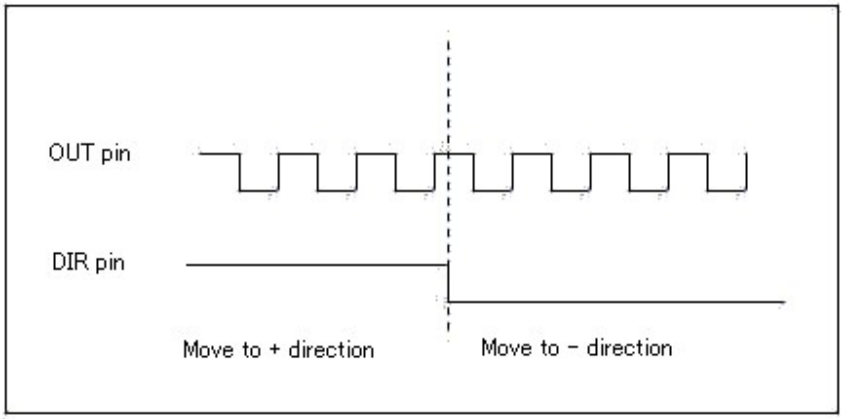
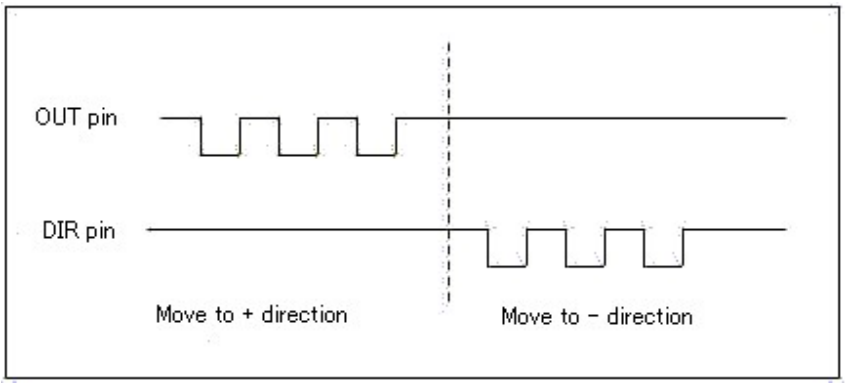
Pulse Output Mode

Configurable number of axes	Four axes can be configured independently.

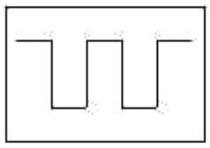
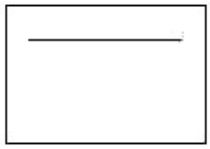
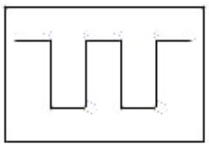
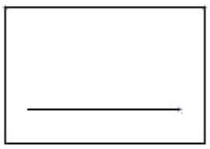
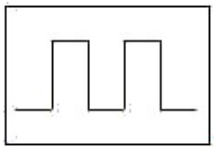
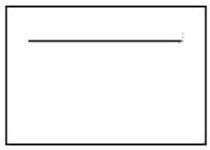
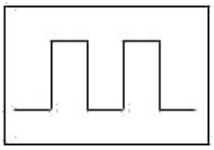
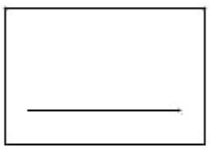
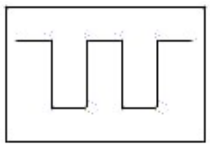
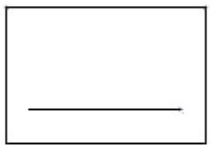
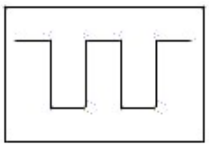
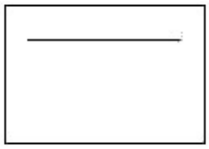
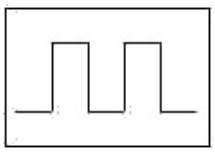
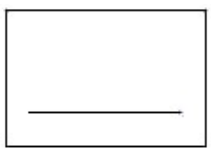
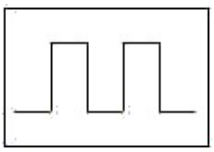
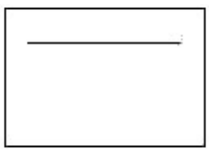
Description	The command pulse output mode is selectable from "pulse/direction mode" or "2-pulse mode". This configuration function selects an appropriate pulse output mode for the specifications of your motor driver.
	Pulse/Direction Mode
	This mode outputs pulse from OUT pin, and direction identification signal from DIR pin. 
	Two-pulse mode
	This mode outputs (+) direction pulse from OUT pin, and (-) direction pulse from DIR pin. 
Configuration Example	**Multi Function DLL**
	Use the MTR_METHOD identifier of the MtnSetPulseOut function for configuration.

