>• When speed is changed by the other command before the speed reaching, this FB will output an error.</li> <li>• Turning ON the input to the Start (Execute) during speed control will cause multistart, which then leads to speed control with the speed set in Speed command (Velocity).</li> <li>• When already in speed control operation, direction specification (sign of the Speed command (Velocity)) will be ignored and only the speed will be changed. To reverse the direction of the operation, stop the operation once and execute the speed command with the opposite direction specified.</li> </ul>	
<b>EN input condition</b>	<ul style="list-style-type: none"> <li>• Connect the EN input to the Always ON Flag (P_ON).</li> <li>• If a different type of bit is connected to EN, the FB outputs will be maintained when the connected bit is turned OFF.</li> </ul>	
<b>Restrictions Other</b>	<ul style="list-style-type: none"> <li>• During positioning operation, this FB can not be executed.</li> <li>• During operations by ACC, discrete, commands, this FB cannot be executed during the Origin Search operation.</li> </ul>	



■ Variable Table  
Input Variables

Name	Variable name	Data type	Default	Range	Description
EN	EN	BOOL			1 (ON): Starts FB 0 (OFF): Does not start FB
Axis No.	Axis	INT	&0	&0 to &3	&0: Pulse output 0, &1: Pulse output 1 &2: Pulse output 2, &3: Pulse output 3
Start	Execute	BOOL	0(OFF)		↑ : Starts speed control
Speed command	Velocity	REAL	+0.0	-100000.0 to +1000000.0	Specifies the target speed. Unit: Hz
Acceleration rate	Acceleration	REAL	+1.0	+1.0 to +65535.0	Specifies the acceleration rate. Unit: Hz/4ms (Increase (Hz) in Pulse frequency per Pulse control period (4ms))
Pulse output method	OutPulseSelect	INT	&0	&0 to &1	&0: CW/CCW output &1: Pulse + direction output

Output Variables

Name	Variable name	Data type	Range	Description
ENO	ENO	BOOL		1 (ON): FB operating normally 0 (OFF): FB not operating normally
Speed reached	Invelocity	BOOL		1 (ON) indicates that the target speed has been reached.
Error flag	Error	BOOL		1 (ON) indicates that an error has occurred in the FB.
Error code (May be omitted)	ErrorID	WORD		The error code of the error occurred in the FB will be output. For details of the errors, refer to the sections of the manual listed in the Related manuals above. When Unit No. or Axis. No. is out of the range, #0000 will be output.

Revision History

Version	Date	Contents
1.00	2012.2.	Based on Function Block: _NCCPU030_MoveVelocity_REAL

Note

This manual is a reference that explains the function block functions. It does not explain the operational limitations of Units, components, or combinations of Units and components. Always read and understand the Operation Manuals for the system's Units and other components before using them.