FAQ

YASKAWA

Title: How can a virtual master position be captured when a signal is received from a physical input?

Product(s): MP3200iec, MP2300iec, MP2600iec, MP3300iec, MotionWorks IEC	DOC. NO. **CNT-7ULXB5**

Since a virtual axis doesn't have any hardware associated with it, it can be difficult to latch a position on a virtual axis. Latching a position on a virtual axis based upon a physical input can come in handy especially when a real axis is being geared off of a virtual axis. This can be accomplished by taking advantage of a relatively simple equation and using the latch input from a real axis in the system.

$$\boldsymbol{T} = \frac{[(Real\ Axis\ Current\ Position) - (Real\ Axis\ Latch\ Position)]}{Real\ Axis\ Speed}(\quad)$$

$$Virtual\ Latch\ Position = [(Virtual\ Current\ Position) - (VirtualVelocity * \boldsymbol{T})]$$

Because the real axis latched position is grabbed at the high speed input rate instead of the application code update rate, you should be able to attain a higher level of accuracy when latching a virtual axis by using this method.

See Page 2 for example code.

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