Output Logic for OUT Signal and DIR Signal

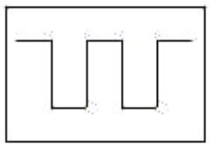
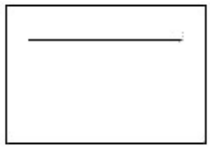
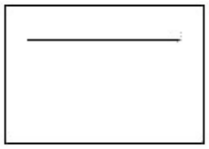
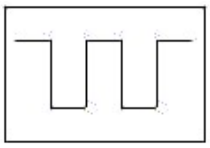
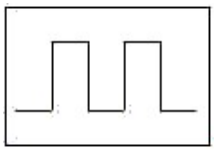
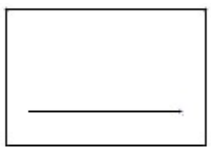
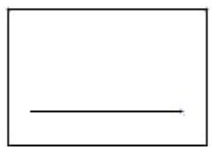
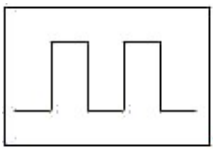
Configurable number of axes	Four axes can be configured independently.

<table>
<tr><td>Description</td><td>
The output logic (Positive/negative logic) for OUT and DIR signals which output pulse can be configured.

Positive/Negative Logic Configuration in Pulse/Direction Mode

The pulse/direction mode can configure the following 4 patterns of positive/negative logics.
<table>
<tr><td colspan="2">Logic configuration</td><td colspan="2">(+) direction motion</td><td colspan="2">(-) direction motion</td></tr>
<tr><td>OUT</td><td>DIR</td><td>OUT output</td><td>DIR output</td><td>OUT output</td><td>DIR output</td></tr>
<tr><td>Negative</td><td>Negative</td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>Positive</td><td>Negative</td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>Negative</td><td>Positive</td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>Positive</td><td>Positive</td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
</table>

Positive/Negative Logic Configuration in Two-Pulse Mode

The 2-pulse mode can configure the following 2 patterns of positive/negative logics.
<table>
<tr><td colspan="2">Logic configuration</td><td colspan="2">(+) direction motion</td><td colspan="2">(-) direction motion</td></tr>
<tr><td>OUT</td><td>DIR</td><td>OUT output</td><td>DIR output</td><td>OUT output</td><td>DIR output</td></tr>
<tr><td>Negative</td><td>Negative</td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
<tr><td>Positive</td><td>Positive</td><td>  </td><td>  </td><td>  </td><td>  </td></tr>
</table>
</td></tr>
<tr><td>Configuration Example</td><td>
Multi Function DLL

Use the MTR_METHOD identifier of the MtnSetPulseOut function for configuration.
</td></tr>
</table>

Direction Switching Timer Motion

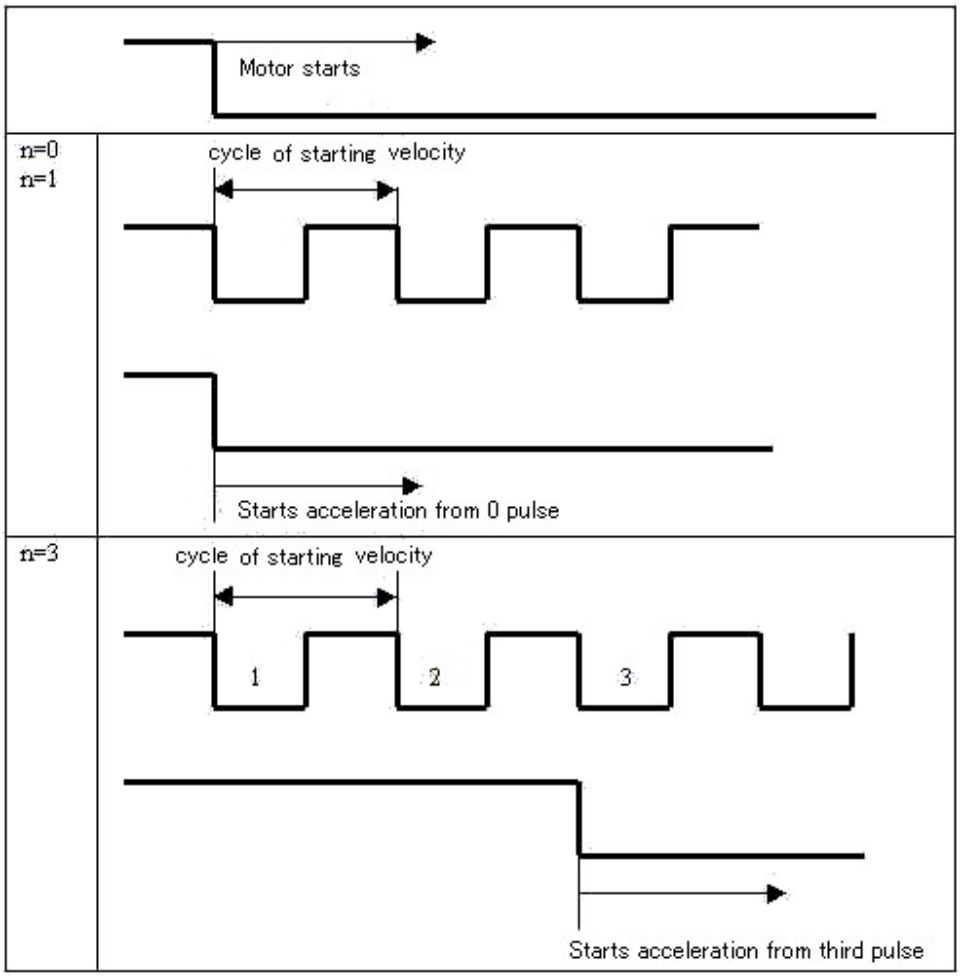
Configurable number of axes	Four axes can be configured independently.

