



## Cam Absolute Application Function Block

Software tools to implement Cam Absolute application

This function block makes it easy to implement a Teachable Continuous Path Motion application with a minimum of programming.

### Application Description

Many robotic applications require a path to be taught on multiple axes<sup>1</sup> by jogging the axes along the path and teaching positions along the way. *OrmAppCamAbs\_Teach* provides this capability for up to 6 axes<sup>1</sup> in a single easy to use function block.

Once the path positions have been taught.

*OrmAppCamAbs\_Save* can save the taught positions and programmed speeds to a comma separated variable (.csv) file for off-line inspection or editing.

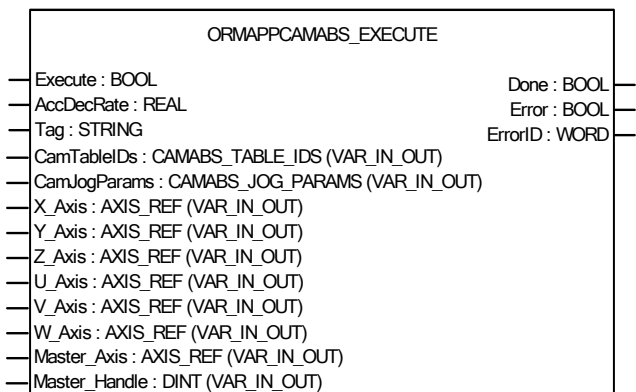
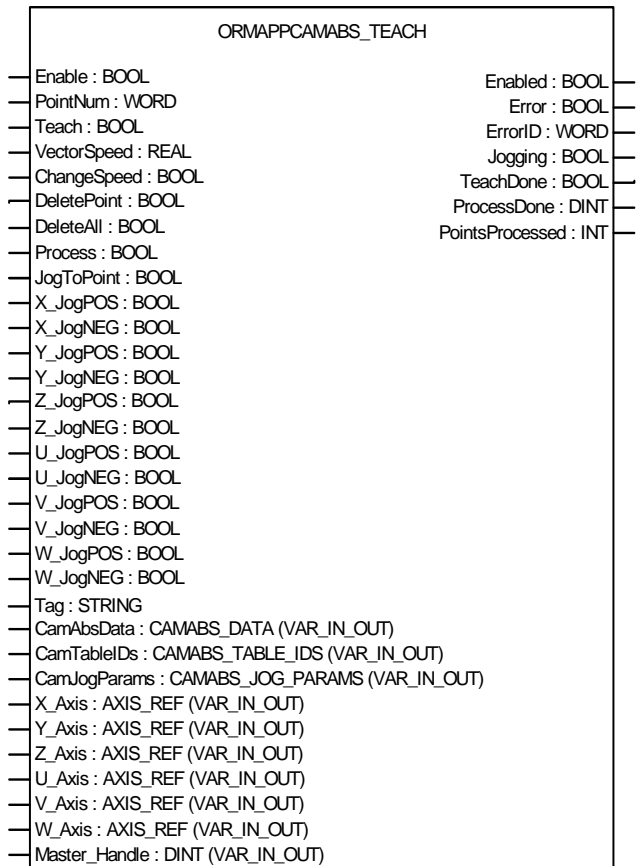
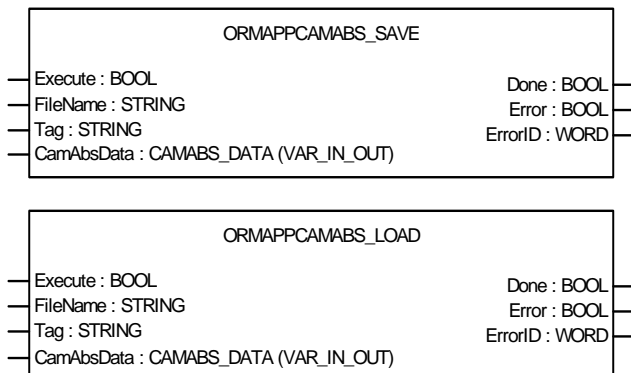
*OrmAppCamAbs\_Load* allows you to load the positions, etc. from a comma separated variable (.csv) file.

*OrmAppCamAbs\_Execute* will move the axes through the taught path in synchronization with an external pacer. This allows you to synchronize the path to another part of the machine. Alternatively, you may use a virtual pacer, which will allow you to adjust the speed with which the axes move through the path on the fly.

As you program the path using *OrmAppCamAbs\_Teach*, you specify the vector speeds at which the X, Y and Z-axes will move through each segment. The U, V and W-axes will make their moves in the same time as X, Y and Z. If For any given segment the X, Y and Z-axes do not need to move.

*OrmAppCamAbs\_Execute* will use the U, V and W axes to calculate the vector speed.

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



<sup>1</sup>The Cam Absolute function block requires an SMLC capable of controlling the desired number of axes plus one pacer or virtual pacer axis.