

TB0377 Setting Beckhoff Homing To Zero Pulse

The homing setup parameters for a Beckhoff system are unclear

Contents

- Problem
- Solution
- Comments

Problem

The homing setup parameters for a Beckhoff system are unclear. The MC_HOME function block is used to trigger the home of the axis, and the axis uses setup parameters from the System Manager Axes->Enc.

Reference Mode : Referencing mode as described above (*Plc CAM, Hardware Sync, Hardware Latch Pos, Hardware Latch Neg, Software Sync*). The *default* mode corresponds to *Plc CAM* mode.

The two referencing modes that are important are PLC_Cam and Software Sync.

- PLC cam just uses the sensor,
- Software Sync uses the sensor then the zero pulse on the encoder.

The preferred mode would be Software Sync because this does not then rely on the sensor accuracy

Solution

Following a problem on Z057 with accurate homing, the Reference Mode setting was checked. It is set to "Default", meaning PLC_Cam mode. Setting this to Software Sync and testing changed the datum position considerably (which is a good thing).

Changing this parameter should improve the accuracy of the datum point but note it will need to be reset afterwards.