Description	This function is used to make some time between the change of the direction discriminant signal and reception of the command pulse in a motor driver of pulse/direction mode. By enabling this configuration, motion start delays for the time of the direction switching timer (approximately 200μs) after the direction discriminant signal changes.	
Configuration Example	**Multi Function DLL**	
	Use the MTR_METHOD identifier of the MtnSetPulseOut function for configuration.	

Idling Pulse Output

Configurable number of axes	Four axes can be configured independently.

Description	This function start to accelerate after outputting a couple of pulses at a start-up velocity when acceleration and deceleration motion starts. To avoid step-out of stepping motor, set the start-up velocity to faster rate in acceleration and deceleration control of the stepping motor.
	Configuration of Idling Pulse and Acceleration Timing
	Starts to accelerate at the timing of outputting the n^{th} pulse. The acceleration timing is as follows.



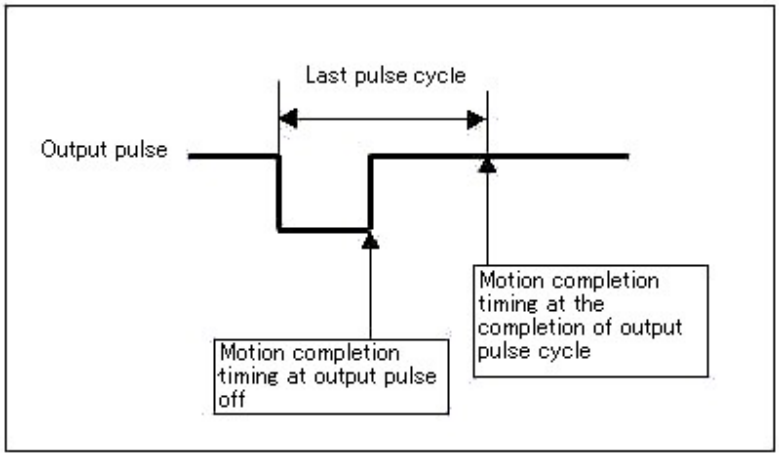
The idling pulse count is included in the pulse count of specified moving quantity for motions which specify the pulse count of moving quantity such as positioning motion.

Configuration Example	**Multi Function DLL**	
	Use the MTR_IDLING identifier of the MtnSetPulseOut function for configuration.	

Pulse Output Completion Timing

Configurable number of axes	Four axes can be configured independently.

Description	The timing at pulse output stop (motor stop) is selectable from the followings.
	When the cycle of output frequency is completed
	The motion is regarded as completion when the last pulse cycle is completed. The down-time of pulse output is secured even if the output start again immediately after stop.
	When pulse is off
	The motion is completed without waiting until the last pulse cycle finishes.
	When INP signal is input



Configuration Example	**Multi Function DLL**	
	Use the MTR_FINISH_FLAG identifier of the MtnSetPulseOut function for configuration.	

Output Pulse Width Control

Configurable number of axes	Four axes can be configured independently.

Description	The function controls the output pulse width to make the stop timing faster.	
	When the velocity of output pulse is lower than approximately 2.4 KHz, which is 1/8192 of base clock (19.6608 MHz), the pulse width is constant; 4096 cycles (approximately 200 µs) of base clock. If the velocity is faster than it, the duty ratio is constant; approximately 50 %. The output pulse width can be fixed to approximately 50%.	
Configuration Example	**Multi Function DLL**	
	Use the MTR_METHOD identifier of the MtnSetPulseOut function for configuration.	

[Top]