



This function block makes it easy to implement Linear and Circular Interpolation motion with a minimum of programming.

Application Description

Many applications require a motion path that consists of multiple linear and/or arc segments in 2D or 3D space with segment-specific feed rates.

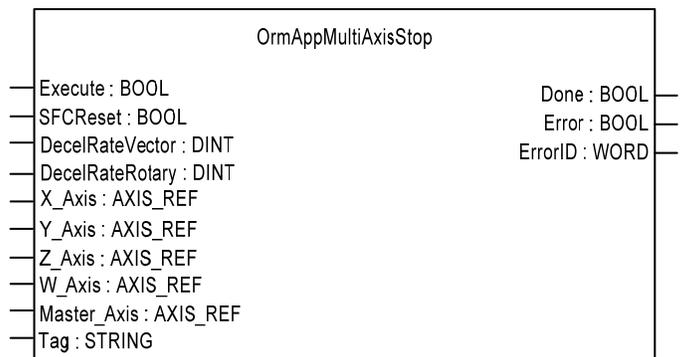
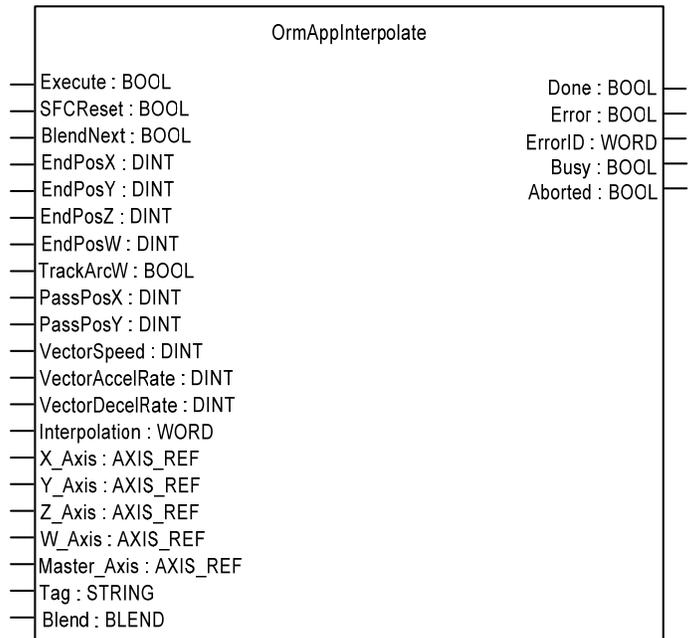
OrmAppInterpolate provides the ability to execute a linear interpolation move on up to three linear axes (X, Y, Z) and one rotary axis (W - yaw) or circular interpolation move in XY plane with synchronized rotary W and Z axes. This functionality is done in a single, easy-to-use function block. Executing a series of function block instances (segments) will produce complex continuous multi axis 3D motion. Each segment motion can either complete to a stop or smoothly blend into the next segment motion.

OrmAppMultiAxisStop is used for a synchronized stop on multiple axes.

As you program the path using **OrmAppInterpolate**, you specify the vector speeds at which the X, Y and Z axes will move through each segment. For linear interpolation, motion is processed so the X, Y and Z axes will move at the specified vector speed. The W axes will complete its motion in the same time as the X, Y, Z.

For circular interpolation the arc is defined with three points: Start position, Passing position and End position. The W-axis can be configured to follow the arc tangent angle or rotate to a specific angle when XY motion along the arc is finished.

When **OrmAppInterpolate** is started, it will automatically move all the axes to their positions at the programmed vector speed regardless of where the axes are initially positioned.



¹The Interpolation function block requires an SMLC capable of controlling the desired number of axes plus one virtual axis.